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CONTENTS

Research Papers

A CRITICAL REVIEW OF LITERATURE ON DIGITAL BANKING SERVICES	1 – 5
Bhavna Deshmukh and Dr. Shraddha Bhome	
ACCOUNTING EDUCATION IN INDIA AND USA: A COMPARATIVE STUDY	6 – 14
Amit Tambe	
A STUDY ON WEALTH MANAGEMENT SERVICES - AN EMERGING FINANCIAL SERVICE INDUSTRY IN INDIA	15 -19
Arpita Atibudhi	
A STUDY ON INVESTMENT PATTERN FACULTIES IN MUMBAI WITH SPECIAL REFERENCE TO THEIR GENDER	20 – 24
Dr. Veena Prasad	
STUDY ON CUSTOMER SATISFACTION LEVEL TOWARDS BANKING PRODUCTS AND SERVICES OFFERED BY BANKS	25 – 28
Dr. Sunita S Yadav	
ARTIFICIAL INTELLIGENCE & IT'S APPLICATIONS	29 – 32
Omkar Lanjekar, Saurabh Pandey and Ankush Pal	
BUSINESS INTELLIGENCE AND IT TOOLS	33 – 35
Deepak Abhiman Dhage and Azharuddin Fakruddin Shaikh	
CYBER CRIMES- CHALLENGES INDIAN CONTEXT	36 – 37
Kirandeви Rajendra Pal	
DEMONETIZATION	38 – 44
Nandini Ramesh	
REAL LIFE APPLICATION OF DERIVATIVES	45 – 46
Divya S. Patel	
A REPORT ON CONSUMER BEHAVIOUR TOWARDS FMCG PRODUCTS WITH RESPECT TO HUL	47 – 53
Stephen Pillai	
DIGITILIZATION	54 – 58
Nandini Ramesh	

STUDY ON “CRYPTOGRAPHY IN E-COMMERCE”	59 – 62
Dipti Parab	
EFFECT OF DOLLAR PRICE ON CRUDE OIL PRICE FLUCTUATION WITH REFERENCE TO INDIA	63 – 65
Sandesh Ramakanth Bhat and Pragathi Prakash	
SMART ALERT: A 4-IN-1 DEVICE TO ASK FOR HELP IN EMERGENCY	66 – 68
Shantanu Kelaskar, Kaustubh Pawar and Madhavi Amondkar	
E-WALLET THE NEW CASHLESS INDIA	69 – 73
Sohil Altaf Pirani and Mohammed Najeeb Chawre	
HR TRENDS IN GLOBALIZATION	74 – 78
Dr. Mrunal Mule	
JOURNALISM IN THE DIGITAL AGE: TRENDS AND TECHNOLOGY	79 – 81
Pooja Naresh Singh	
THE ROLE AND CHALLENGES FOR AUDITING IN BANKING SECTOR	82 – 86
Prof. Jyothi Brijendra Yadav and Prof. Sadhana Mishra	
TRENDS IN HUMAN RESOURCE MANAGEMENT	87 – 89
Harshada Rambhau Shinde	
ADVANCEMENT IN WOMEN ENTREPRENEURSHIP IN INDIAN PERSPECTIVE	90 – 92
Shankarrao Mahajan	
MOBILE BANKING AND IT’S APPLICATION	93 – 96
Vidhi Shrivastav, Preeti Yadav and Shivangi Bist	
ROLE OF ICT IN MARKETING AGRICULTURAL OUTPUT	97 – 102
Dr. Shakeela Banu C	
MANAGEMENT OF NON-PERFORMING ASSETS OF INDIAN BANKS: A PERSPECTIVE	103 – 108
Neha N. Salagare	
TECHNOLOGICAL TRENDS IN BANKING	109 – 111
Prof. Pratima Singh	
PYTHON AND ITS USAGE IN VARIOUS PLATFORM	112 – 114
Poojadevi Sardar Gupta	
GREEN TECHNOLOGIES IN 21 CENTURY	115 – 117
Sunil Rajaram Mangle	

ENTREPRENEURSHIP AND SUSTAINABLE DEVELOPMENT "A STUDY ON SUSTAINABLE DEVELOPMENT A NEW PARADIGM AMONG ENTREPRENEURS AND RESTRAINTS OF SUSTAINOPRENEURS"	118 – 126
Prof. Bindu Narayan V, Priyanka H P and Prashanth Kumar V	
INTERNET OF THINGS & ITS APPLICATIONS	127 – 130
Anuja Vilas Ghegadmam and Kajal Venkatswami Yangandala	
A STUDY ON WOMEN ENTERPRENEURSHIP CALLENGESAND PROSPECTA IN NAVI MUMBAI	131 – 134
Sunita P. Sonar	
ORGANIZED RETAILING IN INDIA- AN EMPIRICAL STUDY OF APPROPRIATE FORMATS AND EXPECTED TRENDS	135 – 139
Prof. Sushil Dubey	
CRITICAL STUDY OF BSE AFTER LPG MODEL	140 – 142
Rohini Sakhamam Yevale	
THE ROLE OF BIG DATA IN BUSINESS	143 – 147
Sudharshan Shetty and Abhishek Sanil	
THE FUTURE OF CELLULAR AGRICULTURE IN INDIA	148 – 150
Shaikh Rasidunnisa	
MIOT (MEDICAL INTERNET OF THINGS): HOW IT IS REVOLUTIONIZING HEALTHCARE WITH ITS POTENTIAL AND SHORTCOMINGS	151 – 156
Sandeep Vishwakarma	
A RESEARCH ON NON-PERFORMING ASSETS	157 – 159
Rahul Mukherjee and Dr.Jaya Mangala	
+VE - WORKPLACE SPIRITUALITY @ HRM- STEP TOWARDS FULL LIFE	160 – 164
Joseph John Fernandes	
SMART MEDICINE BOX	165 – 168
Rohit Gajanan Birwatkar, Tanvi Prakash Gurav and Seema Vishwakarma	
INTER-DISCIPLINARY NATIONAL RESEARCH CONFERENCE ON CHANGING TRENDS IN BANKING COMMERCE & TECHNOLOGY	169 – 179
Priti S. Mahajan	
STEPS TOWARDS GIRL CHILD PROSPERITY IN INDIA : SUKANYA SAMRIDDHI YOJANA	180 – 182
Persiyal Punitha Malar	
INFORMATION TECHNOLOGY FUTURE IN ARTIFICIAL INTELLIGENCE	183 – 187
Sunanda Sunil Mulgund	

TECHNOLOGY TRENDS AFFECTING THE BANKING INDUSTRY	188 – 191
Namrata Dube	
TO STUDY THE ROLE OF INTERNET OF THINGS IN SMART CLASSROOM	192 – 194
Nitesh N Shukla	
HUMAN-COMPUTER INTERACTION	195 – 198
Yogesh Rokde and Neeraj Tiwari	
IMPACT OF GST ON INDIAN ECONOMY	199 – 203
Dr. Sunita S Yadav	
LOYALTY OF MEN’S BRANDED APPAREL SHOPPERS TOWARDS DEPARTMENT STORES IN THE CITY OF MUMBAI	204 – 208
Stephen Pillai	
RECENT TRENDS IN ENTREPRENEURSHIP IN INDIA	209 – 212
Dr. Amit Verma and Dr. Veena Prasad Vemuri	
IIOT SECURITY	213 – 217
Gargi V. Kulkarni and Harish Chandar	
AN ANALYSIS OF CONSUMER’S PERCEPTION OF DIGITAL PAYMENT USAGE IN INDORE	218 – 223
Dr. Suhas Dhande and Harsha S. Lalwani	
ARTIFICIAL INTELLIGENCE: EMERGING TREND IN THE INDIAN EDUCATION SECTOR	224 – 227
Vijayalaxmi S Suvarna	
IMPACT OF BELOW-THE-LINE PROMOTIONAL ACTIVITIES ON CONSUMER’S BUYING BEHAVIOUR AT SHOPPING MALLS IN PUNE CITY	228 – 231
Prof. Tejashri Talla and Dr. Satish Warpade	
DEMONETIZATION AND ITS IMPACT ON INDIAN ECONOMY	232 – 235
Srushti Rajesh Ahire and Srushti Ganesh Kamat	
THE DOMAINS OF STARTUP ECOSYSTEM: IS THE FOCAL POINT, THE CUSTOMER OR THE IDEA?	236 – 244
Geethanjali G and Jayaprakash Reddy	
PRE AND POST RECESSION ANALYSIS OF PERFORMANCE OF GOLD LOAN COMPANIES IN THANE REGION	245 – 248
Dr. Subhash D. Pawar	
A CRITICAL STUDY ON HUMAN RESOURCE PRACTICES IN PHARMACEUTICAL COMPANIES WRT. TO AGE	249 – 255
Dr. Veena Prasad	

ETHICAL HACKING: A STUDY WITH RESPECT TO EXPLORING RECONNAISSANCE TECHNIQUES, MALWARE THREATS AND THEIR COUNTERMEASURES	256 – 258
Jasmeet Kaur Ghai, Kamini Patil, Bhagyashree Bonde and Dr. Pradeep Manjrekar	
USAGE OF - SOCIAL – COMMERCE: A BOON OR A BANE	259 – 263
Prof. Chandrakala Srivastava	
IMPACT OF ARTIFICIAL INTELLIGENCE IN BUSINESS INTELLIGENCE	264– 266
Gunjan Agrawal	
INTERNET OF THINGS	267 – 270
Agnes Antony	
A STUDY ON SERVICE QUALITY ASSESSMENT OF RETAIL APPAREL BUSINESS	271 – 276
Kanchana Nikhil Sattur and Dr. Vinita Pimpale	
EMERGING TRENDS OF INVESTMENT THROUGH MUTUAL FUNDS AND SYSTEMATIC INVESTMENT PLANS: INDIAN CONTEXT	277 – 282
Dr. Mrunal Mule	
COMPARATIVE STUDY OF TOTAL COST, REVENUE & PROFITABILITY OF SUB-DISTRIBUTORS OF DAIRY BUSINESS IN THANE CITY	283 – 286
Prof. Shilpa Palande	
ROLE AND BEHAVIOUR OF WOMEN IN PURCHASE DECISION MAKING	287 – 289
Shahin Shaikh	
ROLE OF TECHNOLOGY IN TRANSFORMING INDIA	290 – 292
Roza R Vasave and Mansi Thakkar Joisher	
ROLE OF WOMEN IN INDIAN TOURISM INDUSTRY	293 – 297
Veenashree Parmar and Sadhana Mishra	
A STUDY OF IMPACT OF COMPETENCY MAPPING PRACTICES ON THE ORGANISATIONAL PERFORMANCE	298 – 300
Prof. Neha Dalvi	
STRESS MANAGEMENT OF CLERICAL STAFF WORKING IN STATE BANK OF INDIA.	301 – 303
Dr. Kailash R. Anekar	
DIGITALISATION IN FINANCIAL TRANSACTIONS: AN ANALYSIS OF CONSUMER PREFERENCES	304 – 306
Dr. K. K. Sunitha	
A STUDY ON CASHLESS ECONOMY IN THE POST DEMONETIZATION PERIOD IN INDIA: CHALLENGES AND OPPORTUNITIES	307 – 308
Prof. Tejal Urvin Shah	

CHANGING MOTIVATIONAL FACTORS AT DIFFERENT CAREER STAGES OF EMPLOYEES	309 – 311
Priyanka Tatya Sule	
A STUDY OF RISING FRAUDULENT PRACTICES IN INSURANCE SECTOR IN INDIA	312 – 316
Prof. Omkar Milind Sobalkar	
IOT AS A BOON FOR FARMERS	317 – 320
Sameeksha Mestry, Mahendrakumar Gubbala and Ashwini Koyande	
DEMONETISATION AND FINANCIAL INCLUSION: A SURGICAL SUMMARY	321 – 323
Anita Das	
ARDUINO BASED SMART AGRICULTURE SYSTEM	324 – 327
Manoj Singh and Swati Vitkar	
A STUDY ON ‘PERCEPTION OF FACULTY MEMBERS OF DEGREE COLLEGES IN MUMBAI TOWARDS USE OF ICT IN TEACHING’	328 – 332
Dr. Manisha Preniel Nair	
A STUDY OF EFFECTS OF DEMONETISATION	333 – 337
Irvin Kaur	
DEMONETIZATION	338 – 340
Sadhana Maurya	
ISSUES AND CHALLENGES FOR APPLICATION OF DIGITALIZATION IN RURAL BANKING	341 – 344
Arunkumar Vishwakarma	
FUTURE IN ARTIFICIAL INTELLIGENCE	345 – 349
Anjana Purkait	
EMPLOYEE EMPOWERMENT AND ITS EFFECT ON ORGANIZATIONAL PERFORMANCE	350 – 354
Teena Jaculin. G	
DIGITAL PIRACY	355 – 357
Smita M. Junnarkar	
PROMOTING SELF HELP GROUPS THROUGH MICROFINANCE-WITH SPECIAL REFERENCE TO BANK OF MAHARASHTRA	358 – 363
Farheen Ali Kunatil	
IMPACT OF NPA ON INDIAN ECONOMY	364 – 367
Sangam Koli	
FUTURE OF ARTIFICIAL INTELLIGENCE – SAFE AI DEVELOPMENT	368 – 369
Jhumur Dasgupta	

ECONOMIC EMPOWERMENT: A STUDY ON FINANCIAL LITERACY AS AN IMPORTANT FACTOR FOR ECONOMIC DEVELOPMENT AND ECONOMIC EMPOWERMENT OF PEOPLE OF THANE- KAUSA REGION	370 – 374
Khan Saima Shoeb	
RECENT TRENDS IN ONLINE MARKETING	375 – 379
Gurneet Kaur	
REQUIREMENT ANALYSIS FOR AN EFFECTIVE mHEALTH SOLUTION FOR NEWBORN CARE USING TOPIC MODELLING ON APP REVIEWS	380 – 384
Maya Nair and Dr. Swati Vitkar	
NPA CRISIS IN INDIAN BANKING SYSTEM	385 – 389
Prof. Isha Raju Chowdhri	
PERFORMANCE EVALUATION OF CO-OPERATIVE BANKS IN INDIA	390 – 395
Dr. Sunil Bhaskar Chandanshive	
USE OF ARTIFICIAL INTELLIGENCE TECHNOLOGY FOR MANAGEMENT OF INDIA'S COASTAL SECURITY	396 – 399
Kavita Sharma	
DETERMINING FACTORS OF SERVICE QUALITY IN RETAIL STORES USING 7A MODEL	400 – 405
Prof. Vijayalakshmi Kannan	
WOMEN ENTREPRENEURSHIP IN NEW ERA: OPPORTUNITIES AND CHALLENGES	406 – 410
Dr. Pallavi Shah	
MAKE IN INDIA AND IT's RELATION WITH INFLOW OF FOREIGN DIRECT INVESTMENT	411 – 416
Dr. Mayuresh Anil Mule	
CHANGING TRENDS IN COMMERCE AND TECHNOLOGY	417 – 418
Prof. Usha Chawla	
CONTACTLESS CARDS ARE SAFE TO USE: MYTH OR REALITY. A STUDY TO UNDERSTAND THE FINANCIAL LITERACY AMONGST INVESTORS	419 – 422
Dr. Pallavi Shah	

A CRITICAL REVIEW OF LITERATURE ON DIGITAL BANKING SERVICES

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ABSTRACT

Government of India introduces Digital India campaign which initiatives Digitalisation in every field. Increased use of Mobile phones and Internet creating more awareness about digital payment. Internet has introduced E-marketing. Internet banking provides fast, easy to use, convenience, Anytime-Anywhere, time saving efficient services which are preferred by Banking institution and Bank customers. It is a need of today's Global economy. Digitalisation of banking services maintain transparency and accuracy in Banking transaction. Up gradation of ATM's, debit card, credit card, smart cards and app economy linked with customers orientation to increase efficiency of digital banking services.

Keywords: Digital banking, Online banking, Electronic banking service

INTRODUCTION

Digitalisation means using computer devices. Digital banking is a step towards Online Banking through INTERNET. It is the transformation from traditional banking to modernisation of Banking and it is On-going process. It requires high level of automation and web based services.

Digital banking provides easy, fast, time saving, convenient, paperless access of financial data and transaction through computer devices such as desktop, mobile phones, ATM machines etc. After new economic policy 1991 Indian banking sector is exposed to Globalised banking sector. Without the acceptance of Information technology it was very difficult for Indian banks to face competition with international banks. At present banking services are access to Debit card, Credit card, Internet banking, ATMs, Tele banking, Mobile banking, NEFT /RTGS through EFT. Indian customers are now using digital technology for accessing banking services.

In July 2015, Government of India announced DIGITAL INDIA which covers nine pillars of DIGITAL INDIA. Such as 1) Broad band highways 2) Mobile connectivity 3) Public Internet access 4) E – Governance 5) E-Kranti 6) Information for All 7) Electronic manufacturing 8) IT for jobs 9) Early Harvest Programme. These pillars automatically provides platform of DIGITAL BANKING in banking sectors. Banking sectors top prior agenda is to have DIGITAL TRANSFORMATION.STATEMENT OF

PROBLEM

When we think about future of banking Digital banking is one of the first things that come in mind .Change is constant in every path of human life. World is not same as it was 40 years before. Digital banking is now global behavioural phenomenon, or more accurately, it is the result of significant behavioural change that has occurring all over world since the introduction of INTERNET AND WORLD WIDE WEB.

Lack of education, computer literacy, low income and fear of security restricts the Bank customers to access DIGITAL TECHNOLOGY. India is moving towards DIGITAL INDIA. It is the On-going awareness campaign of DIGITAL TECHNOLOGY.

OBJECTIVE

To study available literature relating to Digital banking services in the banking sector,

RESEARCH METHODOLOGY

This study is based on secondary data. Secondary data is collected from various Research Journals, Articles, Newspapers, Magazines, Trusted publications, Annual reports of different banks and Reserve bank of India.

REVIEW OF LITERATURE

Sushma (2018) explained Innovation, Features, advantages, disadvantages and future prospects of Mobile banking operations. Mobile banking is a dealing of banking transaction through mobile phone device. Mobile is a handy device. Every person use Mobile at least for Calling, photography and use of social media such as What Sapp, Facebook, and Twitter etc. Now- a- days Mobile is a necessity in peoples life. Introduction of Android smart phones with reasonable price along with low cost of Internet data gives easy access of Mobile device with update technology. Customer can deal various financial transaction through Mobile banking like Transfer of money, Payment of Electricity bills, Recharges, Online ticket booking, online shopping, Verification of bank balance and transaction etc. Various banking Apps and Digital wallets can be downloaded in Mobile device. Mobile banking is convenient, Time saving, Fast, No paper work, No need to go physically in Bank and it is

easy to operate. It is easy to overcome Pitfalls of Security issues by setting strong password protection and not sharing of personal codes to anyone, but of course computer literacy is required to conduct smooth functioning of Mobile banking.

Rimsha Majeed ; Dr. Mohd. Fayaz (2018) studied Digital transaction in India with special reference to post demonetisation period. Study is based on secondary data. There are various means of Digital payment such as NEFT (National electronic fund transfer), RTGS (Real time gross settlement), IMPS (Immediate payment system), NACH (National automated clearing house), and CTS (Cheque truncation system) etc. Government of India has taken initiative for Cashless economy through Digital India campaign. Cashless transaction maintains more transparency and with this corruption and illegal activities can be avoided for e.g. Illegal activities in real sector by avoiding stamp duty. Government has introduced BHIM app to digitally empower rural India. It is necessary to frame strong legal framework to resolve cyber-crime issues in Digital transaction. Government is trying level best to empower economy digitally strong.

Deepak Kapoor and Muskan Kaura (2018) examined Impact of Digital payment on banking customers in Ludhiana. The most preferred way of adopting Digital Banking is adoption of ATM cards for cashless transaction. Awareness is increasing regarding other E- banking channels.

S. Venkataganesh and S.Chandrachud (2018) digital campaign of India focuses on Digital Ecosystem, which is progressing over last few years. Internet users in India not only using Internet just to Searching, web surfing and using social media but also using Internet beyond this for Online shopping, online banking, online courses, online business and online movies. Digital India programme given the platform for economics with banks, as everything will be having one form of all the services such as Aadhar card link, applying for driving licences, Bharat Bill payments system, India Stack, NOC, all types of agreements, even the Regional Transport offices are digitalised and insisting online services.

Shobit S. Chandak and Haresh R. (2018) studied the factor influencing Digital payment system usage. Primary data has been used. 219 college going students from the region Bangalore are selected because the students from this region are Tech- savvy and having easy access to Smart phones and Fast Internet Services, which is the requirement of Digital payment mechanism. Study of this paper concludes that, Digital payment ratio is increasing due to use of fast Internet access and Smartphones. Study focuses on two factors such as Product / Service features and Product / Service Marketing. Product / Service features mainly includes fast acceptance, Ease to use, Reasonable price, Security and Privacy, Efficiency, Good Customer Services, Accuracy. Product / Service Marketing Includes Brand Image and Brand Loyalty. Product / Service features awareness has more preferences and increases Digital payment system. Students have started increasing Digital Payment due to variable Product / Service features.

Raghunandan G, et.al (2018) identified need of Electronic customer relationship management an effective tool in the Banking Sector. Indian Banks are using Electronic means over traditional Banking in the form of Information and Communication technology where easy communication can take place with bank customers, such as Internet / online banking, Electronic mail, Electronic fund transfer, Tele – Marketing, Chat online, ATM'S Mobile Banking and Call centers. Customers are getting fast banking services and easy follow up of transactions. Banks are customer centred having quick feedback and can solve customers' query as earliest. Through Electronic means Banks are maintaining Good relationship with customers, which is today's world need.

L.Priya (2018) identified the use of Digital technology in banking sector and measures the factors influencing consumers to adopt computer technology. Banks need to have communication with consumers. To get success and adoption of computer technology, banks should provide easy to understand technology, convenience in operating, secure and fast service. Computer technology is the sophisticated Banking technology. Transaction security and cost effectiveness is the priority of consumer's satisfaction.

M.Franklin and S.G. Balaji (2018) studied "Factors influencing the Banking customers to adopt the E-banking services in Kanyakumari District." Banks and customers prefer E- Banking due to fast, convenient, easy to adopt, anytime- anywhere and cost effectiveness. Primary data has been collected. 431 Bank customers feedback is considered and statistically analysed. Electronic banking increases satisfaction level of customers. Cost effectiveness (lower cost) and fast E- banking services is highly influencing factors of customers.

P Radha Krishna (2017) examined the Architecture, functions of SMART CARDS, advantages and obstacles faced by the consumers while using smart cards technology. Smart card appears like Debit or Credit cards size plastic card but having multiple use functions, such as Identity verification, Mobile communication, Medical

care, Retail shopping, Banking etc. It means all in one card. Study emphasis on Smart card technology usage and its application. Smart card technology usage is fast, time saving and cost effective. There are certain Disadvantages to this system like easily lost, security issues, slow adoption, Risk of identity theft (Hacking, transfer of funds etc.). When taking care of security measures, these drawbacks can be overcome to get advanced technology.

Chandana Goswami and Kama Leswar Boro (2017) studied the “Technology based Banking Behaviour of Urban Customers.” Income status, educational level, gender and standard of living of people have strong impact on adoption of electronic banking. Customers are using ATM’s without hesitation. Customers are induced by the factors, such as fast transaction, easy access, reliability, social influence, self -service, convenience etc. In addition to ATM’s customers are using E- technology for payment of various bill, insurance payment, Dish TV, Mobile bill recharge, online food order, online tickets booking etc. However at the same time customers are with presence of fear of transaction risk, privacy issue and high cost of e- banking services. Present study is with reference to KAMRUP Metro district of ASSAM, INDIA.

A. Joseph Xavier and Ms M. Kala Devi. (2017) studied, Different educational and occupational group and different age group of Bank customers have different approach towards E- banking services. There are student’s class, Business class, Service class and professionals. Every group’s need and awareness of E- BANKING services are different, Bank should contribute on lower and medium class people more to complete their task effectively regarding E- banking services.

P. Suja and A. Dhanalakshmi (2017) changing lifestyle of customers demanding and adopting sophisticated technology of Banking. Customer’s demands user friendly features, convenience, cost effectiveness and security alert banking services.

M.Venkata Rao and K. Kanaka Raju. (2015) studied Impact of Mobile banking on bank customers, mobile banking saves time and effective method of expansion of banking services. Mobile banking requires awareness amongst people. The success of mobile banking depends on the service providers and users of mobile banking services. Mobile banking helps financial institutions to build good relationship with bank customers. It is time saving and convenient. Mobile banking provides all banking services through mobile Tele-communication. Study also found that half of the respondents did not know about NEFT services functions on mobile banking. There are chances of misuse of password. Mobile handsets are handy and correct device to practice mobile banking. If it is lost in transit customer can lose password but Banks can meet reliability.

S.Suresh (2015) studied Data Envelopment Analysis (DEA). Overall Technical Efficiency (OTE) performed by commercial banks measured by DEA. DEA is the mathematical technique to measure OTE. This finding reveals that OTE of commercial banks of India measured above and below average. There is no significant difference between OTE of public and private sector banks.

S.Singh (2014) analysed the Counterfeiting of electronic money risk in E- banking and precautions initiated to overcome such risk. In Electronic banking there is no face to face interaction between Bank and customers which leads to causes like credit card frauds, hacking of records, online transaction frauds etc. Operational risk, legal risk, liquidity risk, security risk etc. associated with e- banking. It is found that the theft of e –money by criminals to obtain funds and goods without payment is a major counterfeiting risk in E- banking. Further banks are liable for counterfeiting E- money risk which is followed by repairing compromising cost.

G.B. Karthikeyan and S. Gnana Sugirtham (2014) compared the earning efficiency of banks before and after the adoption of E- Banking technology services. Nationalised banks, SBI, old private sectors banks group, new private sectors banks group, and foreign banks were considered for comparison study purpose. This finding indicates that use of information technology has positive impact on earning efficiency of banks.

Ashwin G. Modi and Mr. Kiran J. Patel (2012) investigated quality of Internet Banking services and its dimensions. Study was carried out in Gujarat state’s Ahmadabad city. 300 respondents of Internet users bank customers were selected as primary data. Banks should be more attentive towards Quality service, proper action plan and pay more attention to ‘security’ in Internet based banking to meet customer satisfaction.

S. Valli Devasena. (2012) studied Mobile banking services provided by the ICICI bank of TENKASI Taluk. This study Concludes that, to render quality service, ICICI bank should concentrate on customer orientation programme as its culture. Many serious problems were faced by the bank customers such as Default transaction, security alert issues, handset operability, mobile banking fees charges, language problem, transaction limit, time limit etc.

R.K. Uppal and Ms Aditi Baghla (2012) studied that mere introduction of Electronic technology in Banks are not enough. E- Banking technology should be more customer centric not service centric. Awareness programme should be introduced to make awareness of E- banking technology.

P.Rathinam (2012) mobile banking provides safety, transaction based services, Inquiry based services, Updates, Accessibility, Time saving, convenience, new business initiative, fast processing and easy to use services. This study concludes that mobile banking services are positively related with customer's income, education and occupation.

RESEARCH GAP

Thorough study of above literature reveals that lot of focus is given to practices of banks on E- banking or digital banking services, not much studies on the procedures, detailed practices and customers perception regarding e-banking .

CONCLUSION

Digital banking technology is providing convenience, customer friendly service to banks officials and customers. Today almost banks are attempting Digitalisation of banking sector. Digitalisation is a modern concept which overcomes the drawbacks of traditional banking and supports country's strong economic base. Customer perceptions and awareness regarding Digital technology plays important role to improve efficiency in Digital banking. It is an on-going process. It is expected to reduce the errors in Digital banking and improvements in processes and work practices within banks.

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ACCOUNTING EDUCATION IN INDIA AND USA: A COMPARATIVE STUDY

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ABSTRACT

The emerging scenario of accounting education should not be restricted to the traditional accounting rather it should incorporate E-Commerce and software based accounting curriculum. This advance and technical accounting knowledge and skills can make the students to be more professional in their career. This paper presents an analysis of accounting education in India and America, it highlight the major differences in the two countries. The analysis reveals that accounting education in India emphasizes on financial accounting and cost accounting while the emphasis is on cost and management accounting in America. It shows that being firm specific through comprehensive in-house training the Japanese system is in a better position to produce accountants capable of adapting accounting systems to the different work situation which result from technological changes and automation. The current work is based on the secondary data which is collected from different sources like journals; books and research papers to illustrate a model accounting curriculum, developed to meet the needs of future accounting professionals and also encourage change in accounting curriculum. The conclusion based on evidences shows that accounting education, as a whole is still in need to reform so that it proved to be more effective in reducing unemployment and to face the present challenges of global economy in the field of business and industry.

Keyword: Accounting education, Curriculum, Educational institutions, India and USA.

INTRODUCTION

Accounting education is about accounting and education but both are global phenomenon. If there is to be one global accounting education model it need to ensure that it will meet the needs of business and society in all jurisdiction and cultures in all religions of the world. Accounting professionals and academicians have embarked on a process of analyzing and critiquing accounting curricula, since two research paper raised concern about accounting education e.g. American Accounting Association (1986) and Arthur Andersen & Co. et al., (1989). Both papers suggest that without significant change to accounting education, future accountant will not receive the preparation they need to meet the emerging needs of business. However, changes are often difficult and the lack of discussion about teaching and curriculum is a significant barrier to change for many accounting educators. Accounting educator typically and discussing research with colleagues to be a commonplace, comfortable endeavor, but discussion about curriculum, pedagogy, and learning are far less common and comfortable. It is imperative that accountant educators engage in this latter conservation. Boyer (1990) stated that teaching is a dynamic endeavor that must be continuously examined, critiqued, and discussed. In other words, teaching and curriculum development must be considered as scholarship and must be discussed, critiqued and assessed similar to traditional research.

In our country accounting education is imparted to the students in three different stages which start from secondary education, under graduation and post graduation at the different universities, colleges and professional institutions. In the era of globalization and liberalization the business and industry has to face many challenges like up-gradation of the technology, reduction of the cost, quality improvement, satisfaction of the customer, and outsourcing technique (Torres and Albin, 1997). Accounting education in India has not been upgraded to the standard level to face these challenges and fulfill the needs of business and industry in India. Rather it is confined with only a feedback system to the professional institution like ICAI, ICWA and ICSI. Hence, the objective of accounting education has not been able to meet the requirement of present scenario of the business and industry. Each and every educational institution has realized that there is need to update the accounting curriculum in order to meet the advance requirement and expectation of modern business organization (Grover, 1998). Introduction of E-Commerce and Computerized accounting has playing a significant role in various business organizations through

transparency, time saving and cost reduction etc. for fast economic growth and development. Accounting education curriculum should be updated in order to face the challenges of information technology. Researcher of accounting education should think over the up gradation of accounting education to meet the future requirement of the business and industry in India Angelo et al., (1993).

OVERVIEW OF THE LITERATURE

Pattom and Williams (1990) recommended that the fundamental law in the accounting education and research is that it has remained static while in the era of globalization and liberalization the business profession has changed now. They acknowledge that accounting education is becoming increasingly irrelevant if changes are not made according to current requirement of the business organization, employer will be compelled to turn graduates in other discipline. Deppe et al (1991) in their study explained that accounting education must change to meet the requirement of the changing profession of various business organizations and also suggest that accounting student must develop competencies in seven areas; communication skill, information development and distribution skill, decision making skill, knowledge of accounting, auditing, tax, knowledge of business environment, professionalism and leadership development. Elliott (1991) examined that if the accounting profession can determine the measurements which is necessary in the technology-driven, global environment, the need for accounting education will be unquestioned, so the role of the higher education is to produce knowledge worker and teach them how to learn. The study of Flaherty and diamond (1996) indicates that accounting education programmes should prepare for the students to become professional, so they can develop professional skills, fundamental accounting and business knowledge and learn how to attain these different skills which could be able to meet the requirement of various business organizations.

The accounting curriculum should be developed around an informal development and communication process. Essential components should be decision making and information in organization, design and use of information systems, financial information and public reporting including attestation and knowledge of accounting profession but according to the AECC, Specialized accounting education should be offered primarily at the post baccalaureate level. May et al (1995) posits that majority accounting educators believe that many changes needed in accounting education, but they disagree about the depth and breadth of changes needed. Nelson (1996) explained that an accounting has been taught in same manner since the beginning of the profession, therefore he recommended that it is time to re-think the way accounting is taught and to make dramatic changes, professional organization are also prominent in encouraging changes in accounting education. The institutes of management (IMA, 1994; 1996; 1999) in a series of projects found work ethic, analytical/ problem- solving skills, interpersonal skills, and listening skills to be the most important knowledge, skills and abilities for work as a corporate accountant.

The American Institute of Certified Public Accountant (AICPA, 2000) need core competency framework for entry into the accounting profession which supports a paradigm shift from a content driven to a skill driven accounting curriculum. They recommend and suggest that accounting education must possess functional competencies (decision making, risk analysis, measurement, reporting, research, and leveraging technology); personal competencies (professional demeanor, problem solving and decision making, interaction, leadership, communication, project management and leverage technology) and broad business competencies (strategic/ critical thinking, industry/ sector perspective, resource management, legal perspective, marketing and leverage technology) but this effort is not limited just to the USA. Studies of Thompson (1995); Hardern (1995); Johns (1995), explained the development of competency standard in the UK, Australia, and New Zealand which are based on the belief that competencies is realized through performance, thus standard should be based on job related performance. Albrecht and Sack (2000) study sponsored by the AAA, AICPA, IMA and the big 5 CPA suggest that changes to accounting education have not been pervasive or substantive enough. They indicate that if accounting education does not change, soon it will not survive. This project notes three significant changes in business environment that impact on what accounting students should know and be able to do. First technology has made information less expensive and more readily available, second faster transportation of people; product and idea have made the global economy a reality, third the concentration of investor power has shifted to large mutual and insurance fund.

OBJECTIVES OF THE STUDY

- The present study is based on the following objectives.
- To explain the present position of accounting education in India and USA;
- To compare the accounting education between India and USA; and
- To discuss the importance of policy implementation in accounting education in India.

RESEARCH METHOD

This study is based on the secondary data derived from various research papers, journals, books, published material and UGC rule and guidelines. Various curriculum of accounting education and research has been explored from published manuals of universities and professional institutions. For the purpose of analysis two

universities and professional bodies of India and USA namely Banaras Hindu University (BHU), Institute of Chartered accountants of India (ICAI) and Berry University and American Institutes of Certified Public Accountants (AICPA) have been considered.

SIGNIFICANCE OF THE STUDY

The accounting education imparted by different universities and professional institutions are not substantial to meet the challenges of present scenario. Therefore, the aim of the study is to highlight the change in curriculum of accounting education which will not only help the professional accountant but also be able to generate employability and help to improve the economic condition of the India. The research oriented course curriculum should be introduced in accounting education which will facilitates the professional bodies in order to utilized proper accounting procedure in taxation and legal matter. This research paper seems to be more relevant on the ground of change of accounting education in ordered to cope with the changing business and industrial scenario in our country. Technological development in the field of information technology procedure which can be fit with the present status of business environment so, accounting education will make a revolutionary change in national and international business and industry.

ANALYSIS AND DISCUSSIONS

Pattern of Accounting Education in India The detailed breakdown of subjects studied for accounting majors in different Indian universities shown in Table 1 which have been compiled from official university documents. Further, Table 1 shows the breakdown of the curriculum by category. There are separate categories for accounting, other business, and non business. Some arbitrariness was involved in making these three categories.

Table-1: Breakdown of curriculum by category 3-year Bachelor's degree of Indian Universities

	Number of Hours				Total	
Subjects	semester credit	lecture	Laboratory Study	Total Classroom	Self Study	Hours % of Total
Accounting						
Financial Accounting I	4	60	60	60	60	120
Financial Accounting II	4	60	60	60	60	120
Specialized Account I	4	60	60	60	60	120
Cost Accounting	3	60	60	60	120	120
Specialized Accounts II	4	60	60	60	120	

	Number of Hours				Total	
Subjects	semester credit	lecture	Laboratory Study	Total Classroom	Self Study	Hours % of Total
Advance Company Accounts	4	60	60	60	120	
Income Tax Law & Accounts	4	60	60	60	120	
Auditing	3	60	60	60	120	
Financial Analysis	4	60	60	60	120	
Indirect Tax	3	60	60	60	120	
Secretarial Practices	3	60	60	60	120	
Principle of Insurance	3	60	60	60	120	
Total Accounting	43	720	720	720	1440	33.8
Other Business						
Principles of Management	3		60	60	60	120
Business Environment	3	60	60	60	120	
Monetary Theory	4	60	60	60	120	
Fundamental of Marketing	3	60	60	60	120	
Business organization	3	60	60	60	120	
Banking and Financial	3	60	60	60	120	
Institutions						
Business Entrepreneurship	3	60	60	60	120	

Fundamental of Human						
Resource						
Management	3	60	60	60	120	
Business Regulatory	3	60	60	60	120	
Framework I						
Business Economics I	3	60	60	60	120	
Fundamental of Business	3	60	60	60	120	
Finance						
Business Regulatory	3	60	60	60	120	
Framework II						
Business Economics II	3	60	60	60	120	
Business Mathematics	3	60	60	60	120	
Public Finance	3	60	60	60	120	
Business Statistics	4	60	60	60	120	
Company Law	3	60	60	60	120	
Banking Law & Practices	3	60	60	60	120	
Business Ethics &	3	60	60	60	120	
Governance						
Financial Markets in India	3	60	60	60		120
Financial Service	3	60	60	60	120	
Total Other Business	108	1260	1260	1260	2520	59.4
Non Business						
Total Non business	14	120	24	144	144	288
Total	165	2100	24	2124	2124	4248

Each semester represents 72 academic hours of class meetings and one academic hour consists of 60 minutes. There was some arbitrariness in the categorization of some subjects. For example, business statistics were classified as business courses, when in fact they could be either business or mathematics. Non-business course includes: Hindi, English, Basic Statistics, Information technology and Comprehensive Viva-Voce.

Course curriculum of Master degree offer by Indian Universities: Managerial economics, Organizations theory, Managerial accounting, Advanced business statistics, Business finance, Marketing management, Human Resource management, Theory of the firm, Behavioral science, Research methodology, Accounting for planning

c) control, Financial management, Marketing strategy, Banking and Insurance, Computer application in business, Strategic management, Accounting theory, Advanced cost accounting, Management information system, Working capital management, Advanced auditing, Corporate reporting practices, Investment Management, Operation research, Tax planning and Management are the common papers taught in Indian universities. Master of Commerce in Accounting is 83 credit semester programme with 33 credit semester for accounting and 50 credit semester for non-accounting courses. The 50 credit semester may consist of up to 35 credit semesters for business coursework and at least 15 credit semesters for non-business course work. Thus, a student is allowed to complete 33 credits semester for accounting and 50 credit semester for business and non-business coursework. Master of Commerce in accounting programme is designed to provide depth in accounting and breadth in other areas. All accounting courses at the post graduate level are taught primarily using discussions of problems and cases.

Course of Accounting Education offered by Institute of Chartered Accountants of India (ICAI): The Institute is actively engaged in imparting education and training to the students and conducts examinations for them and grants membership to successful candidates and certificates of practice to members intending to practice the profession (Cumming et al., 2001). The curriculum of accounting education provided by Institute of Chartered Accountants of India is: Fundamental of Accounting, Advanced Accounting, Cost Accounting, Management Accounting and Financial Analysis, Quantitative Technique, Direct and Indirect Tax, Income Tax and Central Sales Tax, Fundamentals of Financial Accounting, Cost and Management Accounting, Management Performance Accounting, Advanced Financial Accounting, Quantitative Methods, Advance Financial Management and International Finance, Strategic Tax Management, Management Accounting- Decision

Making& Financial Strategy, Financial Accounting, Company Accounts, Cost and Management Accounting , Legal and Financial Work (Mishra, 2014).

ACCOUNTING EDUCATION IN USA

Accounting education in some of the university in the United States is uniform because the Association to Advance Collegiate Schools of Business (AACSB), the agency that accredits some business schools in the United States, has rigid requirements regarding what must be taught to gain accreditation. Most of the universities that offer a Ph.D. in accounting are AACSB accredited. Therefore, it is decided to use the curriculum requirements of an AACSB accredited school for comparison purposes. Barry University was chosen because it is a small university, with slightly fewer than 9,000 students, and it received AACSB accreditation in April 2003 (McGee & Preobragenskaya, 2008).

Table 2 shows the breakdown of curriculum for the 4-year bachelor's degree in accounting. There are separate categories for accounting, other business, and non business. Barry University uses the semester hour system. Each semester hour represents 15 academic hours of class meetings. One academic hour consists of 50 min. However, for purposes of simplicity, we have defined one academic hour as 60 minute and 1.5 hour is spent in study for each hour spent in class. There was some arbitrariness in the categorization of some subjects. For example, Barry University lists macroeconomics as a social science but we have listed it as a business course. Barry University classifies pre calculus for business and elementary probability and statistics as mathematics courses. We listed them as business courses. Barry lists basic computer applications as a non business course. We classified it as a business course (R.W. McGee, 2008).

Table-2: Breakdown of curriculum by category 4-year Bachelor's degree of Barry University

Subjects	Semester	Credit	hours in class	study hour	Total Hours % of Total
Accounting					
Financial Accounting	3	45			
Managerial Accounting	3	45			
Intermediate Accounting I	3	45			
Intermediate Accounting II	3	45			
Intermediate Accounting III	3	45			
Cost Accounting	3	45			
Federal Income Taxation	3	45			
Accounting Information Systems	3	45			
Advanced Accounting	3	45			
Auditing	3	45			
Total Accounting	30	450	675	1,125	23.8
Other Business					
Introduction to Business	3	45			
Microeconomics	3	45			
Macroeconomics	3	45			
Applications of Statistics in Business	3	45			
Introduction to Information Systems	3	45			
Organization Behavior and Management	3	45			
Operations Management	3	45			
Marketing Concepts and Applications	3	45			
Business Law I	3	45			
International Business	3	45			
Financial Management I	3	45			
Strategic Management	3	45			
Business Electives	3	45			
Basic Computer Applications	3	45			
Precalculus Mathematics for	3	45			

Business					
Elementary Probability & Statistics	3	45			
Social & Ethical Issues in Business	3	45			
Subjects	Semester	Credit	hours in class	study hour	Total Hours % of Total
Total Other Business	51	765	1,148	1,913	40.5
Non-business	45	675	1,013	1,688	35.7
Totals	126	1,890	2,836	4,726	100

Course curriculum of Master in Accounting in Barry University USA: Master of Science in Accounting (MSA) program is designed to prepare you to become a successful accounting professional with a global orientation and a strong sense of ethics and social responsibility. The course work is structured to acquire the relevant knowledge, skills, and abilities to achieve the assurance of learning goals prescribed by AACSB International-The Association to Advance Collegiate Schools of Business (AACSB, 2000). The course curriculum are International Accounting, Contemporary Accounting Theory & Research, Advanced Managerial Accounting, Business Taxation, Advanced Auditing, Not-For-Profit & Governmental Accounting, Technology and Information Systems, Managerial Finance, Social, Legal and Ethical Aspects of Business, Elective (Gainen and Locatelli, 1995).

The certified public accountants are experts in Generally Accepted Accounting Principles, United State federal income tax, and several other areas of United State accounting and financial law such as auditing and taxation. US designation certifying that the student is now competent and expert in the field of US accounting and able to perform auditing and taxation work. The American Institutes of Certified Public Accountants established accountancy as a profession with high professional standards, a strict code of professional ethics, a licensing status and a commitment to serve the public interest (AICPA, 1999).

COMPARISON OF INDIAN ACCOUNTING EDUCATION AND USA

The Indian higher education system is based on the British model, which consists of a three-tier degree structure (bachelor, master, and doctorate). Although it's similar to the system in the U.S., but Indian degree programs are mostly three years in length. Students who complete a three year program are awarded a Bachelor degree. Comparing the accounting curriculum in Indian universities with 165 credit semester to the accounting curriculum at Barry University (USA) with 126 credit semester may be difficult. At Barry University, the total curriculum consists of 126 credit semester, with each semester hour being equivalent to 45 hours spent in class. But each class hour consists of just 50 minute. The curriculum can be completed over 4 years by a full-time student. The curriculum of Indian universities can be completed over 3 year by full time student. Indian universities, study is not measured only in terms of hours spent in class some other factors are included, such as study time and laboratory time.

For comparison purposes, we have assumed that the average student of Barry University spends 1.5 hour studying outside the classroom, and academic hour consists of just 50 minute in USA. For comparison purposes, we decided to compare the Indian 3 year program to the American 4-year bachelor's degree program. While such a choice might seem odd, the reason for it can be justified. Thus, if the goal is to compare the accounting offered by the "average" Russian university to that offered by the average American school, the decision to compare the 3 year Indian bachelor degree program to the 4-year American bachelor's degree program seems most appropriate.

Table 3 compares the accounting curriculum of the Banaras Hindu University and Barry universities selected for comparison purposes. As one might expect, accounting majors spend more time studying two categories of subjects than American counterparts. One reason for the extra study hours in Banaras Hindu University is 60 minute of academic hour whereas the Barry University have only 50 minute of academic hour.

Table-3: Comparison of BHU and Barry University Curricula at Graduation level

	Banaras Hindu University	Barry University		
	Hours	% of Total	Hours	% of Total
Accounting	1,440	33.8	1,125	23.8

Courses				
Other	2,520	59.4	1,913	40.5
Business Courses				
Non	288	6.8	1,688	35.7
business Courses				
Totals	4248	100	4,726	100
Hours per year	1416	1,182		

The comparison could be tightened up a bit if the numbers were annualized. If one divides the Indian total 4,248 hour by 3 and the American total 4,726 hour by 4, the annual study times are 1,416 and 1,182 (hrs) respectively. If these numbers are reliable estimates of time spent studying, that means that the average Indian accounting student spends an additional 234 hour a year studying. If it compares on the basis of total study times, the results are coming that American students spend 4,726 hour earning their graduate degree, compared to 4,248 hour for the average Indian accounting student, a difference of 478 extra hours.

The evidence seems overwhelming, on the surface at least, that the average Indian accounting graduate is better prepared than the average American accounting graduate. Indian universities are more selective regarding whom they allow into their programs and Indian students study many more hours in total as well as in accounting. Indian students spend 1,440 hour studying accounting, compared to 1,125 hour for American students. That's an extra 315 hour. However, there are other factors to consider for example, the quality of Indian textbooks and other study materials may not be as good as those used by American students. Indian accounting texts do not have nearly as many examples as American textbooks. There are no Indian texts that are closely comparable to an American accounting book in terms of depth or breadth of coverage. Furthermore, many Indian students, perhaps the great majority, do not own many accounting textbooks. They are too expensive for the average Indian student. They compensate for this factor by going to the library and reading the books the library has. This approach to study is quite common in Indian universities.

Table 4 shows that, if half of the first year of work experience were included in the American statistics, the American accounting graduates would have 15 credit semester for accounting, compared to 38 credit semester for India, lessening the disparity to 23 credit semester. The goal were to compare the American university accounting program to the Indian university accounting program, since the 2 year is not spent studying accounting, but practicing it. Analysis of total credit spent in accounting over the 2 year period, since this methodology compares both groups over the same time period. However, even if 2 years of data are used, the Indian accounting post graduates still have more credit semester than their American counterparts, 83 credit semesters compared to 30 i.e. an additional 53 credit.

Table-4: Comparison of BHU and Barry University Curricula at Post Graduation level

	BHU	Barry University
Credit Semester	Credit Semester	
Accounting	38	15
Other Business	36	9
Non Business	9	6
Total	83	30

We believe that the most valid comparison of American accounting programs to Indian accounting programs is to compare the 2 year American Master of Science in accounting (MSA) degree to the 2 year of master of commerce (M.Com) in accounting specialization. A Master of Science degree in accounting in American universities need to complete 30 credit semester where Banaras Hindu university need 83 credit semester to complete the master degree.

The Master of Science in Accounting is a 30 credit semester programme with 15 credit semester for accounting courses and 15 credit semester for non-accounting courses which include 9 credit semesters for other business and 6 credit semesters for non business. Whereas Indian universities need 38 credit semester for accounting, 36 credit semester for other business and 9 credit semester for non business.

COMPARISON OF ICAI AND AICPA

There are some career options opened for the students, who want to explore in the field of accounting, finance, business, taxation, etc. that offers them better employment opportunities and good pay. Out of various courses, CA, i.e. Chartered Accountant, is a title recognized worldwide, as a professional designation conferred to qualified accountant and is equal to United State's CPA (Certified Public Accountant). Institute of Chartered

Accountants of India (ICAI) provide study material to their students to become a chartered accountants and they need to complete at least 4 year duration with three level of examination namely foundation, intermediate and final. American Institute of Certified Public Accountants (AICPA) does not provide any study material to their students; become AICPA they have to qualify just 4 exam Within 1 years. Neither one of these certifications are better than the other. They are simply different and used for different purposes.

Syllabus domain: A CPA student learns about IFRS (International Financial Reporting Standards), GAAP (Generally Accepted Accounting Principles) and GAAS (Generally Accepted Accounting Standards). The international knowledge and skills is gained based on United State rules as compared to the CA students who gains knowledge and skills based on Indian laws.

Career Opportunities: A licensed CA professional can have bright opportunities for work in India. This current scenario has huge competition in this field where many firms are recruiting accountants to manage work of United State clients; CPA professionals are taking an edge over the CA professionals. CPA gets the opportunities on the global level which gives them due international recognition while CA professionals are restricted in the matter of opportunities by only geographical Indian border.

Work Experience: CPA students get license when they passes the CPA exams and gains one year work experience in the Certified Public Accountant field on the other hand CA students get license only when a candidate gains minimum 3 years of article-ship in a CA firm.

USA DEGREE OUTWEIGHS OVER INDIA DUE TO MANY REASONS

American accounting education institutions provide quality education to their students and it is surprised to know that copying assignments in the USA is considered plagiarism. The course may also include Curricular Practical Training which enables you to gain practical knowledge (Anon. 1994). Research Opportunities is the most important feature of the American Education System. The universities in the United States of America (USA) have fundamentally research centers which improve the quality of innovation and creativity. Students in United state are getting undergraduate research opportunities and work on high end research projects besides the valued experience; they also get a stipend for it. There's no concept of research in the undergraduate degree in India only we memorize and spit out the contents during the exam (IFAC. 2003). The United State has become the hub of higher education and thousands of International students from all over the country are attracted to the American universities.

This helps to enhance cross-cultural ties with the growth of Multi National Companies; international exposure will be a plus for your profile. American education system is based on credit hours and gives you lots of freedom to retain your academic interests throughout your course of study (McGee, R. W. 2003).

CAREER OPPORTUNITIES FOR ACCOUNTING STUDENTS

Commerce has always been regarded as one of the best academic streams in getting excellent employment opportunities. While many B.Com graduates choose the much tried and tested path of CA, CS and other related fields of study, many who are unable to make the cut for these programmes are left in a lurch with respect to employment opportunities (Carcello, et al.1991). There are several others options, which B.Com graduates, can opt for jobs such as Accountant, Accountant Executive, Chartered Accountant, Company secretary, Cost Accountant, Finance Analyst, Finance Planner, Finance Manager, Finance Controller, Finance Consultant, Investment Analyst ,Stock Broker, Portfolio Manager, Tax Auditor, Tax Consultant, Auditor, Statistician, Economist.

Other than taking care of people's savings, financing projects, and extending loans and credit services, banks have diversified their activities into a range of corporate and personal financial services, and non-banking financial services including housing finance, leasing and hire purchasing, bank deposits, mutual funds, stock markets, venture capital, insurance schemes and portfolio management more or less, all the organizations have financial managers, treasurers, controller, credit manager, and other financial staff who made their financial reports for tax (Philip, K. L. 2010). One of the most promising avenues for commerce students is Insurance. With increased business activity and entry of foreign insurance companies, insurance offers lucrative opportunities for commerce students with appropriate knowledge and training. The employment opportunities in commerce fields are lucrative, both private and public organization is open for commerce graduates. Moreover, with the increasing entry of foreign banks and their aggressive marketing, job opportunities have grown significantly. For nationalized banks, most of the selection is done through the Bank Probationary Officers exams conducted by the respective Nationalized Banks (Doucet, M.S., Doucet, T.A. and Essex, P.A. 1998).

CONCLUSION AND POLICY IMPLICATIONS

Accounting education is the core stream in business and industry. So, all educational institutions must provide specialized accounting education in both under graduation and graduation level. The professional institutions though impart Accounting education but they should follow a uniform course curriculum that will help the professionals to face the changing scenario. The Accounting specialists from different universities should be consulted in order to upgrade the Accounting education in different educational institution prior to commencement of course curriculum so that a uniform course curriculum can be prevailed in accounting education of India. The restructuring of accounting education is a priority as it can be further utilized by the Accounting professionals from the primary level in order to compete in globalized scenario. Some specialized courses should be introduced in accounting education in order to face the emerging challenges of business and industry in this liberalization era. There should be an industry and institution interface in order to upgrade Accounting education in India that help the students of accounting education to be more professional in character which further create employability.

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A STUDY ON WEALTH MANAGEMENT SERVICES - AN EMERGING FINANCIAL SERVICE INDUSTRY IN INDIA

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ABSTRACT

Wealth, just like health, must be carefully preserved. Assets need to be protected against the potential threats of erosion by taxation, the effects of inflation and investment risks. Whatever the level of wealth, there is nothing wrong in making the decision to prepare a risk aversion strategy. Risk aversion is a reasonable and prudent strategy for anyone who is sure that they already have ample to provide for themselves and their family into the future. A systematic plan for protection and management of wealth brings into demand for wealth management services. Also with growing number of affluent population in India, the need for such services cannot be ignored. Wealth management industry in the coming years will boom majorly because of need for more innovative financial products by the HNWIs and the scope for multiple career opportunities in the industry.

Keywords: High Net Worth Individuals (HNWI), asset under management, wealth management.

INTRODUCTION

Emergence of new millionaires and burgeoning pools of shrewdly invested money in growing asset classes demands the need for wealth management services in India. This is making wealth management the most sought-after profession within the financial services sector. Compared to this, investment bankers see compensation fluctuation every year in line with deal income. "The amount of wealth creation is increasing in India, leading to a greater need for people to manage it," said Anshu Kapoor, head, Edelweiss Private Wealth Management. "As wealth is compounding at 12-14% per annum, more clients are seeking options of what to do with it." This indicates the scope of wealth management services in India in the coming years and the need for wealth managers, which implies not only increased services to clients but more career opportunities too in the industry.

OBJECTIVES OF THE STUDY

1. To study the need for wealth management services in India
2. To study the scope/growth of wealth management services in India in the near future.

HYPOTHESIS

H0: Wealth management services has no scope in Indian economy in the near future.

H1: Wealth management services has scope in Indian economy in the near future.

RESEARCH METHODOLOGY

Data is collected through secondary sources such as books, websites and reference research papers. The data is also referred from various newspaper articles which authenticates the study.

SIGNIFICANCE OF THE STUDY

The study will help readers to understand about the emerging financial service in India, i.e. wealth management and its growing importance to high net worth individuals. It also discusses about the rising scope of the wealth management industry in the near future which will not only be beneficial to the service takers (HNWIs) but also motivates individuals to perceive this industry for creation of career opportunities in the finance sector.

WEALTH MANAGEMENT

Wealth management is a high-level professional service that combines financial and investment advice, accounting and tax services, retirement planning, and legal or estate planning for one set fee. Clients work with a single wealth manager who coordinates input from financial experts and can include coordinating advice from the client's own attorney, accountants and insurance agent. Some wealth managers also provide banking services or advice on philanthropic activities.

Wealth management is more than just investment advice, as it can encompass all parts of a person's financial life. The idea is that rather than trying to integrate pieces of advice and various products from a series of professionals, high net worth individuals benefit from a holistic approach in which a single manager coordinates all the services needed to manage their money and plan for their own or their family's current and future needs.

While the use of a wealth manager is based on the theory that he or she can provide services in any aspect of the financial field, some choose to specialize in particular areas. This may be based on the expertise of the wealth manager in question, or the primary focus of the business within which the wealth manager operates.

WEALTH MANAGEMENT SERVICES

Although 8 percent of the total population in India represent 45 percent of the total wealth, only 20 percent wealthy families take advice from wealth managers. However, this number is growing steadily as more and more client seek advice for:

- 1) Asset Management
- 2) Financial Planning (specific short term and long term goals)
- 3) Tax Planning
- 4) Estate Planning

Investment in the following avenues are generally offered by wealth management companies for financial planning of HNWI's:

- **Equity**

The wealth managers and experts proactively research the best stocks in the market and help to take informed decision about investments. They also offer top-of-the-line Portfolio Management Services for optimized results. Extensive research enables the wealth managers to offer breakthrough strategies.

- **Debt**

In the fixed income market, debt investment options of various tenures and risk-reward profiles suitable to client portfolio are offered. They help to choose from debt mutual funds, bonds, fixed deposits etc. that deliver relatively risk-free returns. In addition to this, the debt portfolio management services enable customers to participate in a wide range of high-yielding debt securities that are focused towards regular income and capital appreciation.

- **Alternate Assets**

Some wealth management companies in India offers affluent Indians a wide range of Alternative Investment Funds (AIF). These include non-traditional investments such as venture capital funds and start-up funds, private equity funds (particularly real estate private equity funds), and hedge funds. Under alternate assets, they can also offer Gold Exchange Traded Funds, Commodities Trading, and International Investment for Indian residents.

- **Real Estate**

Investment in real estate helps in assisting clients in finding the right property at the right price. They help invest in the real estate sector through structured transactions that can yield effective returns.

- **Financing Options**

Wealth managers help clients raise finances for their business and other needs. Financing can be in the form of mortgages, loan against property, lease rental discounting, and home loan. Other financing options include promoter funding and loan against shares and securities.

NEED FOR WEALTH MANAGEMENT SERVICES

Client base: High Net Worth Individuals – An indicator for the need of wealth management services in India:

Who are High Net Worth Individuals?

Generally, in the Indian context, individuals with over Rs. 2 crores investible surplus are considered to be HNIs while those with investible wealth in the range of Rs. 25 lacs - Rs. 2 crores are deemed as Emerging HNIs. There is yet another superlative category in the segment known as Ultra high-net worth individuals.

PRESENT SCENARIO OF HNWI'S

The cumulative wealth of India's population may touch US \$ 25 trillion by 2027, predicts Johannesburg based market research firm New World Wealth and Research & Markets. In its new India Wealth Report, the agency says that the growth will make India the fourth largest wealth market in the world, surpassing the UK and Germany. "Total wealth held by all the individuals living in India amounts to \$8.2 trillion (as of Dec 2017) from \$3.2 trillion a decade ago. This includes the wealth of all people living in the country, including middle class, low-income and HNWI's all together. Around \$3.9 trillion (or 48%) of this total is held by HNWI's", the report said. HNWI volumes also increased substantially, from 124,000 HNWI's in 2007 to around 330,000 HNWI's in

2017, it said stating that this made India one of the top performing wealth markets in the world (on both a total wealth growth and HNWI growth basis).

PREFERENCE FOR INVESTMENT AVENUES AMONGST HNWIS – TRADITIONAL AND INNOVATIVE PRODUCTS

In terms of asset allocations, business interests were reported to be the favourite choice for the average HNWI living in India (accounting for around 25% of their assets), followed by cash & bonds (23%), real estate (22%), equities (21%), and alternatives (9%). It was also estimated that at the end of 2017, approximately 19% of Indian HNWI wealth was held offshore, up from 15% in 2007. High net-worth individuals are increasingly opting for more evolved products like alternative investment funds (AIFs), portfolio management services, hedged strategies, private placement, co-investing and higher credit risk exposure products. Customers have become more aware of investment avenues in general and mature investors have also understood the correlation between distribution costs and the degree of complications in normal investment products. Coupled with the emergence of direct mutual fund investments and investment advisory practices, a trend has been seen where mature investors have moved towards low-cost investment or advisory/transaction fee-based investment practices. Wealth management companies are witnessing increased levels of investment in more evolved products like alternative investment funds (AIFs), portfolio management services (PMS), hedged strategies, private placement, co-investing, higher credit risk exposure products etc. among high net-worth individuals (HNIs). This trend will continue creating the need for wealth managers.

The report stated that the reasons for the high wealth growth forecast for India included highly competitive wages when compared to worldwide peers, strong economic growth forecasts, large number of entrepreneurs, good educational system, strong ownership rights and ongoing crackdown on corruption resulting in ease of doing business in country.

WEALTH MANAGEMENT INDUSTRY IN INDIA: SCOPE

Increasing number of High Net Worth Individuals and growth in their wealth

Wealth management industry in India is still in a very nascent stage. The industry is slowly and gradually moving from a one size fits all models to a more customized offering. This is supplemented by technology to take care of the non-core activities. As high as 25.5 percent HNWI population in Asia pacific is using credit to enhance their returns. Hence, there is increased thrust on lending and credit solutions for HNIs. The thrust on customization, technology dependence, need for lending solutions and rising awareness and thrust on financial assets as against physical assets is creating large opportunities for the Wealth Management industry in India. As investors and products evolve over time, the industry can position itself to be able to serve specific needs of clients across situations.

The Indian Wealth Management market is on a sustained path of growth, given India's long-term economic prospects, positive demographics, rising income levels and current low penetration. India is currently ranked among the Top 10 nations in terms of total private wealth held as per Capgemini's World Wealth report. The aggregate wealth held by Indian High Net Worth Individuals (HNI) is expected to grow at a CAGR of 27 percent over next five years to approximately Rs. 400 Trillion. This is huge potential and naturally will attract new entrants to the industry. This also means that there is enough opportunity for each player on the table.

INNOVATION AND TRENDS IN WEALTH MANAGEMENT SERVICES

The client segment serviced by each player and the range of services provided varies significantly. Some are mere distributors while others offer more complex offerings such as estate planning and family office services. Basic offerings like asset allocation and financial planning, tax planning are now hygiene factors. Comprehensive reporting, product due diligence and product pipeline, and family office services are most in demand and these have become the key differentiators.

In the last 6-7 years, emergence of family offices in India has been observed. It brings in a whole new dimension in terms of client servicing, reporting and offering unbiased advice. Family office offering has raised steep entry barriers for new advisors, making the existing client-private bank relationship stronger. It is estimated that this will lead to longer term relationships as the client will ultimately consolidate their wealth within these family offices, who will act as gate keepers. This process involves high level of trust and confidentiality.

Another trend that can be clearly seen is clients' involvement in decision making process, leading to greater understanding of products. New age clients are financially savvy and willing to experiment with new product types. For advisors, it is an opportunity for product innovation. In India, the current generation is well read, educated abroad and has a keener understanding of capital markets. As a result, unlike say 15 years ago, today

most of the clients understand what they are buying into and will often ask us for product simulation or reiterations or will ask for global track record of similar products.

MOTIVATION TO WEALTH MANAGEMENT COMPANIES

“The industry is growing in leaps and bounds with lots of wealth and new money being created through different avenues such as selling of land parcels, unlocking equity or people doing successful business going in for IPOs (initial public offerings),” said Prateek Pant, head, product and solutions, Sanctum Wealth Management. There are about 150,000 families in India with wealth of Rs 25 crore or more each, according to industry estimates. This is expected to rise to 500,000 by 2025. Cumulative wealth will increase to Rs 500 trillion by 2025 from Rs 160 trillion now. However, the amount of wealth being managed by institutional players is less than 25%, leading to robust demand. Families have also witnessed the creation of wealth through capital markets, sparking the need for wealth managers. Many new entrants have been added and older institutions have wrapped up and pared down as savvy customers demand better service and pricing and are not as gullible as in the past,” said Sraboni Haralalka, executive director, Wodehouse Capital Advisors.

Indian wealth managers earn as much or even more than global counterparts, as much as 20-25% of revenue generated against 12-18% internationally, according to Vito data. If a client has held a portfolio for a sustained period of time, revenue predictability is much higher for a private banker due to aspects such as trail revenue and performance-linked advisory fees associated with the investment book. This translates into the greater possibility of incentives or bonuses for the private banker without incremental effort on the investment book built. A wealth manager’s compensation consists of trail, advisory revenue and commission. Trail revenue is an annuity income which a private banking outfit earns from the cumulative mutual fund portfolio of its clients which is held for more than a year. (It is generally 0.4-0.6% of the total mutual fund holding.)

CAREER SCOPE IN WEALTH MANAGEMENT INDUSTRY

“In the past 24 months, the industry has seen a massive surge in demand for professionals at the middle to senior level,” said Naveen Tiwari, head, private banking practice, Vito. In the past six months, Vito has been retained for five CEO searches for existing and new wealth outfits. It has seen emergence of newer domestic wealth outfits including some global entrants and some of the existing large wealth firms going public. Demand of talent has grown exponentially,” Tiwari said. Wealth managers like Kapoor believe the opportunity for growth is significantly bigger from a longer-term career perspective in wealth management than in investment banking, with its larger market size and revenue pool. Plus, compensation is more attractive due to the dearth of quality talent. The increasing demand for wealth managers is also because many outfits are looking to penetrate newer territories by opening offices in tier two cities. Due to scarcity and out-pricing of talent, various wealth outfits are willing to look at personnel from alternate pools such as asset management, corporate banking and treasury businesses.

GROWTH ESTIMATE

The wealth management industry is expected to grow at 10-15 per cent over the next five years.

PROMINENT WEALTH MANAGEMENT COMPANIES IN INDIA

Rank	Wealth Management Companies	YOY% change	2017 AUM (USD billion)	2016 AUM (USD billion)
1	Kotak Wealth Management	93.5%	29.6	15.3
2	IIFL Wealth & Asset Management	19.6%	17.7	14.8
3	Edelweiss Wealth Management	79.7%	13.3	7.4
4	Axis Bank Wealth Management	54.9%	12.7	8.2
5	BNP Paribas Wealth Management	69.9%	12.4	7.3

The above table clearly indicates the trend in the wealth management industry in India. Increasing AUM (Asset under Management) justifies the hypothesis of the study that wealth management services have better scope in India in the coming years.

FINDINGS

- The volume of High Net Worth Individuals (HNWIs) in India is witnessing an increasing trend, which demands their wealth to be managed appropriately by use of various traditional as well as innovative products with more focus for innovative products. For effective management of wealth, it is indispensable to use wealth management services.

- As an industry, it is able to maximise profits because of demand in wealth management services and due to the client attitude of retainment of investments for longer duration.
- It is not only the profitability or growing HNWIs that the industry can be perceived as a sunrise sector, it is also the career prospect which increases the possibility of this industry to boom in the near future. Amongst various financial professional services offered by CA and CS, delivering wealth management services are yet another opportunity.

CONCLUSION

The findings of the study help in understanding the need of wealth management services to the affluent class. The current HNWIs are interested to professionally manage their wealth as against the traditional HNWIs. This drives the fact of the increasing scope of wealth management services in the near future in India. Apart from the need driving towards the growth of the industry, the career prospects being a reason for its rising scope cannot be ignored. The findings lead to the rejection of null hypothesis (H₀) “Wealth management services has no scope in Indian economy in the near future” and acceptance of the alternate hypothesis (H₁) “Wealth management services has scope in Indian economy in the near future”.

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A STUDY ON INVESTMENT PATTERN FACULTIES IN MUMBAI WITH SPECIAL REFERENCE TO THEIR GENDER

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ABSTRACT

Every individual investor possesses different mind-set when they decide about investing in a particular investment avenue such as stocks, bonds, mutual funds, fixed deposit, real estate, bullion etc. In each life cycle stage, every individual desires his hard earned money to be invested in most secure and liquid avenue. However, the decision varies for every individual depending on their risk taking ability and the purpose for which such investment is to be done. Purpose of investment can be related with saving objective. Each individual investor selects the investment option for certain time period looking at their personal financial goals. Investment behaviour of an individual investor reveals how he/she wants to allocate the surplus financial resources to various instruments for investment available. The investment behaviour consists of why they want to invest, how much of their disposable income they want to invest, for how many years/months they want to invest and most importantly the timing of such investment. In various empirical studies, it has been found that information being an important factor on taking decision to invest, which influences them on choice of investment and later on how they act after investment. This study mainly focuses on the investment pattern of unaided degree college teachers in Mumbai with special reference to Gender and its impact on Financial goals and Nature of investors. It is mainly conducted mainly to know about the individual investor's perception towards the deciding on the objective and attitude of investors and its association with male and female. The result shows that there is an association between gender and financial goals where as there is no association between gender and nature of investors.

INTRODUCTION

Investment is a common word used by all of us in our everyday life. The Code of Hammurabi (around 1700 BC) provided a legal framework for investment, establishing a means for the pledge of collateral by codifying debtor and creditor rights in regard to be pledged land. Here punishments for breaking financial obligations were not as severe as those for crimes involving injury or death.

In the early 1900s purchasers of stocks, bonds, and other securities were described in media, academia, and commerce as speculators and slowly their demand started increasing. By the 1950s, the term investment had come to denote the more conservative end of the securities spectrum, while speculation was applied by financial brokers and their advertising agencies to higher risk securities much in vogue at that time. Since the last half of the 20th century, the terms speculation and speculator have specifically referred to higher risk ventures.

An asset or item that is purchased with the hope that it will generate income or appreciate in the future. In an economic sense, an investment is the purchase of goods that are not consumed today but are used in the future to create wealth. In finance, an investment is a monetary asset purchased with the idea that the asset will provide income in the future or appreciate and be sold at a higher price.

Nowadays in the market, there is a wide range of products for consumers to choose from. It is important that you take time and understand to choose something that is suitable for you based on your need. It is necessary to look at our goals and investment objective, what investments you already have, what you can afford, and your risk profile.

SCOPE OF THE STUDY

Investment is one of the very important concern of every individual investor as their small savings of today are to meet the expenses of tomorrow. Taking 425 respondents in the survey from the City of Mumbai (India), as there are various Mumbai is one of the metropolitan city which comprises of people from various other cities who have migrated and settled in Mumbai for their living. The paper attempts to analyse the investment pattern, saving objective and preferences of individual investor's with special reference to Gender.

The study is conducted to find out whether objective to saving of respondents and their nature of investment is significantly influenced by Gender. The study exhibits the saving habit of Unaided Degree College Teachers in Mumbai across the different income levels. The Study attempts to explore whether dichotomy of the popular believes that men are more pro-risk than women. From the research point of view, such a study will help in developing and expanding knowledge in this field of personal finance and investment.

RESEARCH METHODOLOGY

OBJECTIVES OF THE STUDY

In the background of the discussion made above, the aims and objectives of the present thesis may be summarized as under

1. To understand the saving and investment pattern of Unaided degree college teachers in Mumbai.
2. To study the impact of gender on their financial goals.
3. To study the impact of gender on the nature of investors.

HYPOTHESIS

H_{01A} : There is no association between Gender and nature of investor according to Financial Goals.

H_{01B} : There is no association between Gender and nature of investor according to Attitude.

RESEARCH DESIGN

An exploratory research has been undertaken, by conducting a cross sectional data analysis. This is done to describe various aspects of Unaided Degree College Teachers in Mumbai University perception, investment habits and demographic profiles which play a significant role during purchase of investment products according to the investor's risk profile. For this purpose, primary data has been collected through structured questionnaire from Respondents (Teachers) from various Colleges which are affiliated to Mumbai University. In order to serve the purpose of research, the questionnaire was framed USING Close ended questions, as it contains more of personal information about the investments of respondents.

The Study is confined to the city of Mumbai. For the purpose of research to study the investment pattern of Unaided Degree College Teachers in Mumbai, the Sample size selected is 425 Teachers from Colleges in the overall City of Mumbai (India). All the Colleges which are affiliated to Mumbai University come under the Total Population of research. Out of the total The Total Population 25 Colleges were selected for the purpose of study using Simple random Sampling. The respondent category is only focused to Unaided Degree College teachers, taking into consideration the job security and earnings this category of respondents are selected. 425 teachers were selected from 25 colleges' affiliated to Mumbai University using Convenience Sampling Method.

The secondary data has been gathered through a comprehensive survey of the research works carried out at academic and official levels. Various research projects brought out by academicians. Secondary data is also collected from various Journals, Books, Research Papers, Theses, Internet, is used to identify the gap in proposed research work and its significance for further study.

The study is empirical in nature. The scope of the study extends to the City of Mumbai (India). Various statistical tools like mean, standard deviation, chi-square, ANOVA, factor analysis were applied.

Explanation of techniques and equations used

1. Chi-Square Test: The Chi-square test is used in this paper with discrete data in the form of frequencies. It is used to check the independence/dependence of demographic profile such as age, gender, stream and income on saving objectives. Test of homogeneity has been applied using chi-square to find out the preferences of male and female to Financial goals and nature of investment parametres undertaken for the purpose of the study.
2. Two-way analysis of variance (ANOVA): ANOVA is a technique to study the cause-and-effect of one or more factors on a single dependent variable. Two-way ANOVA has been used to find whether there is any significant difference between responses of various respondents.

The hypothesis framed were put to test using f-test using the above tools for analysis an inferential analysis using expert view has been made. Necessary suggestions have been made to the investors on various avenues of investments and its long term returns.

TESTING OF HYPOTHESIS

Null Hypothesis H_{01A} : There is no association between Gender and nature of investor according to Financial Goals.

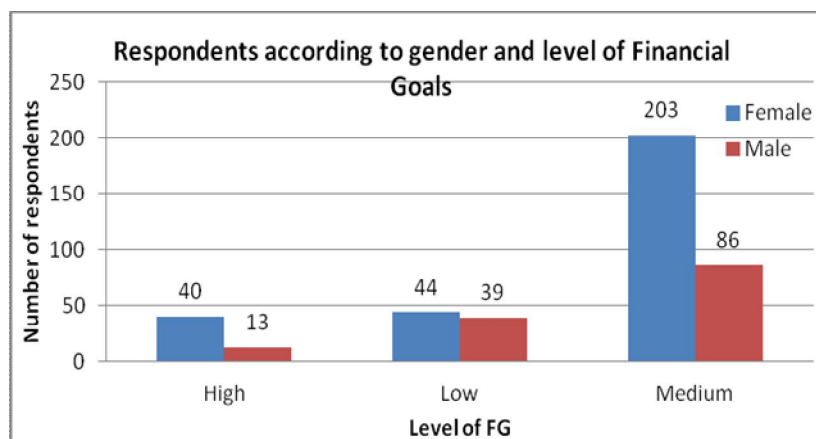
Alternate Hypothesis H_{11A} : There is association between Gender and nature of investor according to Financial Goals.

To test the above hypothesis bivariate frequency table of Gender and level of financial goals is obtained and presented in the following table.

Gender	Level_of_Financial_Goals			Total
	High	Low	Medium	
Female	40	44	203	287
Male	13	39	86	138
Total	53	83	289	425

Above table indicate that out of 425 respondents 287 are females and remaining 138 are males. Out of 287 female respondents 40 belongs to high level of Financial Goals, 44 belongs to low level of Financial Goals and remaining 203 belongs to medium level of Financial Goals. Out of 138 male respondents 13 belongs to high level of Financial Goals, 39 belong to low level of Financial Goals and remaining 86 to medium level of Financial Goals.

Above information is presented using bar diagram as shown below.



To test null hypothesis Chi-square test is applied and results are as follows.

Chi-Square Tests				
	Value	Degree of freedom	p-value	Result
Pearson Chi-Square	10.472 ^a	2	.005	Rejected

Above results indicate that p-value is 0.005 which is less than standard value 0.05. Therefore test is rejected. Hence Null Hypothesis is rejected and Alternate Hypothesis is accepted. Conclusion of test is there is association between Gender and nature of investor according to Financial Goals.

For detail analysis ANOVA is obtained and F-test is applied. Results are presented on the following table.

ANOVA						
Score_of_FG	Sum of Squares	Degree of freedom	Mean Square	F-cal	p-value	Result
Between Groups	2295.794	1	2295.794	12.355	.0004	Rejected
Within Groups	78600.778	423	185.817			
Total	80896.572	424				

Above results indicate that p-value is 0.0004 which is less than standard value 0.05. Therefore F-test is rejected. Conclusion is there is significant difference in mean scores of Financial Goals of Male and Female respondents. To understand findings of hypothesis mean scores of Financial Goals are obtained and presented in the following table.

Report		
Score_of_FG		
Gender	N	Mean
Female	287	50.7881
Male	138	45.8247
Total	425	49.1765

Findings of Hypothesis: Mean scores of FG of female respondents is 50.7881 which is higher than score of male respondents 45.8247.

Null Hypothesis H_{0IB} : There is no association between Gender and nature of investor according to Attitude.

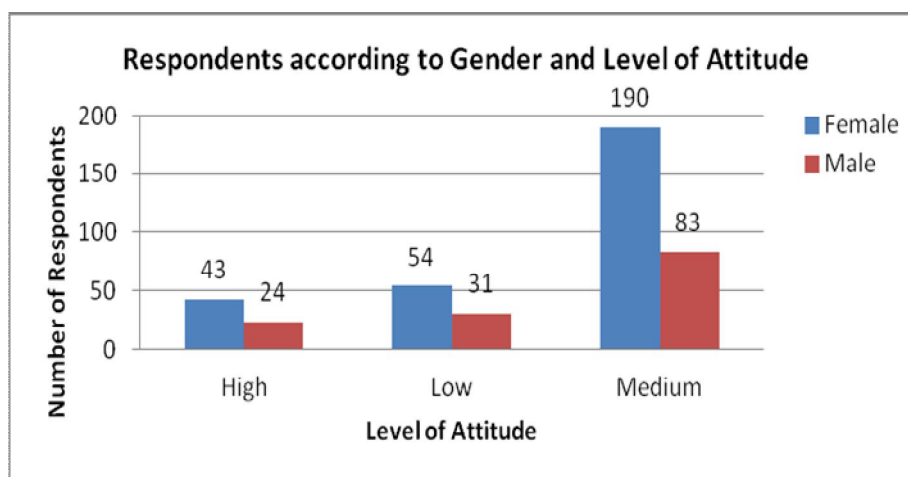
Alternate Hypothesis H_{1IB} : There is association between Gender and nature of investor according to Attitude.

To test the above hypothesis bivariate frequency table of Gender and level of Attitude is obtained and presented in the following table.

Gender	Level_of_Attitude			Total
	High risk	Low risk	Medium risk	
Female	43	54	190	287
Male	24	31	83	138
Total	67	85	273	425

Above table indicate that out of 425 respondents 287 are females and remaining 138 are males. Out of 287 female respondents 43 belongs to high risk level of Attitude , 54 belongs to low risk level of Attitude and remaining 190 belongs to medium risk level of Attitude. Out of 138 male respondents 24 belongs to high risk level of Attitude, 31 belong to low risk level of Attitude and remaining 83 to medium risk level of Attitude.

Above information is presented using bar diagram shown below.



To test null hypothesis Chi-square test is applied and results are as follows.				
Chi-Square Tests				
	Value	Degree of Freedom	p-value	Results
Pearson Chi-Square	1.495 ^a	2	.473	Accepted

Above results indicate that p-value is 0.473 which is more than standard value 0.05. Therefore test is Accepted. Hence Null hypothesis is Accepted. Conclusion of test is there is no association between Gender and nature of investor according to Attitude.

To understand findings of hypothesis mean scores of Attitude of investors are obtained and presented in the following table.

Report

Score_of_Attitude_		
Gender	N	Mean
Female	287	48.0643
Male	138	50.8052
Total	425	48.9542

FINDINGS of Hypothesis: Mean scores of Attitude of female respondents is 48.0643 and that of male respondents 48.9542. There is no significant difference in the mean scores of Attitude with relation to Gender.

CONCLUSION

There is association between Gender and nature of investor according to Financial Goals. The overall study shows that the female are having high level of financial goals as compared to that of Male. This may be due to the responsibility attitude of females as compared to males.

There is no association between Gender and nature of investor according to Attitude. The study shows that there is no association between the nature of investors of male and female and both are uniform. The attitude of male and female towards risk is same and there is no association .

SUGGESTIONS

1. It is recommended that the Government should take some efforts to increase the financial awareness & investment awareness among the working teachers organizing campaigns for the same.
2. Investors should have a portfolio manager who will be able to guide and suggest the best portfolio and to manage their goals and preferences as per their annual income.

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STUDY ON CUSTOMER SATISFACTION LEVEL TOWARDS BANKING PRODUCTS AND SERVICES OFFERED BY BANKS

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ABSTRACT

Now a days banking has changed because banking services are no more based on Brick and mortar structure. Due to Continues growth of technology, increasing customer base, evolution of alternate banking channels, has changed the way of banking services, so hence the customer satisfaction. Banking is a customer oriented service industry and customer satisfaction has become the most important aspect of any banking business due to immense competition. Banks are more determined to retain their existing customers by providing quality services leading to Customer satisfaction. The concepts and determinants of customer satisfaction has changed significantly as transition has taken place from traditional to modern banking. This could be witnessed by exploring the literature regarding customer satisfaction in banking industry. This paper is based on extensive literature review and attempts to investigate how the concepts and determinants of customer satisfaction has changed significantly during the transition from traditional to modern banking. The findings of the study will provide an important insight into the past trends of customer satisfaction and will provide a base for the bank managers to devise customer satisfaction strategies in near future. Keywords: Customer satisfaction; Traditional and Modern banking

1. INTRODUCTION

Importance of banks can be easily understood with the above words of **Stephenson and Britain**. Banking system plays an important role in growth of any country's economy. The banking sector is the lifeline of all modern economies. It is one of the important pillars of financial system, which plays a vital role in the success or failure of an economy. It is a well-known fact that banks are one of the oldest financial intermediaries in the financial system. They play a crucial role in the mobilization of deposits from the disbursement of credit to various sectors of the economy. The strength of the economy of any country basically hinges on the strength and efficiency of its financial system, which in turn depends on a sound and solvent banking system.

In a developing country like India, there are many factors that delay the development of the country. Some of them can be endorsed to the low per capita income and large group of people living below the poverty line. India is an agrarian economy where the country's potential, neither the human resource nor the natural resources are adequately utilised to the maximum extent which results in low per capita income. Thus the economy is overly indulged with unemployment and underemployment. Since the economy is basically agrarian, disguised unemployment is also problem among the farmer community. Besides the reasons mentioned above, the financial market was in the presence of private moneylenders, landlords, etc. They acted as bankers for centuries and collect major wealth from the people of India that adversely affected capital formation. Thus the need for a better financial institution and credit infrastructure was felt necessary by the Planning Commission when the Five Year Plans were initiated. Banks play an important role in the development of a country, because in a modern economy, banks are to be considered not merely as dealers in money but also the traders in development. The banks are not only the stockholders of the country's wealth but also are there savours of resources necessary for the economic development. Thus, the importance of commercial banks in the process of economic development has been pointed out regularly by economic thinkers and policy makers of the country. Commercial banks played an important role in the Indian economy and considered as the heart of the financial structure.

The success of economic development depends on the extent of mobilization of resources and investment, the operational efficiency and economic discipline displayed by various segments of the economy. From the economic point of view, the major task of banks and other financial institutions is to act, as intermediaries channeling savings to investment and consumption. Through them, the investment requirements of savers are reconciled with the credit needs of investors and consumers.

2. OBJECTIVES OF THE STUDY

1. To understand relationship between customer satisfaction and customer loyalty.
 2. To study the effectiveness of marketing efforts of banks under study by analyzing customer's knowledge and awareness about bank's products/services.
 3. To study the overall satisfaction level of customers towards banks.
-

3. REVIEW OF LITERATURE

A good literature review is characterized by a logical flow of ideas current and relevant references with consistent, appropriate referencing style; proper use of terminology; and an unbiased and comprehensive view of the previous research on the topic. It helps with all types of assignments as well.

Kotler (2000) wrote that service providers must do their best to identify the expectations to their target customers with respect to each specific service. They were required to formulate their market oriented plans and programs.

Diane Brandy (2002) has given his examination under the title “Why Service Stinks”. Due to wide and increasingly unusual customer service, the service gap between top customers and all the rest would be affected. This is because of essential new business models created by advanced technology which extends to alter the whole dynamics of customer service. No doubt banks do the best to enhance their reputation by means of personal touch. They provide plenty choices and options to cater to the needs of the customers and community.

Patnaik (2004) in his research highlighted the significance of ATM (modern service) and saw that ATM turn into an essential tools of comfort as the majority of the general population have changed the short form to any time cash.

Vyas P. (2004) had expressed in his study that data innovation is extraordinary empowering agent that would help banks to increase customer satisfaction and customer loyalty. Quality client services would be directed by velocity, precision, cost, adequacy or more all refined use of IT among banks in India.

4. DATA ANALYSIS:

Age is a prime factor which decides attitude and satisfaction level of a customer.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	< 30 years	297	33.0	33.0	33.0
	30-39 years	308	34.2	34.2	67.2
	40-49 years	195	21.7	21.7	88.9
	50 years & Above	100	11.1	11.1	100.0
	Total	900	100.0	100.0	

On the basis of above table and chart, we have analyzed that 34.2% of 900 respondents are in the age group 30-39 years and 33% of 900 respondents have given more responses as compared to age group 50 years & Above (11.1% of 900). Major respondent falls in the age < 40 years i.e.67% approx. It is inferred that banks should provide more attention to age group less than 40 years for their services and products.

Gender of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	631	70.1	70.1	70.1
	Female	269	29.9	29.9	100.0
	Total	900	100.0	100.0	

By observing the above table and chart, gender wise respondents are male (70.1%) and female (29.9%) of total samples. It shows that male prefers banking service/products more than female respondents in Bhiwandi region.

Occupation of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Professional	114	12.7	12.7	12.7
	Business	159	17.7	17.7	30.3
	Salaried	532	59.1	59.1	89.4
	Retired	95	10.6	10.6	100.0
	Total	900	100.0	100.0	

It is observed from the above table and charts that 59.1% of 900 respondents as salaried customers who gives more importance to banking services or product oftenly as compared to other customers like Professional (12.7%), Business (17.7%) and Retired (10.6%)

Qualification of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High school	211	23.4	23.4	23.4
	Graduate	346	38.4	38.4	61.9
	Post Graduate	213	23.7	23.7	85.6
	Professional Degree	130	14.4	14.4	100.0
	Total	900	100.0	100.0	

It is clearly examined from the above table and chart that 38.4% of 900 respondents having qualification "Graduate" are more habitual of banking services/products than respondents having qualification like High-school (23.4%), Postgraduate (23.7%) and Professional (14.4%) among total samples.

Annual Income of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Below Rs.1,00,000	159	17.7	17.7	17.7
	Rs. 1,00,000-5,00,000	311	34.6	34.6	52.2
	Rs. 5,00,000-10,00,000	314	34.9	34.9	87.1
	Above Rs. 10,00,000	116	12.9	12.9	100.0
	Total	900	100.0	100.0	

It is analyzed on the basis of above table and chart that 34.9% and 34.6% of 900 respondents having income group Rs. 5,00,000-10,00,000 and Rs. 1,00,000-5,00,000 are giving more preference for their banking transactions and other services of banks like internet banking, ATM facility etc., than the income group Below Rs. 1 lakh and Above Rs. 10 lakh among 900 respondents.

Name of Bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bank of Maharashtra	114	12.7	12.7	12.7
	State Bank of India	134	14.9	14.9	27.6
	Central Bank of India	49	5.4	5.4	33.0
	Bank of India	63	7.0	7.0	40.0
	ICICI	147	16.3	16.3	56.3
	AXIS Bank	34	3.8	3.8	60.1
	HDFC Bank	78	8.7	8.7	68.8
	Karur Vysya Bank	17	1.9	1.9	70.7
	The Bharat Co-operative Bank (Mumbai) Limited	43	4.8	4.8	75.5
	Bombay Mercantile co-operative Bank	35	3.9	3.9	79.4
	Thane District Co-operative Bank	85	9.4	9.4	88.8
	Thane Janata Sahakari Bank	101	11.2	11.2	100.0
	Total	900	100.0	100.0	

It is observed from the above table and charts that how does number of customers of different banks give importance to their banks. (Name of banks and types of banks are shown in questionnaire). 40% of 900 respondents belong to public sector banks, 30.7% of 900 respondents to private sector banks and rest of respondents are from co-operative banks. It is concluded that major responses are obtained from public sector banks i.e. Bank of Maharashtra and SBI.

Types of bank

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public Sector Banks	360	40.0	40.0	40.0
	Private Sector banks	276	30.7	30.7	70.7
	Co-operative banks	264	29.3	29.3	100.0
	Total	900	100.0	100.0	

It is reported on the basis of above table and graph that 40% customers are having their accounts in Public Sector Banks, 30.7% customers have their accounts in Private Sector Banks and 29.3% customers have their accounts in Co-operative Banks. It shows that major customers belong to Private Sector Banks than other banks in the Bhiwandi region.

5. CONCLUSION

The saving money area has under gone numerous progressions in the light of privatization, globalization and liberalization. Customer is the ruler in the present day banking. Currently every bank is offering their best services to satisfy their customers due to the cut throat competition existing in present banking industry. Today the taste and preferences of customers are changing rapidly due to which it's becoming a challenging and tough job for the bankers to satisfy the existing customer and to win a new customers. To achieve the highly challenging task of customers satisfaction bankers are now taking the help of modern technologies. Today, bankers are not only satisfying the customer but they are also trying to change the attitude of the customers towards banking industry. To develop the social banking environment, bank officials should maintain good relationship with the customers. Some light was shed on some negative factors also like creating an awareness on online transactions, interest rates on loans, A.T.M. facilities etc., That's why Some suggestion were provided to the management like concentrating on Online services, solving banking problem with a quick time and promote loan facilities like industrial, business, agriculture, individual loans etc, with an attracting advertisements. Modern technology and innovation are required in every aspect of banking system. As majority of private banks doing aggressive marketing they have succeeded in attracting more customers, but PSU and Co-operative banks are lacking in these skills so different ways to attract customers must be done like advertisement, workshops, and sales promotion activities. For the effective banking transaction the banks should adopt good communication and soft skill. At every level of delaying, the banks management should provide adequate training to employees so that they can deal with the customer effectively. Finally, if they want to sustain customers on a long term basis, bankers should work towards 100% customer satisfaction that automatically fosters customer delight.

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ARTIFICIAL INTELLIGENCE & IT'S APPLICATIONS

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ABSTRACT

In coming years, intelligent machines will replace human capabilities in many areas. Artificial intelligence exhibited by machine or software. Artificial intelligence is becoming a popular field in computer science as it has enhanced the human life in many areas. Artificial intelligence in the last two decades has greatly improved performance of the manufacturing and service systems. Study in the area of artificial intelligence has given rise to the rapidly growing technology known as expert system. Application areas of Artificial Intelligence is having a huge impact on various fields of life as expert system is widely used these days to solve the complex problems in various areas as science, engineering, business medicine, weather forecasting. The areas employing the technology of Artificial Intelligence have seen an increase in the quality and efficiency.

Keywords: Artificial Intelligence, Intrusion Detection Systems, Neural Networks

INTRODUCTION

It is claimed that artificial intelligence is playing an increasing role in the research of management science and operational research areas. Intelligence is commonly considered as the ability to collect knowledge and reason about knowledge to solve complex problems. In the Future intelligent machines will replace human capabilities in many areas. Artificial intelligent is the study and developments of intelligent machines and software that can reason, learn, gather knowledge, communicate manipulate and perceive he objects. John McCarthy coined the term in 1956 as branch of computer science concerned with making computers behave like humans. It is the study of the computation that makes it possible to perceive reason and act. Artificial Intelligence is different from psychology because it emphasis on perception, reasoning and action. It makes machines smarter and more useful. It works with the help of artificial neurons(artificial neural network) and scientific theorems (if then statements and logics).AI technologies have matured to the point in offering real practical benefits in many of their applications. Major Artificial Intelligence areas are Expert Systems, Natural Language Processing, Speech Understanding, Robotics and Sensory Systems, Computer Vision and Scène, Recognition, Intelligent Computer-Aided Instruction, Neutral Computing. From these Expert System is rapidly growing technology which is having a huge impact on various fields of life. The various techniques applied in artificial intelligence are Neural Network, Fuzzy Logic, Evolutionary Computing, and Hybrid Artificial Intelligence.

Artificial intelligence has the advantage over the natural intelligence as it is more permanent, consistent, less expensive, has the ease of duplication and dissemination, can be documented and can perform certain tasks much faster and better than the human

The Turing Test Approach: The Turing test was proposed Alan Turing (1950). This test was designed to test that whether a particular machine can think or not. The test involves a human interrogator who interacts with a human and with a machine and has to tell who is human and which one is machine. The computer passes the test if and interrogator after posing some written response is coming from human or from the machine.

WHAT IS ARTIFICIAL INTELLIGENCE?

“An AI is a computer system that is able to perform tasks that ordinarily require human intelligence. These artificial intelligence systems are powered by machine learning. Many of them are powered by machine learning, some of them are powered by specifically deep learning, and some of them are powered by very boring things like just rules.”

Artificial intelligence (AI) makes it possible for machines to learn from experience, adjust to new inputs and perform human-like tasks. Most AI examples that you hear about today – from chess-playing computers to self-driving cars – rely heavily on deep learning and natural language processing. Using these technologies, computers can be trained to accomplish specific tasks by processing large amounts of data and recognizing patterns in the data.

FEATURES OF ARTIFICIAL INTELLIGENCE**1. Reasoning and decision making**

Artificial Intelligence machines have the ability of reasoning and decision making. Artificial Intelligent machines can take inputs, process them and gives the outputs. These machines do not require human supervision for their operations. Artificial Intelligence machines can also help in making decisions. They reduce the risk factor in taking the decisions.

2. No emotions

Artificial Intelligent machines are emotionless. They do not get tired, feel anything or do not get bored. Therefore, they can successfully replace humans in recursive tasks that humans find boring. As they do not get tired, so they do not need frequent breaks also. The decision made by artificially intelligent machines are not affected by their emotions. They are solely dependent upon the data analysis.

3. Preventing Hazards

Artificial Intelligent machines help in preventing the hazards. They are programmed to detect the problem at an early stage. They perform several tests on the systems and informing about potential risks and problems in various systems. For example, any security breach in bank security system is detected by Artificial Intelligence system. That leads to alarming the concerned authorities before serious mishappening.

4. Learning Ability

Artificial Intelligence machines are designed such that they can learn from their past experiences. As AI machines are exposed to more and more real-life data, their data set gets bigger and better. So, AI machines get more familiar with the real-time environment. This leads to improve the accuracy and decision making ability with time.

5. Communication Ability

Artificial Intelligence systems have the ability to communicate with humans as well as other artificial intelligence machines. They can communicate in various languages and can translate from one language to another. A chatbot is an example of communication ability of the AI machines.

6. Final Take

Artificial Intelligence is helping human race and doing great things and achieving bigger targets. Nowadays, AI has become an integral part of everyday lives. It has become a boon to many industries like healthcare, finance, marketing etc. So, it becomes necessary for various industries to keep pace with the latest trends in Artificial Intelligence to maximize benefits from it. We at Research Infinite Solutions - Data Science consulting company are helping industries to solve real-life problems and building smart solutions in the field of Artificial Intelligence.

ADVANTAGES OF ARTIFICIAL INTELLIGENCE OF A

Efficiency: Artificial Intelligence machines have a high level of efficiency. As we all know that machines are built with algorithms that enable **AI machines** to become less prone to error.

Repetitive jobs: Artificial Intelligence machines can replace humans from monotonous jobs that humans find boring. This is because machines are emotionless and do not get bored.

No breaks: Artificial Intelligence Machines takes less or no breaks as compared to human counterpart.

External Factors: These machines can perform in any environment or place where humans cannot reach. For example inside petroleum pipes to check leakage. They can work at any temperate range as high as 1290 degrees to as low as – 47-degree Celsius.

Adaptability: Artificial intelligent machines have the ability to adapt to any environment. Artificial Intelligence can be classified into two types. Narrow AI and Broad AI. Broad AI can perform a vast variety of task on the basis of an environment.

Artificial Intelligence is helping in making smarter machines, smart TV, smart homes and many more.

DISADVANTAGES OF ARTIFICIAL INTELLIGENCE

High Cost: Artificial Intelligence machines require a huge amount of investments as they are very complex to design. It involves years of research and experimentation to build the artificial intelligence machines. Moreover, repair and maintenance of **AI machines** are very costly. Frequent software updates are needed so as to adapt to new requirements and environment.

No creativity: Artificial Intelligent machines lack creativity. They can help you design and create things that they are programmed to. Other than that they cannot replicate the original thinking power of human mind.

Unemployment: Artificial Intelligence will replace humans in the majority of the tasks. This will lead to unemployment, which is an undesirable social phenomenon. Unemployment can lead to serious issues. Becoming dependent on AI Machines can make humans lazy.

Distribution of power: Artificial Intelligence machines can take the control away from humans. They can become a potential threat to the human race. Many technology scholars have shown their concern in the advancement of Artificial Intelligence technology.

APPLICATION OF ARTIFICIAL INTELLIGENCE

1. Artificial Intelligence in Logistics and Supply Chain:



When combined with customer data and analytics, physical artificial intelligence removes friction from the customer experience. Artificial intelligence empowers businesses to act on consumer data to drive improvements throughout many areas of supply chain operations. Mobile technology and the “Uberization” of things have made consumers hungry for AI.

Consumers demand shorter delivery waits from retailers and retailers will expect the same from manufacturers and distribution centres. Autonomous trucks and robotic picking systems allow supply chains to make fulfilment seven days a week. Within the next five years, the shipping term “business days” will become obsolete as consumers expect delivery on nights and weekends.

AI in Healthcare



In the year ahead, and particularly in the next five to ten years, artificial intelligence is going to have a big impact on the healthcare industry and the ways in which healthcare related companies utilize AI. Here is a short note from Dr. Jeff Dunn, CEO of Redivus Health. Redivus Health is a transformative mobile app used by healthcare providers to prevent medical errors by offering both clinical decision supports during critical medical events as well as documenting those events electronically in real time.

AI presents opportunities for our application to take the data we have gathered from patients and be able to clinically innovate to improve patient outcomes to an even greater extent. AI improves reliability, predictability, and consistency with quality and patient safety. For us, AI, as applied to software, is used as a decision augmentation tool, but it should not have free reign without human interaction and guidance. While it can't replace doctors and nurses, it can make them more effective, efficient and happier on the job as it takes the cognitive burden off our providers – which increases confidence as well as reduces stress and anxiety.

2. Artificial Intelligence in e-Commerce

Artificial Intelligence technology provides a competitive edge to e-commerce businesses and is becoming readily available to companies of any size or budget. Leveraging machine learning, AI software automatically tags, organizes and visually searches content by labelling features of the image or video.

AI is enabling shoppers to discover associated products whether it is size, colour, shape, or even brand. The visual capabilities AI is improving every year. By first obtaining visual cues from the uploaded imagery, the software can successfully assist the customer in finding the product they desire. Many e-commerce retailers are already becoming more sophisticated with their AI capabilities, and I only expect this to grow in the future.

3. ChatBots



Artificial intelligence continues to be a hot topic in the technology space as well as increasing its inception into other realms such as healthcare, business, and gaming. AI-powered chatbots in enterprises will also see an influx of people get more comfortable with how AI can actually benefit businesses versus, say, take away their jobs. From an analytical standpoint, AI can be incorporated into interfaces to change how they receive and understand data.

Chatbots, in particular, are always on, delivering smart and flexible analytics through conversations on mobile devices using standard messaging tools and voice-activated interfaces. This dramatically reduces the time to collect data for all business users, thereby accelerating the pace of business and streamlines the way analysts use their time, preparing companies for the growing data needs of the near future.

CONCLUSION

The field of artificial intelligence gives the ability to the machines to think analytically, using concepts. Tremendous contribution to the various areas has been made by the Artificial Intelligence techniques from the last 2 decades. Artificial Intelligence will continue to play an increasingly important role in the various fields. We conclude that further research in this area can be done as there are very promising and profitable results that are obtainable from such techniques. While scientists have not yet realized the full potential and ability of artificial intelligence.

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BUSINESS INTELLIGENCE AND IT TOOLS

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ABSTRACT

BI is now a day Buzzword in IT. The research objective for this study is to investigate different information technology tools for Business Intelligence development. The study was based mainly on a critical analysis of literature, creative thinking and an interpretive philosophy. The results of this research can be used by It and business leaders as they plan and develop BI applications in their organizations.

Keywords: Business Intelligence, IT Tools.

INTRODUCTION

What is Business Intelligence:-

Business Intelligence can be defined as a set of a mathematical tools & analyse tools the exploits the available data to retrieve information and knowledge useful in supporting complex decisions making process. BI 3.0 present a new era in the evolution of BI. Thanks to web and mobile devices (iPad, iPhone, MI and other sensor based internet-enabled device equipped with RFID, barcodes, radio tags.) it was possible to create innovative applications.

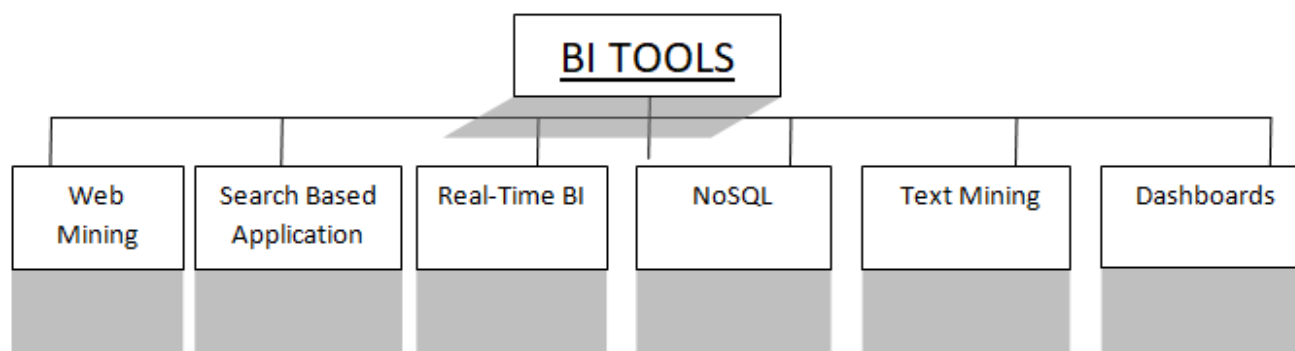
CHARACTERISTICS OF BUSINESS INTELLIGENCE

- ❖ **Solution's virtue :-** Volumetry, Monitoring performance of KPIs.
- ❖ **Data Types :-** Structured data in spread sheets, relational and dimensional database, etc.
- ❖ **Analysis style :-** It reflects only the past data in small or large scale. There is no intelligence in the system and requires only management professionals to interpret the information for decision making.
- ❖ **Expected results :-** Dashboards with consolidated views of KPI's in graphics and charts.
- ❖ **Focus :-** Monitor indicators such as price, value, temperature, total costs, etc.
- ❖ **Commercialization :-** Deployment costs, system integration and monthly payment per user.
- ❖ **Data Volume :-** Large databases, but limited to the processing of relational/dimensional databases.

BENEFITS OF BI

- ❖ Faster reporting, analysis or planning
- ❖ More accurate reporting, analysis or planning.
- ❖ Better business decisions
- ❖ Improved customer satisfaction
- ❖ Improved operational efficiency
- ❖ Increased competitive advantage





❖ Web Mining

Web mining are the methods and tools to process and analyze unstructured web contents based on XML, Internet protocols (HTTP, SMTP) or application programming interface , cloud computing, opinion mining. The web mining has strengths that is integrating diverse content from different web-enabled systems and the weakness is the complex implementation of the web mining techniques major of the component of software & hardware delivered as service over the internet (Veber, 2012; Raid and Hassen,2008).

❖ Search Based Application

These applications enable users to find information from any source and in any format with a search based applications .The user can the enter anything he knows about the customer or product, and search engine will try to find those customers or products that resemble the keywords entered by the user Amazon (Amazon 2013)

❖ Real -Time BI

Real-time BI system deliver information about business operations with minimum latency. The real - time BI compares current business events with historical patterns to detect problems or opportunities automatically. Real-Time ETL tools collect the operational data from different heterogeneous sources for centralized data integration in real-time.Business rules are analyzed through query and reporting tools in real-time(Sahay and Ranjan, 2008).

❖ NoSQL

NoSQL database are increasingly used in big data, real-time web applications and real-time BI. A NoSQL database provides mechanism for storage and retrieval of data that is modeled by means other than tabular relations used in databases. NoSQL is also called “Not only SQL “to emphasize that they may also support SQL-Like query languages. MapReduce, Hadoop, Cassandra or Hypertable are the example of platform that provide the mechanism for ad hoc and on-time extraction, parsing, processing & analytics in a scalable and distributed environment (Chen et al., 2012)

❖ Text Mining

It is commonly used to process and analyze unstructured web content. Text analytics is required and used because a significant portion of the unstructured content collected by an organization is in the textual format, from e-mail communications and corporate documents to web pages and social media content (Chen et al., 2012).

❖ Dashboards

These are tools for visualization of important business data presented in the form of graphic indicators, charts and tables. Sometimes dashboards are treated as an easy to read, often single page, real-time user interface, showing a graphical presentation of the current status and historical trends of an organization's key performance indicators to enable instantaneous and informed decisions to be made at a glance. They aggregate and sensitive data using such methodologies like: BSC, SixSigma, and Economic Value-Added.

CONCLUSION

Business intelligence is a component that enhance the ability of organizations to retain their competitive advantage. This research proposes whole bundle of IT TOOLS for BI development. They include predictive modeling and data mining, text mining web mining, search based application, real- time BI, and BI NoSQL, dashboard. Some strengths and weakness of analyzed IT tools have been identified.

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CYBER CRIMES- CHALLENGES INDIAN CONTEXT

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ABSTRACT

Last past seventeen years, crime has been continue increasing making its way into the world of information. modern day a person steal money without knowing other person using Internet it is also part of Cyber Crime. Theft can steal credit card easily it vary dangerous. The most common parts of computer crime reported include child pornography, fraud, and e-mail abuse .year by year cyber crime increasing in India. We also the difficulty in detecting computer crime, techniques for attempting to prosecute or prevent such crimes, and the effectiveness of these measures.

Keywords: Challenge, Cyber Law, Global Cyber Law, national Cyber Criminal Court, Cyber Cop, World

INTRODUCTION

Early years of civilization, man has always been motivated by the need to make improvement and good the existing technologies. Nowdays internet is used most of common every person life. Internet is a globally recognized network of computers, all speaking the common language. the number of Internet connected devices reached 23.4 billion in 2018.

Cyber law means Cyberspace is being governed by a system of law. Cyber law is term which is all the legal and regulatory aspects of Internet. Internet increasing, many legal issues. committed against individuals or groups of individuals with a criminal motive to intentionally harm the reputation of the victim or cause physical or mental harm to the victim directly or indirectly, using modern telecommunication networks like that SMS, Chat such as Internet.

Nationally, both governmental and state actors engage in cyber crimes, such as espionage, financial theft, and other cross- border crimes. Activity crossing state borders and involving the interests of at least one state is sometimes referred to as cyber warfare. The national legal system is attempting to hold actors accountable for their actions through the national Criminal Court.

HISTORY OF CYBER CRIME

Prevention of cyber crime were started to expand by members of IT revolutions development of this technology, cyber crime part of against society. Cyber Crime example can be seen in the records which recognized encryption and decryption of information was in existence in as back as by an Egyptian in 1900BC. there danger turned into no reality. there is computer form around in 300BC in India. in 1870 years, hacking traced brand new telephone by telephone phreaking (its hack into telephone system i'e free call obtain). telephone phreakers had an extra learn something about computer system. year by year highly educated person is involve in cyber crime. eg. programmers, engineers, administrators, with new technology information. For example, hacker can be played used Massachusetts Institute of technology's (MIT) artificial intelligence laboratory became the field..new Information Technology is used to in 1966 years Minnesota Bank was robbed by cyber criminals .

Cyber world and network was open to worldwide users in 1970 years. And by in 1970 years is also world face crime pornography. normal people is don't know about personal computer in 1980 years . Therefore, at that time in Russia programmers attached to computer centres and cyber cafes. e.g. IBM, DEC, operating system, software packaging. Hacker were arrested for 60 computers from memorial sloan in 1980. Cyber law enforcement agency investigated an Indian hacker also known as "fry guy" for hacking Mc. Donald's information.

CYBER CRIME: Cyber crime is relates computer and network. computer crime which is a person carries out a harmful, illegal uses special information and cyber space .there are many multicultural organization include high tech crime policy. cyber crime is related child pornography ,email fraud etc.

REASONS FOR CYBER CRIME

The reason of law of concept is human being support so rule are required prevent them. cyberspace is useful that it is play role safeguard against them cyber crime.

1. Capacity to store data in relatively small space:- The computer has a unique feature of storing data in a very small space. This allows for much easier access or deletion of information during either physical or virtual media.

2. Easy to entrance:-
The problems encountered in guarding a computer system from unlawful entrance are that there is every prospect of unlawful access not due to human error but due to the difficult technology.
3. Complex-
The computers work on operating systems and these operating systems have millions of lines of code. The human mind is weak and it is not possible that there might not be a descend at any stage. The cyber criminals take advantage of these lacunas and go through into the computer system using system engineers.
4. Negligence:-
Negligence is very directly attached with human behavior. It is therefore very possible that while defending the computer system there may be any negligence, which in turn provides a cyber criminal to gain access and take manage computer system. This negligence is usually a property of under resourced IT security supplies and the upgrading of security barriers within software packages could lead to improved security. Negligent behavior of a person can also put a system vulnerable
5. Loss of evidence:-
Loss of evidence is a very common & obvious problem as all the data is routinely destroyed. Further collection of data outside the territorial extent also paralyzes the system of cyber crime investigation.

CHALLENGE

There is now a sophisticated and self-sufficient digital underground economy in which data is the illicit commodity. Stolen personal and financial data – used, for example, to gain access to existing bank accounts and credit cards, or to fraudulently establish new lines of credit – has a monetary value. This drives a range of criminal activities, including phishing (the act of attempting to acquire information such as usernames, passwords, and credit card details and sometimes, indirectly, money, by masquerading as a trustworthy entity in an electronic communication), pharming (the fraudulent practice of directing Internet users to a bogus Web site that mimics the appearance of a legitimate one), malware distribution and the hacking of corporate databases, and is supported by a fully fledged infrastructure of malicious code writers, specialist web hosts and individuals able to lease networks of many thousands of compromised computers to carry out automated attacks.

2. In the last decade advances in communications technologies and the "information" of society have converged as never before in human history. This has given rise to the industrialization of a type of crime where the commodity, personal information, moves far too quickly for conventional law enforcement methods to keep pace

The unprecedented scale of the problem threatens the ability of the authorities to respond with millions of viruses.

CONCLUSION

The cyber crime is a new creation of crimes made by a class of logical, complicated criminals. Since long time the criminal jurisprudence was totally ignorant of such types of crimes, although these were unswerving in different forms during early growth of crimes and criminology. One can say that the cyber crimes started to operate when technology reaches its climax and took to satisfy human needs and requirements.

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DEMONETIZATION

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ABSTRACT

Demonetization: Demonetization is an important tool of State Economic Policy. Often, Demonetization is resorted to prevent deployment of the legal tender (currency notes) for nefarious activities, like tax evasion, hoarding black money, funding terrorism, anti-national activities and drug-peddling etc. World over, Demonetization has been put into effect for serving these objectives. In India, we have instances of Demonetization effected in 1938, 1946, 1954 and 1978, The most recent was announced as a surprise on 8 November 2016. Rs.500 and Rs.1000 denomination Mahatma Gandhi series of notes were withdrawn. This formed 86% of the (currency) notes in circulation. These could be exchanged with new Rs.2000 notes released by the Government. . There were time lags in printing and logistics of the new notes as well as ATM calibration for filling Rs.2000 notes. Exchange process and withdrawal of money from bank accounts were rationed out. These caused hardships to the common man. Many died or committed suicides not being able to withstand the rigors of exchanging notes and failing to meet committed payments related to marriages or medical expenses etc. The declared purposes . Reports pointed to exchange completed of 99% of the demonetized notes with new notes. It is revealed that the economic growth rate decelerated and unemployment problem aggravated. Remonetization should always follow Demonetization. Ideally, the time lag between the two should be short.

Keywords: demonetization, remonetization, currency notes, denominations,

DEMONETIZATION

1. Understanding Monetization, Remonetization and Demonetization.

1. What's it ?! : Money ?! – De/Monetisation ?! --What does it mean !

2. Okay let us get to understand what's "Money" first.

3. It is that which can serve as a good medium of exchange and store of value.

4. Invention of Money was as eventful in human civilisation as that of the Wheel.

5. One has problems having it in plenty and equally so if you are in dearth of it!

1.1 Classic age-old functional definitions or axioms about money:

Two simple definitions from Monetary Theory:

1. Money is what Money can buy.

- "Money is a matter of functions four - A medium, a measure, a standard, a store"

2. Money is what Money can do.

- "Money is what money does".

1.2 Monetization¹ - establishing something (e.g. gold or silver) as the legal tender of a country (monetisation validation, substantiation, proof - the act of validating; finding or testing the truth of something Demonetization, demonetization - ending something (e.g. gold or silver)) as no longer the legal tender of a country

1.3 Monetization² (also written **monetisation**) is a term used to describe various processes. In banking the term refers to the process of converting or establishing something into legal tender. While it usually refers to the coining of currency or the printing of banknotes by central banks, it may also take the form of a promissory currency.

The term "monetization" may also be used informally to refer to exchanging possessions for cash or cash equivalents

1.4 Monetize³ [mon-i-tahyz, muhn-] verb (used with object), mon-e-tized, mon-e-tiz-ing. to legalize as money. to coin into money: to monetize gold. to give the character of money to. Economics. to convert (a debt, especially the national debt) into currency, especially by issuing government securities or notes.

1.5 Monetize⁴ To monetize is to establish an asset or object as legal tender. (Basically, it's the process of turning

a non-revenue-generating item into cash. The term "monetize" has different meanings depending on the context. Governments monetize debt to keep interest rates on borrowed money low and to avoid a financial crisis, while businesses monetize products and services to generate profit).

1.6 Demonetization ⁴ Demonetization is the act of stripping a currency unit of its status as legal tender. It occurs whenever there is a change of national currency: The current form of money is pulled from circulation and retired, often to be replaced with new notes or coins. The opposite of demonetization is remonetization, in which a form of payment is restored as legal tender.

1.7 Remonetization: (economics) ⁵ The act or process of remonetizing, or restoring to the status of legal tender

2. EVOLUTION OF MONE(Y)TIZATION

Many materials have been employed as money historically speaking, like, conch-shells, leather pieces, stones, bronze, copper, brass, silver, steel, aluminium, gold and silver etc. We see paper money as well as plastic money. Functionally, anything which can serve as a medium of exchange and also as measure for exchange of values as well as a standard and can be stored for use later is considered money. But the risks of thievery and carrying them around deterred its usage. From full 100% value-backing of gold and silver as representative circulation as Money, humans switched over to partial value-backing and today no- or negligible-backing of gold or silver. Money does not have intrinsic value today with paper-money in vogue. That too is replaced by plastic and E-money [debit, credit cards] and E-wallets, online payment mechanisms etc.

3. MONEY IS A SYMBOL OF SOVEREIGNTY

Each country has its own flag, language, money and other prerogatives of sovereignty. With the princely states unified into India at Independence in August 1947, Rupee became Indian's sovereign money.

4. THE RESERVE BANK MANAGES CURRENCY IN INDIA

Reserve Bank of India Act, 1934 confers the prerogative of note issue on RBI. The issuance of the currency is controlled by the Government of India too. The rupee is named after the silver coin, rupiya, first issued by Sultan Sher Shah Suri in 16th century and later continued by the Mughals. In 2010, a new symbol '₹', was officially adopted. The first series of coins with the new rupee symbol started in circulation on 8 July 2011.

5. MOST RECENT DEMONETIZATION IN INDIA

The Demonetization announcement was made by the Prime Minister of India Mr Narendra Modi in an unscheduled live televised address at 20:15 Indian Standard Time (IST) on 8 November 2016. In the Demonetization announcement, Modi-ji declared that use of all ₹ 500 and ₹ 1,000 currency notes [which is 86% of currency notes in circulation in India] of the Mahatma Gandhi Series would be invalid from midnight of the same day and announced the issuance of new ₹ 500 and ₹ 2,000 banknotes of the Mahatma Gandhi New Series in exchange for the old banknotes. However, the currency notes of lower denominations of the Mahatma Gandhi Series remain legal tender and are unaffected by the policy.

6. AIMS AND OBJECTIVES

It aimed at curbing black money, blocking funding for nefarious activities like terrorism and drug-peddling or narcotic control. The government claimed that the Demonetization was primarily to stop counterfeiting of currency notes. The move was described as an effort to reduce corruption, the use of drugs, and smuggling. The main reason given by the government for demonetising high denomination notes was to curb black money. Various estimates were made of the quantum of such money -- which is not expected to be deposited in banks -- ranging from Rs 3 lakh crore to Rs 5 lakh crore. On Tuesday, 6 December 2016, in a reply in Rajya Sabha, the Minister of State for Finance, Arjun Ram Meghwal, said that there were 17,165 million pieces of Rs 500 notes and 6,858 million pieces of Rs1,000 notes in circulation on November 8, 2016, the day Prime Minister Modi made the announcement of demonetising the two high denomination notes. The total amount of high denomination currency circulating in the system on that day was, thus, Rs15.44 lakh crore (Rs 8.58 lakh crore in Rs 500 notes and Rs 6.86 lakh crore in Rs 1,000).

7. REPRODUCING FROM NEWSREPORT DURING THE PERIOD FROM "BUSINESS LINE"

The note of ₹ 500 was introduced in October 1987-88 while notes of ₹ 1,000 were discontinued in January 1978 and re-issued in November 2000. The history of ₹ 1,000 note is interesting. It was first introduced in 1938 under the British rule and then demonetised in January 1946. Once again it was introduced in 1954 and demonetised in 1978 to be re-introduced in 2000. The total currency in circulation as on end March 31, 2016 is ₹ 16,415 billion of which notes of ₹ 1,000 denomination account for 38.6 per cent (₹ 6,326 billion) and ₹ 500 account for 47.8 per cent (₹ 7,854 billion). The importance of ₹ 500 has been increasing over the years, from 4.1 per cent on March 31, 1990 to 47.2 per cent on March 31, 2016. Similarly, the share of ₹ 1,000 note has

increased from 1.7 per cent in 2001 to 38 per cent in 2016. The total amount of ₹ 500 and ₹ 1,000 notes amount to ₹ 19,190 billion as compared with India's national Income of ₹ 1,35,761 billion in 2015-16 or about 10.5 per cent of GDP. Assuming that the size of unaccounted economy in India, conservatively, was nearly 30 per cent of the official economy, amount of ₹ 4254 billion in high denomination notes could be due to unaccounted money.

8. HISTORY AND BACKGROUND OF DEMONETIZATIONS IN INDIA

The sudden move to demonetize Rs 500 and Rs 1,000 currency notes is not new. Rs 1,000 and higher denomination notes were first demonetized in January 1946 and again in 1978. The highest denomination note ever printed by the Reserve Bank of India was the Rs 10,000 note in 1938 and again in 1954. But these notes were demonetized in January 1946 and again in January 1978, according to RBI data.

9. DISASTROUS SOVEREIGN DECISIONS : FAILED INDIAN DEMONETIZATION DRIVES OF THE PAST

13.1 History is replete with cash/currency crunch created in Indian kingdoms:

Only Muhammad Bin Tughlaq could do what he did....?! The one decision for which Muhammad bin Tughlaq, the 19th century sultan of Delhi, is most remembered, is the disastrous shifting of his capital from Delhi to Daulatabad in the Deccan, in present-day Maharashtra. The hardship this sudden move caused to the people led to his name becoming an idiomatic expression in Hindi-Urdu denoting an unhinged dictator. But this wasn't the only one of Tughlaq's decisions that ended in disaster.

9.2 Muhammad Bin Tughlaq and his monetisation, Demonetization and remonetisation endeavours:

Tughlaq took a major gamble with the currency in his kingdom. He introduced paper currency like the Chinese had done and the same could not succeed. Unfortunately for the ruler, that move was a disaster, leading to a weakening of his sultanate. He died in

- | | |
|---|---|
| 1. 100% Fake currency out of circulation in one stroke | 9. All business men are depositing cash lying with them as current yr income with ADVANCE TAX |
| 2. Hawala sources dried up for Funding of Terrorists, Maoists, Naxalites Jihadis. | 10. ALL Jewellers are being issued Forms to declare their GOLD STOCK on day to day basis. |
| 3. Cash to create chaos & terror lying with Terrorists, Maoists, Naxalites, Jihadis gone waste. | 11. Defaulters of Banks ,Property Tax , Electricity bills, Telecom bills are clearing their long pending dues |
| 4. Kashmir back to normal, AAZADI forgotten, no schools burnt & no stone pelters to be found. | 12. Defaulters of all kind of Govt taxes are clearing their dues |
| 5. Banks have started mobile ATM for Hospitals | 13. Small vendors have started using Apps & Card Machines. |
| 6. Jan Dhan accounts are full with money | 14. Fiscal deficit of India set to reduce. |
| 7. 55 lakh money disputes settled in one day in lok adalat | 15. Businessmen with declaring their black money as income & depositing with Advance Tax. |
| 8. More then 3 lakh cr cash already deposited in Banks | |

10. Here's a Whatsup Post on Effects of Demonetization in India



11. PICTORIAL NEWS REPORT EXCERPTED FROM THE NATIONAL DAILY THE INDIAN EXPRESS OF THE TIME

Long queues outside banks and ATMs became a common sight following announcement to demonetise Rs 500 and Rs 1,000 notes. (Express Photo: Praveen Khanna)

1. Long queues outside banks and ATMs became a common sight following PM Narendra Modi's announcement to demonetise Rs 500 and Rs 1,000 notes. (Express Photo: Praveen Khanna)
2. 33 deaths were reported across the country that can be directly or indirectly linked to the sudden Demonetization move.
3. There have also been reports of suicide and even a murder over Demonetization in West Bengal.
4. Chaotic scenes and long queues were seen outside banks and ATMs across the country as people rushed to withdraw or exchange notes to pay their every day bills.

12. DID DEMONETIZATION PROVE THE PROVERBIAL TRUTH: PUTTING THE CART BEFORE THE HORSE?!

Rs.2000 Denomination Notes were issued in plenty, but the lower denomination notes were found wanting. Rs.2000 notes have enhanced security features but it is not easily acceptable with short-supply of lower denomination notes. Calibration of the ATMs for fitting Rs.2000 notes into them was slow-moving and time-consuming process. Logistics and movement of the Notes (both cancelled and new ones) was a problem. "Re-Monetisation" (issuance of new notes of Rs.500/- and Rs.1000/- in replacement) was slow in catching up and easing the circulation glitches and issues.

18. DEMONETIZATION AND THE ONSET OF SERENDIPITIES

- ✧ "Serendipity" refers to situations where solutions to problems becomes problems to solve and progressing as such like recurring decimals.
 - ✧ "Demonetization" appears to be a good plan gone awry / ill-executed initially atleast.
 - ✧ Maybe implementation was lacking in "finesse" and is "bungled".
 - ✧ There were frequent announcements about rationing of cash and withdrawals limits as applicable to one and all. Relaxations were being made to meet urgent withdrawals of money for marriages.
 - ✧ Hospitals, Chemists and Druggists, and various other utility services were exempt from accepting the defunct Rs.500 and Rs.1000 denomination notes for the limited period.
 - ✧ There were weekly limits laid down of Rs.4000 for ATM Withdrawals and for withdrawals from Savings Accounts and Current Accounts respectively. Relaxations were made for meeting wedding expenses.
 - ✧ Government set deadline of the defunct currency notes for deposit into bank accounts till end of December 2016 and extended till March 2017.
 - ✧ The PM appealed to the public to bear with the situation for 50 days and he hoped normalcies would be restored by January 2017.
 - ✧ The Economic Survey of India⁶ (General Budget 2016-17 tabled in Parliament) called the demonetization as unprecedented and having "given digital push" to the economy. Definitely a vast majority of Indians (even in rural areas) shifted to online mode of payments, but, the analysis in India and abroad have pointed out that demonetization of November 2016 has failed to do what it was supposed to do and its impact has turned out to be more protracted than initially expected.
1. "India's controversial demonetization move undoubtedly hurt growth, but its full impact on the economy hasn't been felt yet", the country's former central bank chief, Dr Raghuram Rajan⁷ told CNBC TV18 in an interview. "I think undoubtedly it has had some effect because we were growing between 7.5 and 8 percent in the first quarter of 2016, and then we've slowed considerably since then".
 2. **ANZ Research: (post-demonitization economic analysis)⁷:** India's growth slowed to 6.1 percent in the first quarter of 2017 and moderated further to 5.7 percent in the subsequent three months. the near-term outlook for India's economy was pessimistic, with the impact of demonetization aggravating other negative developments, such as a subdued business cycle...unemployment and (falling) output of the unorganized sector, which has traditionally relied on cash transactions.

19. HISTORICAL RECORDS OF DEMONETIZATION INSTANCES FROM ACROSS THE WORLD⁸

19.1Ghana

In 1982, Ghana rolled out the decision to demonetise their 50 cedi currency notes in order to monitor money laundering and corruption. The change was not welcomed warmly, creating chaos across the country and finally resulted in a move back to physical assets and foreign currency.



19.2 Nigeria

Nigeria's economy collapsed after the 1984 Demonetization move that did not go as planned. The military government of then President Muhammadu Buhari introduced different coloured notes to invalidate their old currency in order to fight black money.



19.3 Myanmar

Around 80% of Myanmar's currency was demonetised in 1987 by the military to curb black money, but the move resulted in a lot of protests and the country witnessed several killings.



19.4 Soviet Union

Under the governance of Mikhail Gorbachev in 1991, the then Soviet Union demonetised the higher denominations of ruble bills, the 50s and 100s. The move did not go well and resulted in takeover of Mikhail's leadership within eight months of the plan.



19.5 North Korea

North Korea faced Demonetization of their currency in 2010, which led to major economy breakdown with people left to starve for basics.



19.6 Zimbabwe

Zimbabwe once had hundred trillion dollar note, which was demonetised and was exchanged in a mocking way dropping trillion dollars to \$0.5 dollar.



19.7 Australia

Australia became the first country to release polymer (plastic) notes to stop widespread counterfeiting. Since the purpose was to replace paper with plastic and only the material changed, it did not have any side-effects on the economy.



19.8 Pakistan

From December 2016, Pakistan will phase out the old notes as it will bring in new designs. Pakistan legally issued the tender a year and a half back, and therefore, the citizens had time to exchange the old notes and get newly designed notes.



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REAL LIFE APPLICATION OF DERIVATIVES

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1. ABSTRACT

We present and analyze the definition, history and the application of derivative in real life.

Keywords: Business, automobile, economics

2. INTRODUCTION

Derivatives are fundamental tool of calculus. Calculus in the ancient era was known as infinitesimal calculus. It is a mathematical feature which focuses on limits, functions, derivatives, integrals and infinite series. Derivative is the rate of change of one quantity with respect to other. It guides about how larger things can be made from smaller things. It helps us to determine the maximum and minimum values of particular functions such as cost, strength, amount of material used in building, profit, loss, quantity to be used for production. In short derivative is slope. It helps us to estimate the growth, cost, revenue of a organization. It tells us about the direction, whether it is increasing or decreasing. It has its application in various fields such as physics, chemistry, biology, mathematics, sociology, psychology and geology. In mathematics, it is the rate of change of independent variable with respect to The process of finding derivatives is called differentiation.

3. HISTORY

Derivative was coined by scientists Issac Newton and Gottfried Leibniz in the early 17th century. Issac Barrow started the early development of derivative in 16th century. Without the efforts of Issac barrow it was impossible for Newton to proceed the work. Later Gottfried came up with symbols dx , dy and $\frac{dx}{dy}$. Lagrange introduced

notation $f'(x)$. Newton's notation \dot{y} . Euler's notation $Df = \frac{df}{dx}$.

4. APPLICATIONS OF DERIVATIVES

4.1Automobile

It is a four wheeled vehicle called car, It is used for transportation of passengers or goods. It runs on fuel such as natural gas, petrol, diesel . It was invented by Karl Benz in 20th century. It consist of in total 101 parts. It have control over driving, comfort, safety, parking .As the trend is changing, man more designs have emerged. Now we will look upon how derivatives are used in automobiles. Derivatives help us to calculate the speed of the vehicle and the distance covered within a specific time I.e in hrs. For this specially designed parts speedometer and odometer. Speedometer shows the speed and odometer shows the distance. Earlier eddy current models were available but nowadays electronic models are there. They sent the data to the motherboard which convert it into miles per hour and distance in km.

$$\text{Speed} = \frac{\text{distance}}{\text{time}} = \frac{ds}{dt}$$

4.2Business

A business is an assembly where people work. It is the act of making money by producing, buying or selling goods. It is either done individually or in partnership. Business comes from the word busy. A business can also earn profit for products. A business can be done on large scale as well as on small scale. Economic growth has a great impact on business. Derivatives help a lot in estimating growth of a business. For ex if we have the data of products which are sold over the last few months, then by plotting the graph, we can examine the steepness of the graph and estimate the growth.

4.3Economics

It studies about the production of goods, distribution of goods and consumption of goods. The branches of economics are macroeconomics and microeconomics. There are certain functions in economics which are

related to derivatives i.e marginal revenue= $\frac{dR}{dx}$,

$$\text{marginal cost} = \frac{dC}{dx} \text{ and}$$

$$\text{marginal profit} = \frac{dP}{dx}$$

Where x is the number of units produced

R is the total revenue function

C is the total cost function

Profit = R - C

5. CONCLUSION

Derivatives are used in everyday life to investigate the changes. They are everywhere and play an important role in our life.

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A REPORT ON CONSUMER BEHAVIOUR TOWARDS FMCG PRODUCTS WITH RESPECT TO HUL

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ABSTRACT

Fast Moving Consumer Goods popularly known as FMCG is as the name suggest are the most demanded products in the market. It includes everything from food items like flour, biscuits, ice creams, etc to body products like soaps, face creams, etc to cigarettes to beverages, etc. Consumer needs these things in their everyday life so they invest a good portion of their income in these things. There are so many companies dealing in FMCG products like HUL, Dabur, Cavin Care, Amul, dealing in dairy products etc. By vary nature of the products the companies are seeing this as the great source of income. As large number of companies is seeing this as the profitable venture, so for sustaining their position and gaining new market they have to bring something unique in their products or services to gain position or sustain there.

This paper focuses on tracking down the changing requirements, preferences, needs of customers and their changing perspective on the different products offered.

CONSUMER BEHAVIOUR

Consumer Behaviour is viewed as an orderly process whereby the individual interacts with his or her environment for the purpose of making marketplace decision on products or services. There are many factors that influence consumer behaviour. Potential customers are subject to various stimuli. The service firm must understand how the consumer would respond to different service features, price, appeals etc, along with the major forces in the marketing environment such as economic, social, cultural factors. All the above mentioned stimuli influence the buyer's decision-making process and evoke positive or negative response towards the product or service.

Consumer Behaviour is "The study of individuals, groups or organizations and the processes they use to select, secure, use and dispose of products, services, experiences or ideas to satisfy needs and impacts that these processes have on consumer and society,"

In short, consumer behaviour involves the psychological processes that consumer goes through in recognizing needs, finding ways to solve these needs, making purchase decisions (e.g., whether or not to purchase a product and, if so, which brand and where), interpret information, make plans, and implement these plans (e.g., by engaging in comparison shopping or actually purchasing a product).

Stages of Buying Decision Process

Most of the successful companies research the buying decision process involved in their product category. They ask their consumer when they first became acquainted with the product category and brands, what are their brand beliefs, how involved they are with the product, how they made their brand choices and how they are satisfied after purchase.

In a typical buying process the consumer passes through five stages:

1. Problem recognition
2. Information search
3. Evaluation of alternatives
4. Purchase decision
5. Post purchase behaviour

Introduction to HUL

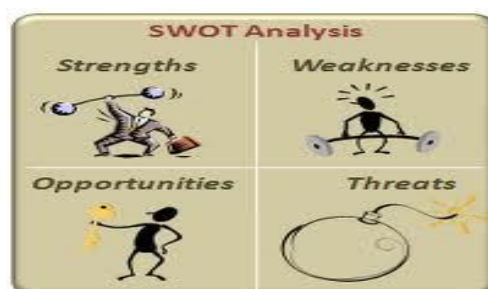
Hindustan Unilever Limited (abbreviated to HUL), formerly Hindustan Lever Limited, is India's largest consumer products company and was formed in 1933 as Lever Brothers India Limited. It is currently headquartered in Mumbai, India and its 41,000 employees are headed by Harish Manvani, the non-executive chairman of the board. HUL is the market leader in Indian products such as teas, soaps, detergents as its products have become daily household name in India. The Anglo-Dutch company Unilever owns a majority stake in HUL.

The company was renamed in late June 2007 as “Hindustan Unilever Limited”.

Some of its brand includes Kwality wall's ice-cream, Lifebuoy, Lux, Breeze, Liril, Rexona, Hamam, Moti soaps, Pureit water purifier, Lipton tea, Brooke Bond Tea, Bru coffee, Pepsodent and Close Up, toothpaste and brushes, Surf, Wheel and Rin laundry detergents. Kissan squashes and jams, Annapurna salt and aata, Pond's talcs and creams, Vaseline lotions, Fair and Lovely creams, Lakme beauty products, Clinic Plus, Clinic all clear, Dove and Sunsilk shampoos, Vim dishwash, Alan bleach and domex disinfectant, Rexona, Modern bread and Axe deospray. HUL has produced many business leaders for corporate India. It is referred as a ‘CEO Factory’ in the Indian press for the same reasons. Its leadership building potential was recognized when it was ranked 4th in the Hewitt Global Leadership Survey 2007 with only Ge and P&G and Nokia ranking ahead of HUL in the ability to produce leaders with such regularity.

Today HUL is India's largest exporters of branded Fast Moving Consumer Goods. It has been recognized by the government of India as a Golden Superstar Trading House.

Swot Analysis OF HUI



STRENGTHS	WEAKNESS
BRAND IMAGE	HIGH OPERATING COST
CUSTOMER LOYALTY	CHANGING DEMAND PATTERN
OPPORTUNITIES	THREATS
LARGE DOMESTIC MARKET	INCREASING COST OF RAW MATERIALS

OBJECTIVES

1. To study customer buying behaviour and factors which influence the purchase decision process.
2. To identify and study the market performance of Hindustan Unilever Products.
3. To study the SWOT Analysis of HUL.
4. To evaluate the steps taken by Hindustan Unilever Ltd. to be market leader and to differentiate itself from its competitors.

1.3: Research methodology

There is large number of FMCG companies in the market, to find the defining strategies used, the methodology used is interview and survey method.

The method used for data collection is Primary data and Secondary data.

Primary Data

Data that has been collected from first-hand-experience is known as primary data. Primary data has not been published yet and is more reliable, authentic and objective. Primary data has not been changed or altered by human beings; therefore its validity is greater than secondary data.

Primary Data has been collected through personal contact. For this purpose both questionnaire and one-on-one interview was considered with the consumers and shop owners.

Secondary Data

Data collected from a source that has already been published in any form is called as secondary data. The review of literature in the research is based on secondary data. Mostly from books, journals and periodicals.

Secondary data has collected from newspaper and websites.

Sampling Technique

For my survey I used Cluster Sampling technique. I selected a sample of 30 people around the area and interviewed them according to the questionnaire. In the survey I tried to find out their preferences & tastes, their purchasing habit, are they brand loyal or they consider their friends advice or some reference group during purchasing. I also tried to find out that are they satisfied with the quality or present state of product, did they want any change in the existing product.

Limitations

The present study is subject to certain limitations:

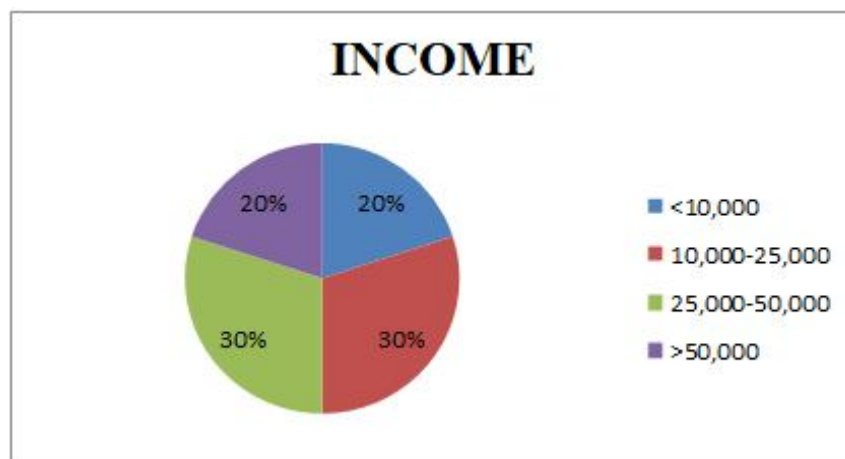
1. Method of data collection was through personal interviews and therefore improper response becomes a major limitation.
2. The respondent chosen were mainly from Mumbai city. So the result does not include the responses of rural consumers.
3. Time pressure and fatigue on the part of respondents and interviewer.
4. The project undertaken needs a lot of secondary data so the availability and precision of this data forms the major limitation as the biasness has to be minimized.

Data Analysis

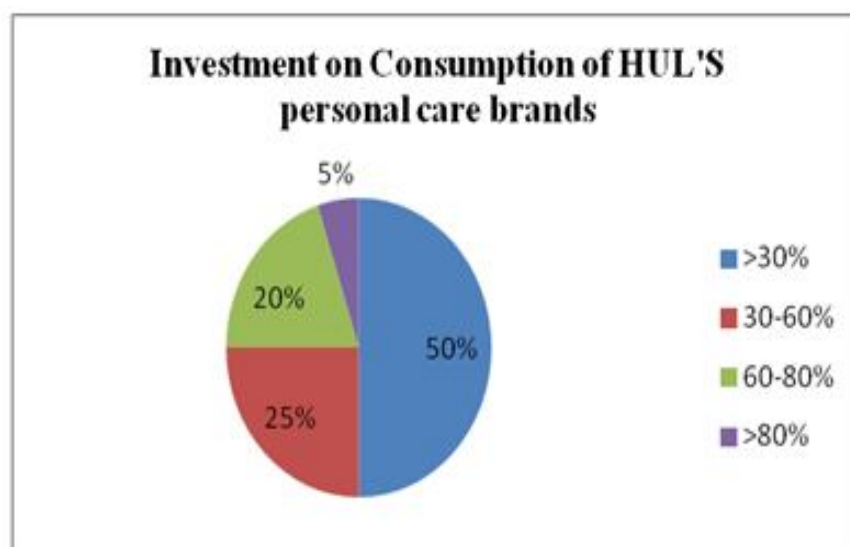
Data analysis is an important stage of a research process. It allows the company to know its market position and consumer behaviour towards their products. Also it allows the company to expand or diversify their business through this research.

DATA COLLECTED FROM CUSTOMERS:-

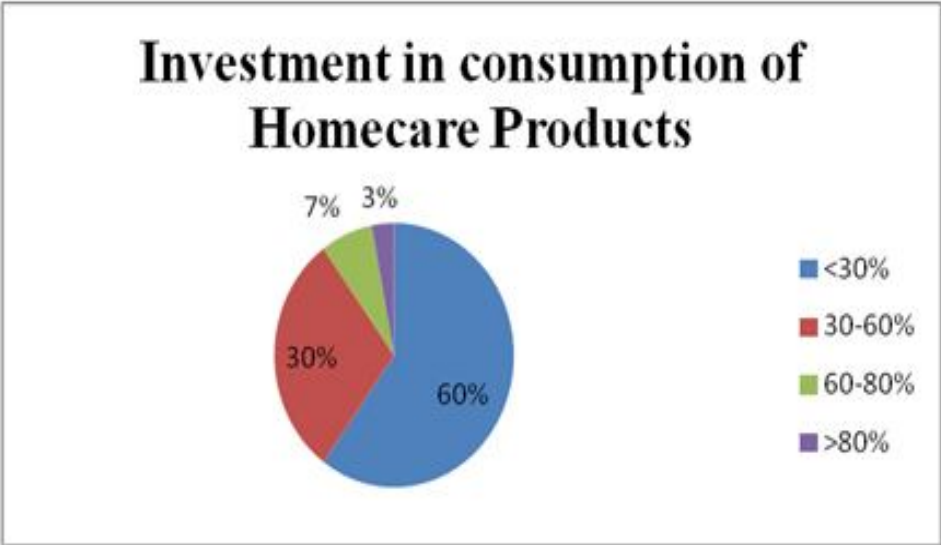
Q.1 How much is your Income?



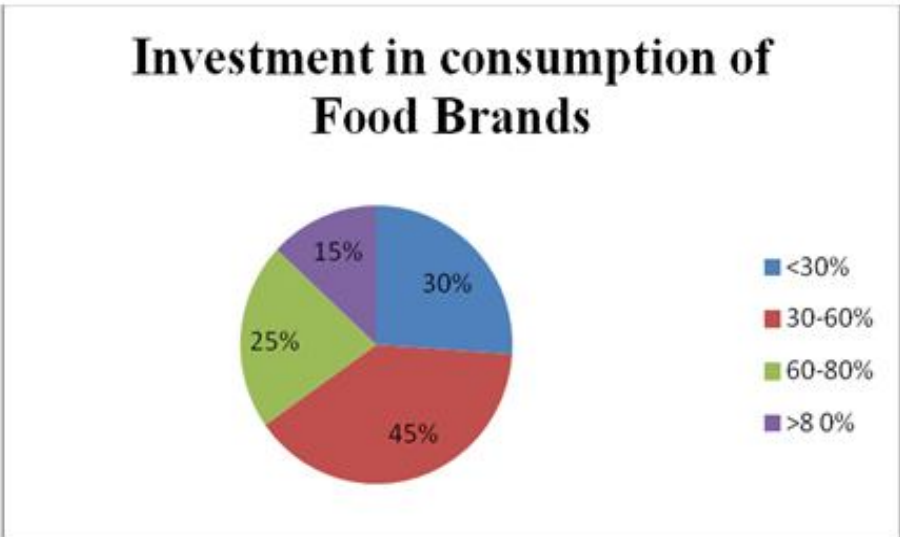
Q.2 How much do you invest on consumption of HUL products?



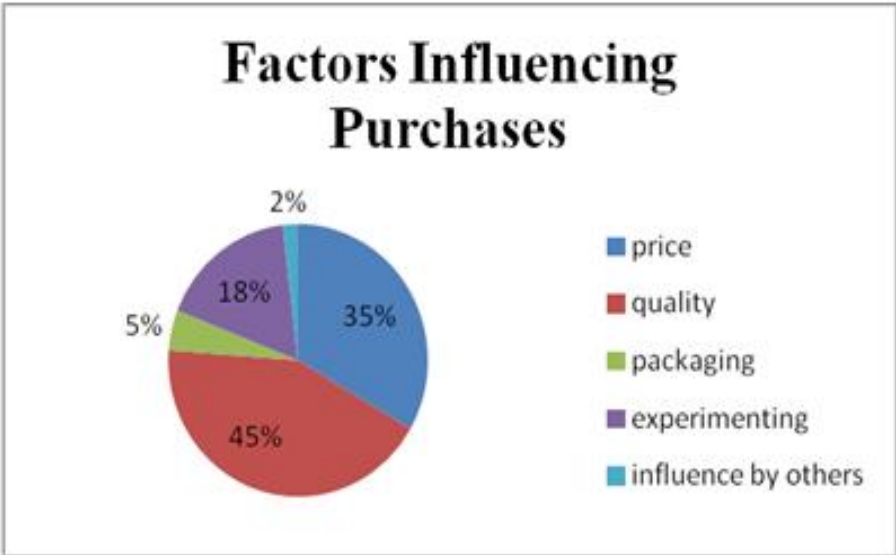
Q.3 How much do you spend on homecare products like Active Wheel detergent, Comfort Fabric softeners, Domex toilet cleaner, Vim dishwash?



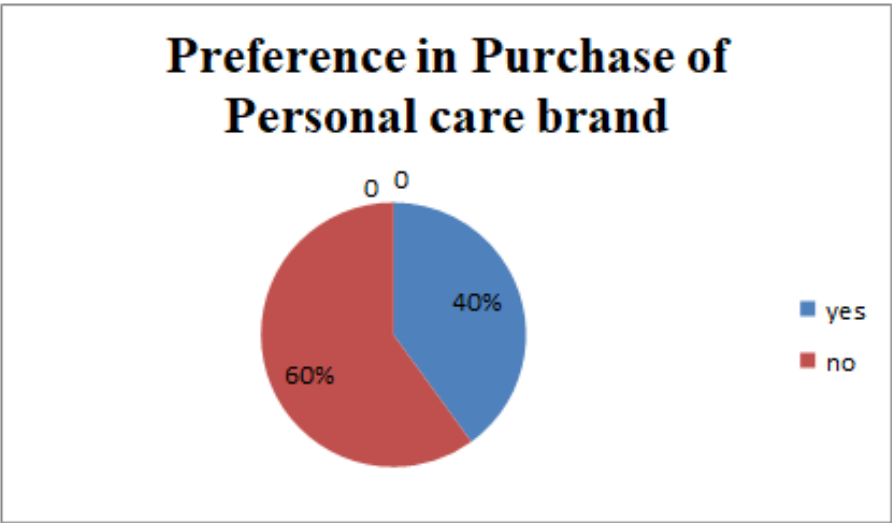
Q.4 How much do you spend on Food Brands such as Lipton Tea, Kissan squashes, juices, Brooke bond tea, Bru coffee, Knorr soups, Kquality Walls, etc?



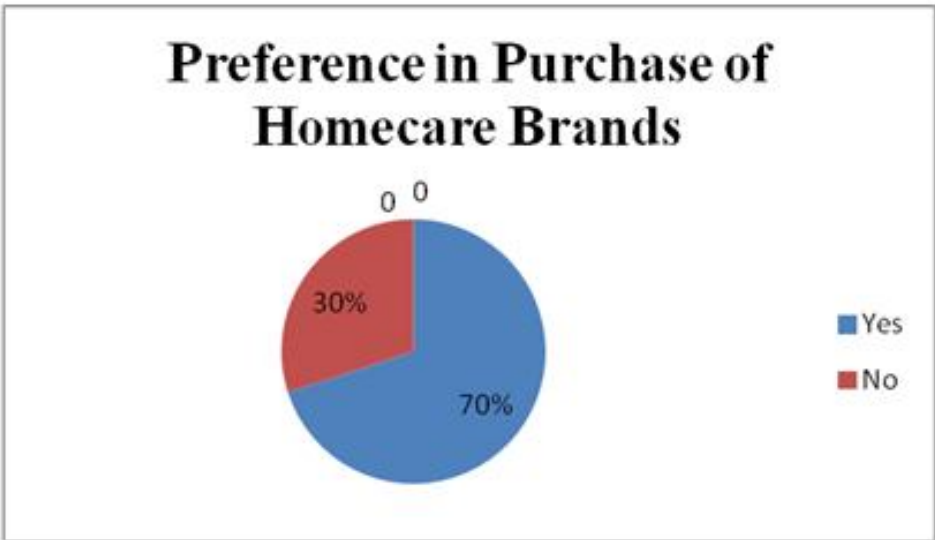
Q.5 During purchase, which of these factors influences your purchases?



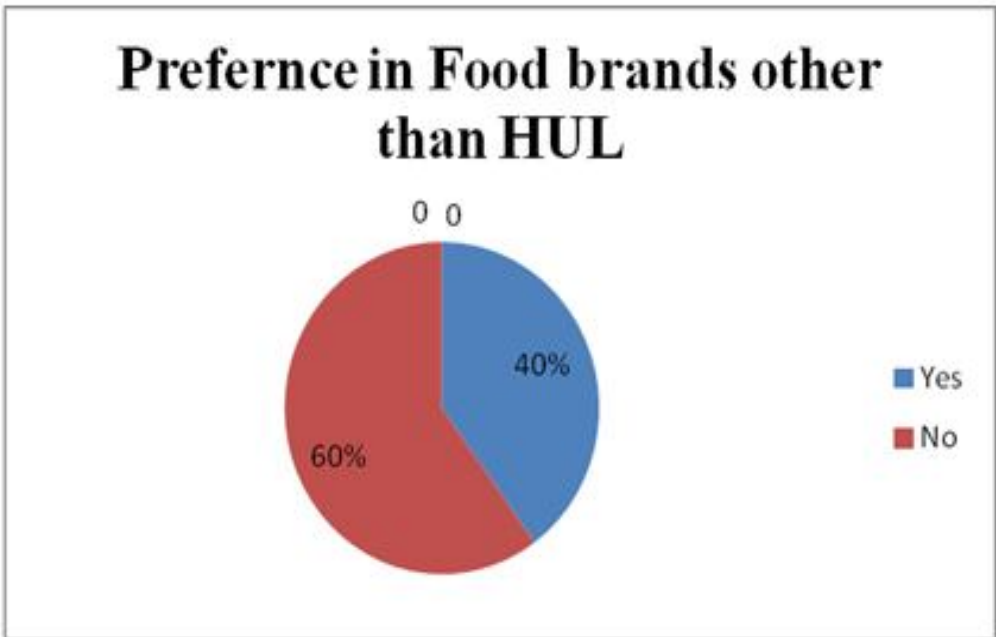
Q.6 Do you prefer any particular brand in Personal Care brands other than HUL?



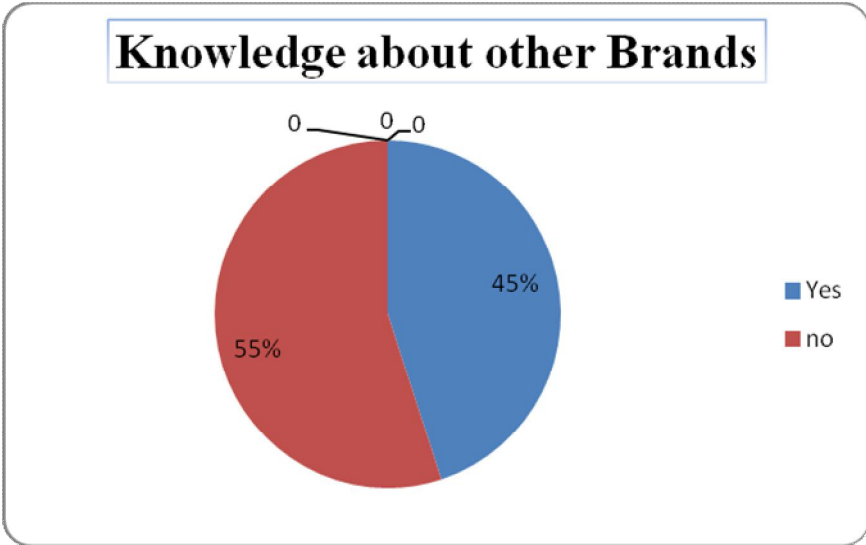
Q.7 Do you prefer any other brand in Homecare products other than HUL?



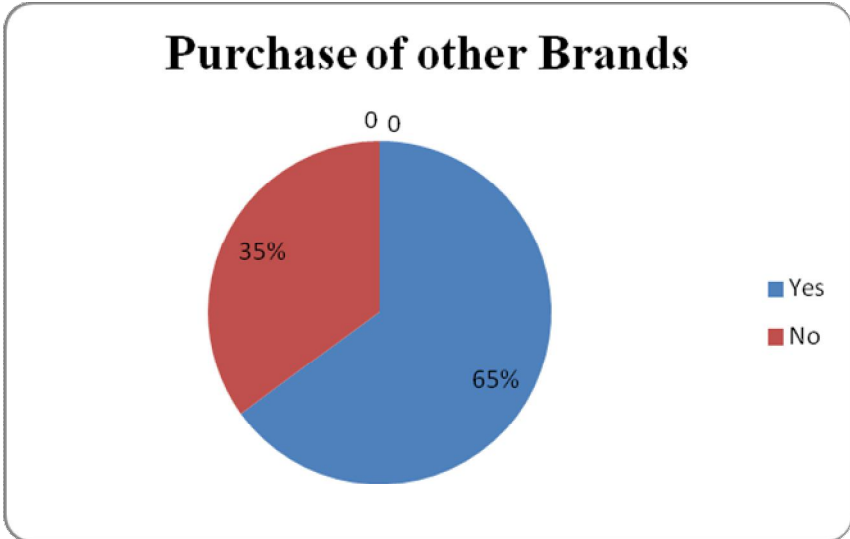
Q. 8 Do you prefer any other brand in Food brands other than HUL?



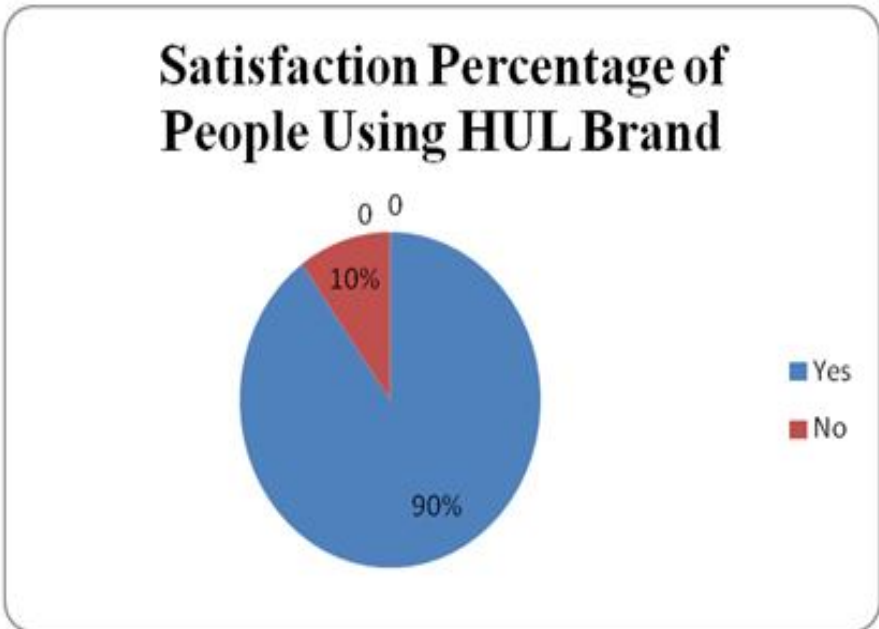
Q.9 Do you know about the different products of different companies in the same category of Personal care brands, Homecare and Food brands other than HUL?



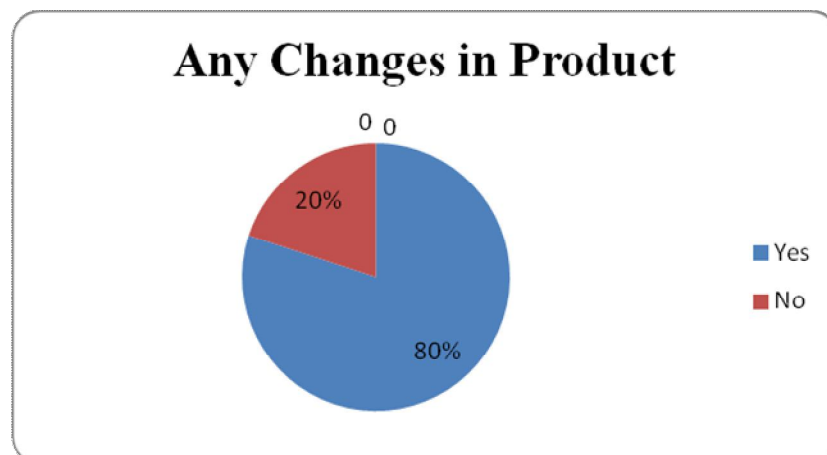
Q.10 Have you ever tried them?



Q.11 Are you satisfied with the products that you are using of HUL brand?



Q.12 Do you want any changes in the product?



4: CONCLUSION AND BIBLIOGRAPHY

CONCLUSION

From all the above data, we can clearly say that almost all the consumers using HUL products are satisfied. Even the necessary steps taken by HUL to improve the quality and increase its customers are recommendable. This clearly shows how HUL enjoys being the market leader since many years. HUL needs to improve its products and make the customers satisfy so that they do not go for different brands.

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DIGITILIZATION

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ABSTRACT

Electronic Revolution has ushered in "Digitalization" across all sectors, supplementing, supplanting and transforming. Invention of computers was made possible with binary digitization (bits and bytes moving) across electrical circuits mounted on silicone compound chips (discovered as specially suited for the purpose). Digitization¹: or digitalization¹, is the process of converting information into a digital (i.e. computer-readable) format. The digitized data in binary numbers, facilitate computer-processing and other operations. Digitalizing means the conversion of analog (proportions-based or weight-based) source material into a numerical format. Resplendence of Digitalization is ubiquitous in all sectors of the economy or walks of life. Agrarian economic sector, a large chunk of any economy, has been overwhelmed by digitization despite infrastructural debilities. Secondary sector of the economy engaged in manufacturing or processing have been digitized too. Industrial automation, robotics, internet of things and artificial intelligence have changed the face of the secondary sector. In the Tertiary Sector or Service Industry the technology overdrive is extensive and intensive. Governments across the world are propagating digitalization. Government of India has launched "Digital India Program" reaching the benefits all across the country. Ernest Young have set out a paper titled "digitisation of everything"⁹ and have underlined that digitisation is an imperative for digital innovation and digital strategy. This is why it is so important to get a head start in digitilization right away.

Keywords: digitalization, digitization, primary, agrarian, secondary, tertiary, quarternary and financial sectors, ebanking, einsurance, financial sector, internet kiosks, e-Choupal, rural digital infrastructure, digital innovation and digital strategy.

DIGITALIZATION

1. REALITY OF DIGILIZATION

Today resplendence of Digitalization is ubiquitous. It has transformed our lives and living. Many things are done today as never before...automated or digitized/digitalized. Down the ages and civilisations came many new finds. Mathematics is one such where common language are expressed in terms of mathematical operands (addition, subtraction, division and multiplication) and useful or meaningful outputs generated. Further advancements led to founding of geometry and algebra. George Boole in his first book **The Mathematical Analysis of Logic (1847)**, presented a branch of Algebra now called Boolean Algebra. Boolean Algebra denoted truth and false by 1s and 0s. This afforded numerical representation of logical facts by Binary/Binomial expressions in terms of 2. This laid the foundation of electronic or technological revolution. Facts are represented by 0s and 1s. Zeros represented non-existence or nothingness and ones meant existence or occurrence. Invention of computers was made possible with binary digitization (bits and bytes) movements enabled across electrical circuits on printed chips made of silicone compounds. 0s and 1s are called as the bits and a group of bits are called bytes. Anything can be represented as bits and bytes (called digitalization) and sensors recognise ones and permit electric currents and enable flow while zeros mean stoppage of the currents or non-movement. Technological advancements led to voluminous handling of 0s and 1s and supplanting human efforts. Digitalization is programming to do everything that man is capable of doing.

2.DEFINITIONS OF DIGITALIZATION

2.1. <https://en.wikipedia.org/wiki/>:

Digitization¹: [1][2] less commonly **digitalization**¹, [3][4][5] is the process of converting information into a **digital** (i.e. computer-readable) format, in which the information is organized into **bits**¹. [1][2] The result is the representation of an object, image, sound, document or signal (usually an analog signal) by generating a series of numbers that describe a discrete set of its points or samples. The result is called **digital representation** or, more specifically, a **digital image**, for the object, and digital form, for the signal. In modern practice, the digitized data is in the form of binary numbers, which facilitate computer processing and other operations, but, strictly speaking, **digitizing** simply means the conversion of analog source material into a numerical format; the decimal or any other number system that can be used instead.

2.2 www.gartner.com...is the use of⁶ (functional definition) digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.

2.3 www.merriam-webster.com...is the process⁷ (process definition) of converting something to digital form

(definition of digitalization and what it does).

2.4 www.businessdictionary.com...is the Integration⁸ (integrative definition) of digital technologies into everyday life by the **digitization** of everything that can be **digitized**. (defining integrative character of digitalization).

2.5. Defining 'digital'⁹

Digitisation at its simplest means the conversion of analogue information into digital information. As digitisation capabilities extend, virtually every aspect of life is captured and stored in some digital form, and we move closer towards the networked interconnection of everyday objects. The impact of this is a real-time global exchange of information between multiple connected devices (fixed and mobile). **fining '**

3. THE OUTREACH OF "DIGITALIZATION" ALL ACROSS

"Industrial Revolution" has faded away and "Digital Revolution" has catapulted worldwide. There is no field that is not disrupted or transformed. Initially, there were traces of digitalization into every economic sector or human walk of life. Today, the world is fluxed with digitalization/automation in every conceivable area of activity supplanting human labour.

3.1 In the primary economic sector which is vastly agrarian in nature and characteristically plagued with lack of infrastructure of every kind, there were doubts about digitalization. But within two decades in the 20th century, primary economies worldwide were electronocised and digitalised. Rural economy constitutes a vast chunk (60% to 80%) of the larger economy in every continent across the world. That these are digitalised is a major impact. Farmers in the agricultural sector, fishermen engaged in fishery, the workmen in horticulture, siriculture, floriculture and every nook and corner of the rural sector got digitalised. Agriculturists are educated for better yields through the digital media like video/radio talks, internet, and mobile messages. There are online offers for sale of agro products and deals settled as such.

3.1.1. The role of ITC Ltd.⁹ one of the Fast Moving Consumer Goods (FMCG) Corporates has made good use of digitalising its agro trade. ITC's¹⁰ pre-eminent position as one of India's leading corporates in the agricultural sector is based on strong and enduring farmer partnerships that has revolutionized and transformed the rural agricultural sector. A unique rural digital infrastructure network, coupled with deep understanding of agricultural practices and intensive research, has built a competitive and efficient supply chain that creates and delivers immense value across the agricultural value chain. ITC sources (digitally) the finest of Indian Feed Ingredients, Food Grains, Marine Products, Processed Fruits & Coffee.

3.1.2. Christened 'e-Choupal', ITC's empowerment plan for the farmer centres around providing Internet kiosks in villages. Farmers use this technology infrastructure to access on-line information from ITC's farmer-friendly website www.echoupal.com. Data accessed by the farmers relate to the weather, crop conditions, best practices in farming, ruling international prices and a host of other relevant information. **e-Choupal** today is the world's largest rural digital infrastructure.

3.1.3. The unique e-Choupal model creates a significant two-way multi-dimensional channel which can efficiently carry products and services into and out of rural India.

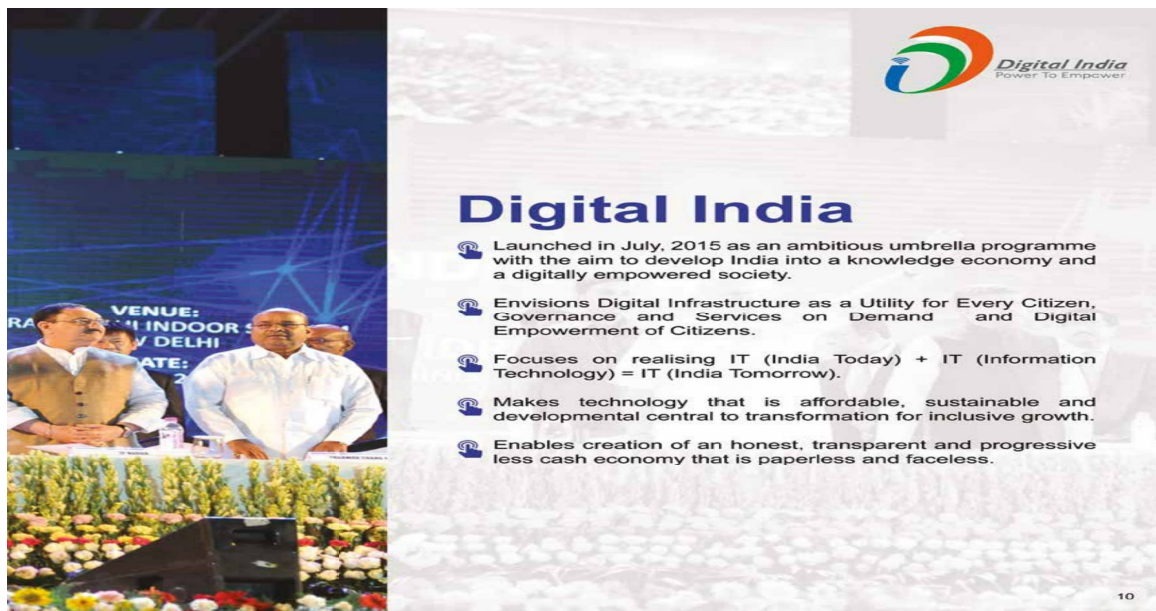
3.2 In the Secondary Sector all across the world digitilaisation has deeply embedded. Since independence, India is marching ahead to become a diverse industrial base. Industrial automation, robotics, internet of things and artificial intelligence are changing the face of the secondary sector. The secondary sector includes those that create a finished usable product and depend on primary sector industries for the raw materials. This sector includes mining, manufacturing and construction. The secondary sector contributes 24% of the share in Indian economy¹⁰. The (Indian) government had always laid stress on the industrial development. Thus policies and strategies were framed to give a boost to industry. The government aims at achieving self-sufficiency in production and protection from foreign competition.

3.3 In the Tertiary Sector: the technology overdrive is most powerful, extensive and intensive indeed. **Service sector¹¹** is the third of the three economic sectors of the three-sector (economic) theory. The others are the secondary sector and the primary sector. The service sector consists of the production of services (known as "intangible goods") include attention, advice, access, experience, and affective labor. The production of information has long been regarded as a service, but some economists attribute it to a fourth sector, **the quaternary sector**. It involves the provision of services to other businesses and final consumers. Example: Business Process Outsourcing, Data Processing, Call Centres etc.

4. A QUICK LOOK AT THE IMPACT OF DIGITILISATION IN VARIOUS FIELDS IN INDIA

5. Indian Railways (although being one of the largest organisations) has adopted and adapted to digitization conveniencing the passengers and cutting costs and avoidable time loss in booking passenger and goods traffic.
6. In India ebanking is stabilised, einsurance is catching up and mutual funds have shifted to the digital platforms leveraging technological capabilities.
7. Stock markets afford operate online and demat operations.
8. Indian postal department provides speed post trackig facility using the internet platform.
9. Educational institutions and universities in India have been making good use of technology, for admissions, video-based/online education, question papers on the net, online correction of answer papers and issue of eCertificates etc.
10. eRetailing has caught up very well spreading all across the country forcefully.
11. Amazon, Flipkart, Snapdeal, Shopcluesm TataCliq, BigBasket,Groffers, have massive ebusiness turnover on eCommerce platforms.
12. Foodpanda, Zomato, Swiggy, are equally successful as eRestaurateurs.
13. Uber, the foreign taxi-aggregator service, has gained foothold in India.
14. Ola, the Indian replication of Uber, too has succeeded in widening market share.
15. Indian Telecom Industry has boomed. India has maximum mobile connections reaching hitherto unreachable rural sectors.
16. The Telecom Ministry and TRAI, Telephone Regulatory Authority of India play a vital role in Telecom Revolution.

5."DIGITAL INDIA PROGRAMME" ROLLED OUT BY GOVERNMENT OF INDIA¹²



5.1 Vision of Digital India

The vision of Digital India programme is to transform India into a digitally empowered society and knowledge economy.

5.2 Vision Areas of Digital India: The Digital India programme : three key vision areas:

- **5.2.1. Digital Infrastructure as a Core Utility to Every Citizen:** Availability of high speed internet as a core utility for delivery of services to citizens. Cradle to grave digital identity that is unique, lifelong, online and authenticable to every citizen. Easy access to a Common Service Centre Shareable private space on a public cloud. Safe and secure cyber-space. Once the remotest of the Indian villagers are digitally connected through broadband and high speed internet, then delivery of electronic government services to every citizen, targeted social benefits, and financial inclusion can be achieved in reality. One of the key

areas on which the vision of Digital India is centred is “digital infrastructure as a utility to every citizen”. It is also proposed to provide citizens with “digital lockers” which would be sharable private spaces on a public cloud, and where documents issued by Government departments and agencies could be stored for easy online access. It is also planned to ensure that the cyberspace is made safe and secure.

- **5.2.2. Governance and Services on Demand:** Seamlessly integrated services across departments or jurisdictions. Availability of services in real time from online & mobile platforms All citizen entitlements to be portable and available on the cloud. Digitally transformed services for improving ease of doing business. Making financial transactions electronic & cashless. Leveraging Geospatial Information Systems (GIS) for decision support systems & development. A large number of initiatives have been undertaken to usher in an era of e-governance.. A massive countrywide infrastructure reaching down to the remotest of villages is being developed, and large-scale digitization of records is taking place to enable easy and reliable access over the internet. The ultimate objective was to make all government services accessible to the common man in his locality, through common service delivery outlets, and ensure efficiency, transparency, and reliability at affordable costs.
- **5.2.3. Digital Empowerment of Citizens:** Universal digital literacy, universally accessible digital resources, availability of digital resources / services in Indian languages, collaborative digital platforms for participative governance, citizens not required to physically submit Govt. documents / certificates. Digital connectivity is a great leveller. Cutting across demographic and socio-economic segments, Indians communicate with each other through mobile phones and computers riding on digital networks. The Digital India programme is focussed on a digitally empowered society, digital literacy, digital resources, and collaborative digital platforms, universal digital literacy and availability of digital resources/services in Indian languages.

6. THE "DIGITISATION OF EVERYTHING"⁹ (ERNEST YOUNG'S PAPER ON THE SUBJECT AND PROFERRING CONSULTANCY IN THE AREA ON SOLICITATION BASIS)

6.1 An imperative for digital innovation and engagement has emerged: businesses have already realised that they must use digital channels to engage with their key stakeholders to maintain relevance and drive the conversation. However, few realise how fast the change needs to happen, or how transformational it needs to be. The real imperative in a world where ‘everything’ is digitised is that businesses need to pursue innovation to disrupt their own business model before the competition does. Without innovation strategies, companies will lose their competitive advantage in an increasingly commoditised world. Technology change accelerates exponentially and new digital platforms and devices are emerging. The expectations of the new ‘generation Y’ or ‘digital natives’ mean that companies must keep up with the pace of change or lose relevance. The challenge for businesses is to face the implications of digital change, the loss of control over the customer relationship, increased competition and threat of commoditisation, and the need to engage digitally with suppliers, partners and employees in addition to customers. The starting point is a structured approach to assessing digital maturity. Companies must develop an end-to-end response. They need to develop a comprehensive digital strategy and rethink their business and operating models. Such a strategy has to be about ubiquitous cross-channel connectivity, enabling continuous engagement with customers, suppliers, employees and investors. It must also be about innovation and differentiation through the business/operating model.

6.2 The pace of technology change is increasing exponentially⁹: Most companies understand the need to respond and adapt to the evolving use of technology by their customers and other key stakeholders. Little time they have to address these changes.

6.3.The challenge: Facing the implications of digital change: Loss of control over the customer relationship⁹: The proliferation of digital channels and devices gives consumers greater access to information, and the means for communication and collaboration. The physical world is being replicated in the digital world through digital communities, businesses and assets, fundamentally changing the way consumers engage with businesses and each other. Information aggregation and price comparison have evolved. Consumers now have real-time, mobile access to data. Today’s consumer has real-time access to competitive pricing information simply by scanning a product barcode into the mobile phone and reading this information through an application such as Red Laser. Price transparency is increasing as consumers can compare the prices of products on the move, placing power firmly in their hand.

6.4 Conclusion: A new kind of consumer means: new ways of doing business:⁹

Today, most companies are either thinking about or pressing ahead with digital transformation initiatives. Every company has a website. and few marketing strategies are signed off without incorporating social media. Social

media is a critical component of any digital strategy, but a holistic response to the digital shift must go much further. The digitisation of everything is a step change even greater than the invention and adoption of the internet, because of its scale and pace of change. What we describe today as 'digital' in a few years time will have no need for the descriptive word. A 'digital camera' is already a mere 'camera' to those who know no different. In the same way, a 'digital' strategy will become usual business strategy. This is why it is so important to get a head start and learn while there is still time.

7. STATUS UPDATE ON DIGITILAZATION

Not being digital-ready is sure to render redundant or obsolete and hitting hard at survival. Catching up is not easy either. Cost, capability, capacity, scale of operations, financial standing and soundness, availability of infrastructure are important factors. It needs planned prioritizing to sustain the tempo of digitalization. Journey has begun and a long way to go. All the same, well begun is half-done rather than being non-starter in digitalizing is what one can sum up.

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STUDY ON “CRYPTOGRAPHY IN E-COMMERCE”**Dipti Parab**Chandrabhan Sharma College of Arts, Science & Commerce

ABSTRACT

E-commerce is a powerful tool for business transformation that allows companies to enhance their supply-chain operation, reach new markets, and improve services for customers as well as for providers. Implementing the E-commerce applications that provide these benefits may be impossible without a coherent, consistent approach to E-commerce security. E-commerce has presented a new way of doing transactions all over the world using internet. Organizations have changed their way of doing business from a traditional approach to embrace E-commerce processes. As individuals and businesses increase information sharing, a concern regarding the exchange of money securely and conveniently over the internet increases. Security is a necessity in an E-commerce transaction. The purpose of this paper is to explain the importance of E-commerce security, to understand cryptography and its types in detail and to find out how secure is any ecommerce transaction

Keywords: Ecommerce, security, cryptography

INTRODUCTION

Strong security is an urgent need for e-commerce development, as it allows the privacy and secure transactions of the financial data. Security must be part of the design of any ecommerce website. E-commerce refers to a wide range of online business activities for products and services. Security is the basic need to secure information on internet. E-commerce transaction between customer and merchant can include different aspects. The high degree of confidence which is needed in authenticity and privacy of such transactions can be difficult to maintain where they are exchanged over an untrusted public network such as the Internet. It also pertains to any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact. A security objective is the contribution to security that a system is intended to achieve. E-commerce is conducted on global network that is Internet which is untrusted. Therefore confidentiality is required during transaction and sending information should be kept secure against all type of threats. Security has emerged as an increasingly important issue in the development and success of an E-commerce organization. Gaining access to sensitive information and replay are some common threats that hackers impose to E-commerce systems.

OBJECTIVES

- To understand cryptography in detail
- To examine problems faced in ecommerce transaction
- To find out how secure is ecommerce transaction

LITERATURE REVIEW

Shazia Yasin , Khalid Haseeb , Rashid Jalal Qureshi conducted a study on “Cryptography Based E-Commerce Security: A Review” [IJSCI International Journal of Computer Science, Vol 9 Issue 2, No 1, March 2012] in which they conclude that Information security has become a very critical aspect of modern communication system. Privacy, integrity, confidentiality and non-repudiation are main security dimension to protect E-commerce transactions against threats. These objectives are achieved by Cryptography functions and techniques. When customers and merchants perform a transaction over Internet, the protection of information against security threats is a major issue. During sending the sensitive information, the data must be protected from unauthorized access to maintain its privacy and integrity. In this research paper different an approach has presented that increases the level of security dimensions using cryptographic techniques. Similar study was conducted by Jon C. Graff in his book Cryptography and Ecommerce [ISBN:0471405744] which guides on how to use cryptography to secure ecommerce transaction.

WHAT IS ECOMMERCE?

A type of business model, or segment of a larger business model, that enables a firm or individual to conduct business over an electronic network, typically the internet. Electronic commerce operates in all four of the major market segments: business to business, business to consumer, consumer to consumer and consumer to business. Almost any product or service can be offered via ecommerce, from books and music to financial services and plane tickets. Ecommerce has allowed firms to establish a market presence, or to enhance an

existing market position, by providing a cheaper and more efficient distribution chain for their products or services.

When we purchase a good or service online, we are participating in ecommerce. Some advantages of ecommerce for consumers are:

- Convenience - Ecommerce can take place 24 hours a day, seven days a week.
- Selection - Many stores offer a wider array of products online than they do in their brick-and-mortar counterparts. And stores that exist only online may offer consumers a selection of goods that they otherwise could not access.

SECURITY IN ECOMMERCE

Security is an essential part of any transaction that takes place over the internet. Customer will lose his/her faith in e-business if its security is compromised. Following are the essential requirements for safe e-payments/transactions

- Confidential – Information should not be accessible to unauthorized person. It should not be intercepted during transmission.
- Integrity – Information should not be altered during its transmission over the network.
- Authenticity – There should be a mechanism to authenticate user before giving him/her access to required information.
- Non-Repudiability – It is protection against denial of order or denial of payment. Once a sender sends a message, the sender should not be able to deny sending the message. Similarly the recipient of message should not be able to deny receipt.
- Encryption – Information should be encrypted and decrypted only by authorized user.
- Auditability – Data should be recorded in such a way that it can be audited for integrity requirements.

In simple terms

- If I transmit a credit card number over the internet – can people other than the recipient read it
- If I agree to pay Rs 500 for goods – can this information be captured and changed
- If I am buying something from company X – is it really company X

CRYPTOGRAPHY

As the Internet and other forms of electronic communication become more prevalent, electronic security is becoming increasingly important. Cryptography is the art of protecting information by transforming it (encrypting it) into an unreadable format, called cipher text. Only those who possess a secret key can decipher (or decrypt) the message into plain text. Encrypted messages can sometimes be broken by cryptanalysis, also called code breaking, although modern cryptography techniques are virtually unbreakable. Cryptography is used to protect e-mail messages, credit card information, and corporate data. One of the most popular cryptography systems used on the Internet is Pretty Good Privacy because it's effective and free.

MEASURES TO ENSURE SECURITY UNDER CRYPTOGRAPHY

1. Encryption

Encryption is the translation of data into a secret code. It is a very effective and practical way to safeguard the data being transmitted over the network. Sender of the information encrypts the data using a secret code and specified receiver only can decrypt the data using the same or different secret code. Encryption is the most effective way to achieve data security. To read an encrypted file, we must have access to a secret key or password that enables us to decrypt it. Unencrypted data is called plain text; encrypted data is referred to as cipher text.

For example

The Caesar Substitution Cipher

In this cipher each character is substituted by another. This technique is called as monoalphabetic cipher

Plain text – A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Cipher text - O P Q R S T U V W X Y Z A B C D E F G H I J K L M N

Thus using a Caesar Cipher “MISSION IMPOSIBLE” will become “AWGGWN WADCGGWPZS”

There are two basic techniques for encrypting information: symmetric encryption (also called secret key encryption) and asymmetric encryption (also called public key encryption.)

- a. Symmetric encryption - An encryption system in which the sender and receiver of a message share a single, common key that is used to encrypt and decrypt the message. A secret key, which can be a number, a word, or just a string of random letters, is applied to the text of a message to change the content in a particular way. Symmetric-key systems are simpler and faster, but their main drawback is that the two parties must somehow exchange the key in a secure way.
- b. Asymmetric encryption - Asymmetric cryptography or public-key cryptography is cryptography in which a pair of keys is used to encrypt and decrypt a message so that it arrives securely. Initially, a network user receives a public and private key pair from a certificate authority. Any other user who wants to send an encrypted message can get the intended recipient's public key from a public directory. They use this key to encrypt the message, and they send it to the recipient. When the recipient gets the message, they decrypt it with their private key, which no one else should have access to.

2. Digital Signature

Digital signature ensures the authenticity of the information. A digital signature is a e-signature authentic authenticated through encryption and password.

3. Security Certificates

Security certificate is unique digital id used to verify identity of an individual website or user.

SECURITY PROTOCOLS IN INTERNET

Following are the popular protocols used over the internet which ensures security of transactions made over the internet.

1. Secure Socket Layer (SSL)

It is the most commonly used protocol and is widely used across the industry. It meets following security requirements –

- Authentication
- Encryption
- Integrity
- Non-reputability

"https://" is to be used for HTTP urls with SSL, whereas "http://" is to be used for HTTP urls without SSL.

2. Secure Hypertext Transfer Protocol (SHTTP)

SHTTP extends the HTTP internet protocol with public key encryption, authentication and digital signature over the internet. Secure HTTP supports multiple security mechanism providing security to end users. SHTTP works by negotiating encryption scheme types used between client and server.

3. Secure Electronic Transaction

It is a secure protocol developed by MasterCard and Visa in collaboration. Thereoritically, it is the best security protocol. It has following components –

- Card Holder's Digital Wallet Software – Digital Wallet allows card holder to make secure purchases online via point and click interface.
- Merchant Software – This software helps merchants to communicate with potential customers and financial institutions in secure manner.
- Payment Gateway Server Software – Payment gateway provides automatic and standard payment process. It supports the process for merchant's certificate request.

- Certificate Authority Software – This software is used by financial institutions to issue digital certificates to card holders and merchants and to enable them to register their account agreements for secure electronic commerce.

CONCLUSION

The Internet is not known for its secure environment. In fact, the Internet is not safe for e-Commerce unless it involves using cryptography and making users aware of the concerns with e-Commerce. PC users need to know how to improve e-Commerce security. Both PGP and SSL encryption provide cryptography; they can form the basis of a secure e-Commerce infrastructure.

It is fair to say that when performing an e-Commerce transaction, people still tend to provide their credit information to just about anyone asking without first knowing for sure that the person or the Web site can be trusted. Trust in e-Commerce is indeed a real concern..

Doing E-Commerce involves risks (such as spoofing and eavesdropping) and possible threats (such as privacy). The use of cryptography in e-Commerce is the only way to ensure secure e-Commerce transactions and Web applications that contain a customer's personal information. If e-Commerce is handled by SSL, server security and digital certificates, for example, this will provide the authentication, privacy and data integrity through encryption needed to overcome threats associated with Internet-based transactions.

The importance of cryptography is that it can protect e-Commerce and reassure businesses and consumers that they are safe and secure from prying eyes (hackers who utilize the Web to steal information). The use of cryptography allows the integrity of e-Commerce transactions and can safeguard information.

Thinking realistically, providing cryptography is the only way to secure an e-Commerce environment for banking; and SSL encryption is necessary to handle payments--to establish a secure channel that can guarantee a customer's financial data remains secure.

THE FUTURE OF E-COMMERCE

Simply said, e-Commerce is the way of the future. It changes how people will conduct business, buy and sell things, and provide goods and services right from a PC. Knowing this, e-Commerce must have a secure environment so people and businesses alike needn't worry about outsiders (like hackers) stealing their identity and data to gain access to their credit cards or banking information.

If e-Commerce is going to continue to be a significant part of doing business online, then, it will require: security and trust. And, the use of cryptography and encryption is a must to protect the customers who give out their personal information online.

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EFFECT OF DOLLAR PRICE ON CRUDE OIL PRICE FLUCTUATION WITH REFERENCE TO INDIA

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ABSTRACT

India imports 90% of the crude oil for our day today usage. This study emphasizes relationship between Dollar Price (exchanged to INR) and Crude oil price (excluding all the taxes). In this study we will see the correlation between Dollar and Crude oil price and will try to check how they are related and further regression is calculated.

Oil is denominated in dollars, oil-price fluctuations in domestic currency may be quite different depending on the exchange-rate regime. It has a major effect on the overall economic growth of the country so in this paper we will try to see the relationship between Crude oil and Dollar price and any other factors which may affect the price of crude oil.

Keywords: Crude oil, Dollar rate, exchange rate.

INTRODUCTION

Crude oil is a liquid fuel source located underground. It is extracted through drilling. Oil is used for transportation, petroleum products, and plastics.

Between 50 and 97 percent of oil is hydrocarbons. Between 6 to 10 percent of it is nitrogen, oxygen, and sulfur. Less than 1 percent is metals such as copper, nickel, vanadium, and iron, according to OilPrice.com.

Oil is called a fossil fuel because of its origins. It was created when the remains of prehistoric algae and plankton fell to the bottom of the ocean or a lake. It combined with mud and then was covered by layers of sediment. The intense pressure heated the remains over millions of years. It first became a waxy substance called kerogen. It became liquid oil after more pressure and heat. That's why it's a nonrenewable resource. It would take millions of years for new oil to be created when this supply is gone.

The requirement of crude oil has been increasing at a rapid pace which has made India dependent on crude oil imports. The basic price of crude oil is always lesser the import taxes make it costlier for a common man. The price of petrol or other related products increases accordingly which results in increase in expenditure of a common man. This paper given an insight into the present state of crude oil imports and an attempt has been made to explain the importance of reducing the crude oil imports in order to improve the living standards of a common man.

India has undergone a paradigm shift owing to its competitive stand in the world. The Indian economy is on a robust growth trajectory and boasts of a stable annual growth rate, rising foreign exchange reserves and booming capital markets among others. The Economy of India is the seventh largest in the world by nominal GDP and the third-largest by purchasing power parity (PPP).

STATEMENT OF PROBLEM

The oil and gas sector is among the eight core industries in India and plays a major role in influencing decision making for all the other important sections of the economy. India's economic growth is closely related to energy demand, therefore, the need for oil and gas is projected to grow more, thereby making the sector quite conducive for investment.

As Indian economy follows fluctuating exchange rate and as India imports most of the products including crude oil in US Dollars it is important to see the relationship between Crude oil price and changes in Dollar price. Analysis of 10 year data (Dollar and crude oil) from 2009-2018 has been done.

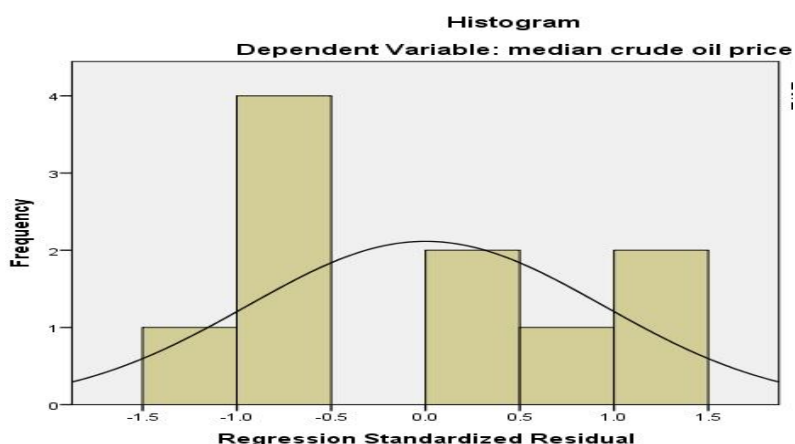
OBJECTIVES

1. To analyze the relationship between Crude oil and dollar price
2. To check the homogeneity of two variables.

LIMITATIONS

1. Time constraint
 2. Excessive dependence on secondary data
-

DATA ANALYSIS



Source: SPSS 23

Interpretation

Here we can see extreme values effecting normality of the data.

Regression

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.009 ^a	.000	-.125	1363.6012396
a. Predictors: (Constant), median dolar price				
b. Dependent Variable: median crude oil price				

Source: SPSS 23

Interpretation

When we see correlation of the data where Dolar is independent and crude oil price is dependent we can see very low correlation or we can say there is no correlation between two data.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1178.691	1	1178.691	.001	.981 ^b
	Residual	14875266.724	8	1859408.341		
	Total	14876445.415	9			

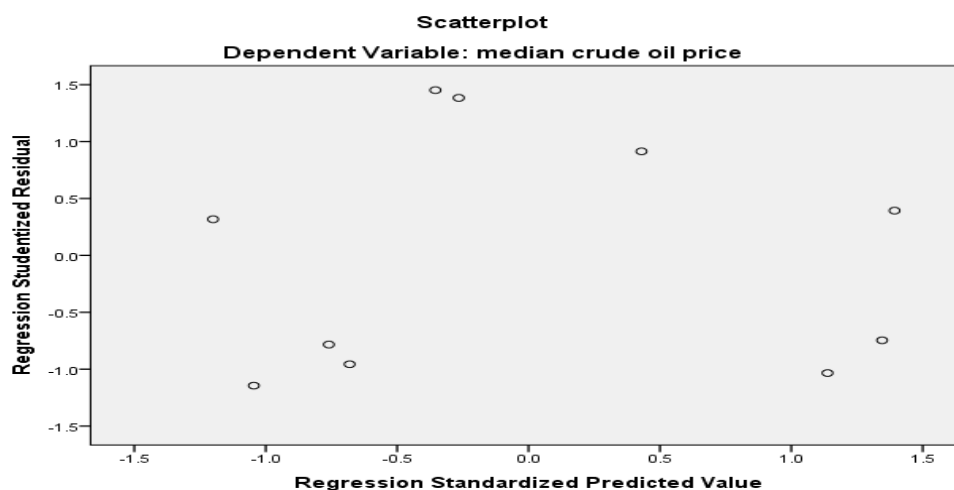
a. Dependent Variable: median crude oil price

b. Predictors: (Constant), median dolar price

Source: SPSS 23

Interpretation

Application of Regression also shows that as $p > 0.05$ the value is insignificant.



Source: SPSS 23

Interpretation

We can see heteroscedasticity of two variables.

CONCLUSION

After doing regression analysis of Crude oil and dollar price from 2009-2018 heteroscedasticity of the data can be seen and also it is insignificant.

It gives a clear idea that further analysis of the data can be conducted like co-integration of data and GHARCH and EGHARCH model, and also can be applied further to check the relationship. Also can be conclude that change in the price of crude oil doesn't only depend on dollar price it depends on various other factors such as inflation rate etc., which can be considered in further analysis.

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SMART ALERT: A 4-IN-1 DEVICE TO ASK FOR HELP IN EMERGENCY

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ABSTRACT

India is evolving into a Digital country in every aspect. Everything is faster right from fast food to home services. Technology is one of the reasons behind this. Unfortunately, in India food delivering services are provided under 30 minutes but Life Saving Services or we can say emergency services cannot be reached in time. We have also seen that ambulance takes 200-400 minutes to reach the location while the window is of 30 mins only. 'GPS' is one such technology which has helped us to track or find exact location with no time. When disaster strikes we don't really know how to react or what should be the best course of action. We are proposing a solution to this, assuming that 'Late Call' can be one of the reasons for delay in service. Proposed device will give an aid to the consumer to report the incident immediately on a click of button. Our solution will allow consumer or a victim to select the type of emergency service as & when the natural or man-made disaster happens.

Index Terms: GPS, emergency service, natural or man-made disaster.

I. EXISTING SYSTEM

Current System to Alert Emergency Service Provider is mainly by calling -Calling emergency services is quite a troublesome work with the numbers almost same it might also be quite confusing to call the exact one which is needed as for ambulance its 102 and for fire department its 101 so it can be quite confusing which number is for what service if the number is not saved in the phone. Most of the people don't even know these numbers.

a) No Knowledge of the surrounding may lead to Confusion and eventually delay in service.

b) Apps to Alert your contacts but not the emergency providers.

- Advantages of the current system:

- Talking on phone with the emergency service provider the person in need can get advice on what to do exactly in that situation and when on call exact situation can be told to the service providers so that they can take appropriate steps to help.

- Disadvantages:

- Time consuming
- Lack of information may lead to confusion and delay.

II. INTRODUCTION

In today's system there is no such technology which will enable you to request for help from the authorities this quickly and accurately. As people in tense situations tend to freeze as they don't really know what to do in such situations.

From the beginning of 2010 to the end of 2015, the Mumbai-Pune Expressway witnessed 4,234 accidents and 1,323 deaths. On the highways (Mumbai-Pune) in a study it was shown that 536 accidents took place just in Maharashtra in 2016. Maybe there was a slim chance they could have survived if accident was reported early and the service providers had reached early.

More than 18,000 cases of stalking were registered in last three years in the country; the Lok Sabha was informed today. According to the statistics on crime against women tabled by Minister of State for Home, Hansraj Ahir, stalking cases showed a consistent rise in last three years. As per the data, 7,132 cases of stalking were registered in 2016, 6,266 cases in 2015 and 4,699 cases in 2014. Mr Ahir said as many as 8,620 people were arrested for cases related to stalking and 481 convicted for the same in 2016.

In 2015, a total of 6,694 people were arrested and 473 were convicted, while in 2014, as many as 5,439 people were arrested and 262 were convicted for stalking-related crimes,

According to the data, abduction and attempt to abduction cases have also seen a rise in the past few years. In 2014, there were about 57,000 such cases, while in 2015, their number stood at 64,000, it added

In this purposed system we will use the (Arduino Nano, GPS, GSM) which will track the location of the device and by using GSM Module will send the details of the device and location via text Message as well as same will be updated on a website.

This system provides the three buttons which are for Police, Ambulance, and Fire Brigade. Once any of the button is pressed thrice an LED will glow up and the device will send an alert to a desired service via text message as well as same will be updated on website and also on LCD it will show the alert and location of the one in need. By this system people will save their life and time, as people tend to panic they could just use the device to ask for help.

III. WORKING

Emergency Services is a device which enables a person to call for help accurately and in click of button. It has a GPS Module it locates location of the device and sends it to the desired service so it is easier for them to navigate. As soon as a button is pressed an alert and location will be sent to the desired service via text message as well as it will be updated on their website. This will help people to easily call for help even in unknown locations as GPS module will take care of navigation.

The aim of this project is to ALERT EMERGENCY SERVICE PROVIDERS.

- People can easily press button to call help.
- Saves human struggle to run here and there.
- Location will be sent via message and will be updated on website of authorities

We will keep a panel of 3 Switches for as shown in the diagram:

1. Police
2. Ambulance
3. Fire Brigade
4. Finger Print Registration



III. ADVANTAGES

Following are the advantages of proposed device:

1. Security: Finger Print module is included so no one else can misuse or impersonate you. As a pin unlock will be time consuming a fingerprint is the best option for Security.
2. Fast: Alerting System is fast as a text of details is sent via SMS to the required Service.
3. Accurate Information: GPS module is included to provide accurate information. As a person with now knowledge of surrounding area will not know what to tell and eventually lead in delay with in the service.
4. Portable: The device is very small making it very compact and portable.
5. Easy to Use: Device has only 3 switches to press making it very easy to understand and use

IV. CONCLUSION

It has observed that the main cause of the delay of emergency services is Miscommunication. So emergency services device will help a person in need to alert the emergency service providers and provide them with the information which is needed to help and provide service such as location. This will lead to Reduced Ambulance window time. As this device also keeps updating location every 5 minutes. India is digitalizing in every aspect. This is a step towards digitalizing in this sector. Also the Scope of project is vast it can also be used as a tracker for kids as kids sometimes get lost in park and don't know what to do. It also could be linked to Facebook's Crisis Awareness system. Location of the device can be linked and updated there with some changes. Device can be used by Special ops and Military People

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E-WALLET THE NEW CASHLESS INDIA**Sohil Altaf Pirani¹ and Mohammed Najeeb Chawre²**Research Scholar¹, BAMU UniversityAssistant Professor², A. E. Kalsekar College, Mumbai

ABSTRACT

Curbing the problem of black money and making india cashless is a key for economic growth of our country. The purpose of this study is to determine factors that influence usage of e-wallet. Using spearman's Correlation this study Analyzed factorts that influence Usage of e-wallet. Trust/confidentiality/privacy ,Risk of security etc was found to play the greatest role in influencing usage of e-wallet.

Keywords: E-Wallet, Digital Wallet, Online Shopping

INTRODUCTION

As Per Economics Times, E-Wallet Is A Type Of Electronic Card Which Is Used For Transactions Made Online Through A Computer Or A Smartphone. Its Utility

Is Same As A Credit Or Debit Card. An E-Wallet Needs To Be Linked With The Individual's Bank Account To Make Payments. E-Wallet Is A Type Of Pre-Paid Account In Which A User Can Store His/Her Money For Any Future Online Transaction. An E-Wallet Is Protected With A Password. With The Help Of An E-Wallet, One Can Make Payments For Groceries, Online Purchases, And Flight Tickets, Among Others. E-Wallet Is Like Your Physical Wallet In A Digital World. It's A Secure Place That Contains Your Money In One Or More Currencies. You Can Fund Your E-Wallet And Use It Whenever You Want To Buy Goods Or Services. It Is Like A Prepaid Card.

Some Examples Of E-Wallet Companies Include Paytm, Momoe, Payumoney, Mobikwik, Citrus, State Bank Buddy, Citi Masterpass, And Icici Pockets Etc.

REVIEW OF LITERATURE

- Neetu Kumari (2017) In Her Research Paper On Cashless Payment: A Behaviourial Change To Economic Growth Explains The Hurdles Coming In The Way Of Making An Economy Cashless. The Study Examines The Effect Of Adopting Cashless Payment On Economic Growth And Development Of The Developing Countries.
- Chung-Hoon Park(2013)-In His Research Paper Identifying Key Factors Affecting Consumer Purchase Behavior In An Online Shopping Context Indicates That Information Quality,User Interface Quality And Security Perception Affects The Consumer Online Behaviour.
- Aparna, R. R(2015) – In Her Research Paper Overview Of Digital Wallets In India Reviews On Various Types Of Digital Wallets And Its Usage In India. A Complete Comparison Analysis Of Various Types Of Digital Wallets Was Performed. An Online Survey Was Conducted And The Results Were Presented In The Report Form In This Paper. This Paper Provides A Complete Overview, Architecture And Usage Views Of Digital Wallets In India.

OBJECTIVES OF THE STUDY

1. To Identify Consumer's Perception Towards Ewallet.
2. To Find Out Various Factors That Influences The Buying Behavior Of Consumer Through E-Wallet.
3. To Study Impact Of E-Wallet On Offline Market.
4. To Study Future Growth Of E-Wallet In India.
5. To Find Out E-Wallet On Economic Growth Of India.

HYPOTHESIS**Hypothesis 1**

Ho: There Is No Relationship Between Awareness About Offer/Promocode/Cashback And Preference Of Shopping Through E-Wallet.

H1: There Is Relationship Between Awareness About Offer/Promocode/Cashback And Preference Of Shopping Through E-Wallet.

Hypothesis 2

H0: There Is No Association Between Factors Like privacy of account information, security of hacking, E-wallet helps to curb black money & Usage of E-wallet.

H1: There Is Association Between Factors Like privacy of account information, security of hacking, E-wallet helps to curb black money & Usage of E-wallet.

RESEARCH METHODOLOGY

Research Design: A Research Design Is The Plan For Collection And Analysis Of Data In A Manner That Aims To Achieve Research Purpose With The Economy In Procedure. It Constitutes Blue Print For The Collection, Measurement And Analysis Of Data. The Present Study Uses Exploratory And Descriptive Approach.

- Nature Of Study: The Present Research Study Is Quantitative And Qualitative In Nature.
- Research Plan For Data Collection: For The Present Study Information Has Been Collected From Both Primary Source And Secondary Source.
- Primary Source: The Following Plan Will Be Adopted To Collect Primary Data.
- Research Technique: Data has been collected through online questionnaire.

Secondary Source:

- Books, Journals And Magazines
- Sampling Plan

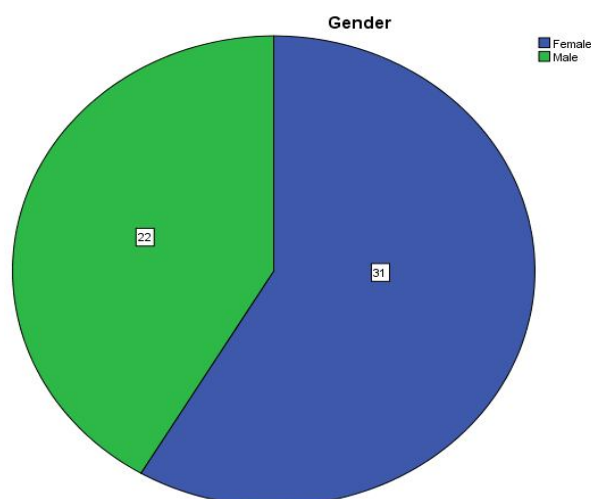
Sampling Element: The Sampling Element Consist Of Individual

- Sample Size:
 - No. Of Individual- 53
- Sampling Method: For The Present Study The Researcher Will Select Snowball Sampling And Convenience Sampling.
- Place Of Study: Mumbai City
- Statistical Technique: This Research Study Uses The Spss (Statistical Package For Social Science)

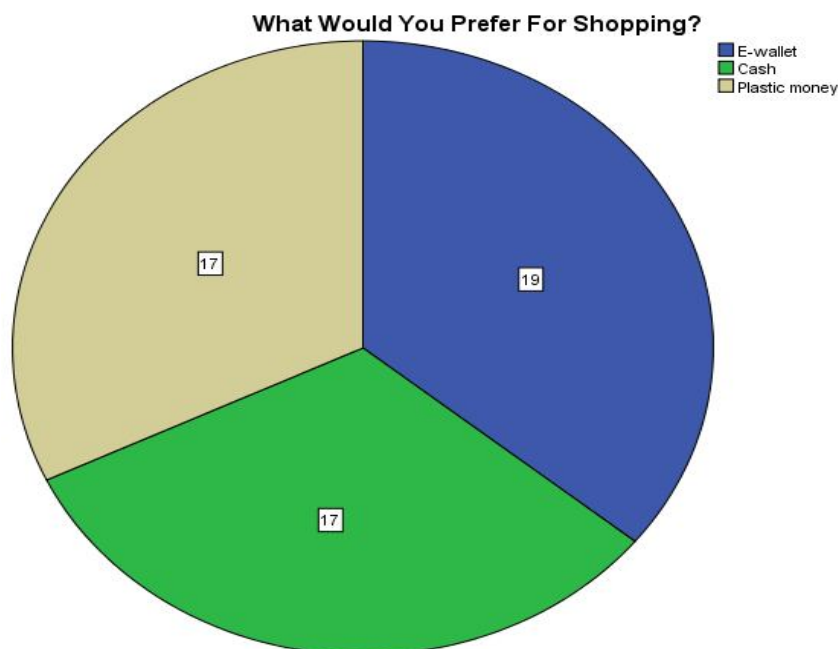
DATA COLLECTION AND RESPONDENT PROFILE

Data is collected from pre schedule questionnaire form. The questionnaire consists of 17 questions. The data collections and analysis has done in an iterative process it consists of 31 females and 22 males.

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	31	58.5	58.5	58.5
	Male	22	41.5	41.5	100.0
	Total	53	100.0	100.0	



What Would You Prefer For Shopping?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	E-wallet	19	35.8	35.8	35.8
	Cash	17	32.1	32.1	67.9
	Plastic money	17	32.1	32.1	100.0
	Total	53	100.0	100.0	



Reliability Statistics	
Cronbach's Alpha	N of Items
.864	6

Cronbach's Alpha 0.864 shows that there is a great internal consistency and the questionnaire is reliable.

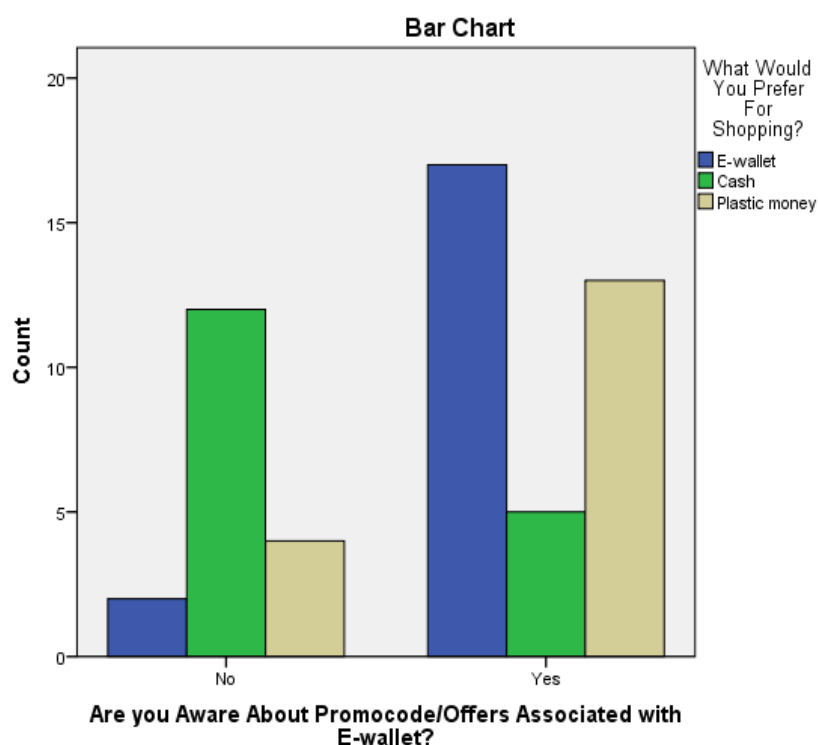
SPEARMANS RANK CORRELATION TECHNIQUE						
			How much do you agree with the statement " I USE E-WALLET (paytm,phonepe) FOR MAXIMUM TRANSACTION N"	Use of e-wallet will help to curb black money and will help in economic growth of the country	E-wallet is highly secure which conceals a consumer banking and private information	Chances of HACKING in E-wallet IS NOT EASY AS digital wallets are secure
Spearman's rho	How much do you agree with the statement " I USE E-WALLET (paytm,phonepe) FOR MAXIMUM TRANSACTION"	Correlation Coefficient	1.000	.396**	.649**	.509**
		Sig. (2-tailed)	.	.003	.000	.000
		N	53	53	53	53
	Use of e-wallet will help to curb black money and will help in economic growth of the country	Correlation Coefficient	.396**	1.000	.507**	.608**
		Sig. (2-tailed)	.003	.	.000	.000
		N	53	53	53	53

	E-wallet is highly secure which conceals a consumer banking and private information	Correlation Coefficient	.649**	.507**	1.000	.743**
		Sig. (2-tailed)	.000	.000	.	.000
		N	53	53	53	53
	Chances of HACKING in E-wallet IS NOT EASY AS digital wallets are secure	Correlation Coefficient	.509**	.608**	.743**	1.000
		Sig. (2-tailed)	.000	.000	.000	.
		N	53	53	53	53

Spearman's rank correlation shows that there is a positive relationship between trust/confidentiality, risk of security, belief that e-wallet will curb black money and help in economic development & usage of e-wallet.

DESCRIPTIVE STATISTICS OF ASSOCIATION BETWEEN AWARENESS ABOUT PROMOCODE/CASHBACK OFFERS & PREFERENCE OF SHOPPING					
Count					
		What Would You Prefer For Shopping?			Total
		E-wallet	Cash	Plastic money	
Are you Aware About Promocode/Offers Associated with E-wallet?	No	2	12	4	18
	Yes	17	5	13	35
Total		19	17	17	53

Chi-Square Tests			
	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.646 ^a	2	.000
Likelihood Ratio	15.989	2	.000
N of Valid Cases	53		



P (value) 0.000 < Level of significance 0.050 Therefore H_0 is rejected and there is significant relationship between awareness about promocode/cashback offer and usage of e-wallet.

CONCLUSION

Research Is A Valuable Tool For Development Of Any Field. There Is An Increase Trend In Awareness And Usage Of E-Wallet In The 21st Century. There Are Many Factors

That Influence Usage Of E-Wallet. Present Study Contributes Towards How Age Factor, Region

Factor, Educational Qualification, Offers, Promocode Affects The Consumer's Buying Behavior Through Ewallet. Present Studies Also Show That Other Factors Like Satisfaction Level With The Delivery Of Product, Reliability, Refund Policy, Charges Associated With

Usage Of E-Wallet, Confidentiality Of Banking Information, Usage Of Smartphones Etc Affects The Consumer Buying Behaviour Through E-Wallet. Mumbai City Is Selected In This Study. Mumbai Is The Financial Capital Of The Country So It Is Something Inspiring To Find Out Consumers Behaviour On E-Wallet Of Mumbai City. Study Has Also Given Impact Of E-Wallet On Economic Growth And Development Of Our Country. Present Study Also Throws Light On The Future Growth Of E-Wallet.

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HR TRENDS IN GLOBALIZATION

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ABSTRACT

The term Globalization has invaded the mind of every successful businessman and the concept of Global Village is a common issue in the modern business world. Globalization has caused blurred international boundaries. Organizations can now recruit employees from all around the world and subsequently are able to sell products and services across geographic and cultural boundaries. The effects of globalization on HR have initiated a number of trends in the workplace. This paper attempts to focus on how globalization affects global human resource management with business organization going global. The researcher has attempted to cover various changes taken place in HR over a period of time and to see the benefits derived from it.

Keywords: Globalization, Human Resource, Trends, Economy, Companies.

1. INTRODUCTION

With better means of Communication, Breakthrough technologies and dismantling of economic and social barriers, the world is becoming borderless and the countries are fast integrating into a truly global economy. Also, we can say with globalization, as the world changes, so does the workplace. Managers of the 21st Century operate in environment quite unlike those they first entered, and must generally update their skills to meet the challenges of a dynamic global market and a more diverse workforce. In this scenario the role of an HR manager has assumed much greater significance as he is expected to create conditions in an organization where the employees from diverse background, culture and nationality could work together with ease and flourish. In other words we can say that the Human Resource Management is undergoing a massive transformation that will change career path in as yet uncertain ways. Employees are placing the greater emphasis on business acumen and are automating and outsourcing many administrative functions, which will force many HR professionals to demonstrate new skills and compete for new, sometimes unfamiliar roles.

The challenge to a business is balancing the human resource management with cultural aspects present in a given nation. The human resource has to ensure that they overcome the barriers that may arise with the growth of the organization in new geographical boundaries; these may include differences in culture. The human resource management has to ensure that they achieve the strategy of the organization by having the right people undertaking important responsibilities. In addition, human resource management has to ensure that staffs are well trained to enable them to better understand the organization in all aspects. An organization to reap from the global business environment cannot have to learn how to venture into new markets.

2. OBJECTIVES OF THE STUDY

- 1) To understand the existing HRM trends.
- 2) To study the impact of Global trends in HR.
- 3) To provide key aspects to the researchers and stakeholders through the findings of the study.

3. IMPACT OF GLOBAL TRENDS ON HUMAN RESOURCES

Human resources -- the management of an organization's policies and procedures relating to its employees -- has historically been seen as a somewhat insular task. But with the rise of globalization and mass communication, the world is becoming a smaller place. Businesses, even small ones, are now connected across cultural and geographic boundaries. As a result, global trends are affecting human resources management within organizations of all sizes.

1. **Training and Professional Development:** One of the emerging trends in global human resources management is diversity training and cross-cultural professional development. This area of HR includes all types of learning opportunities and further education programs that an organization offers to its employees, including sponsoring formal university coursework, opportunities to attend conferences and networking events and on-the-job training seminars. The purpose of these programs is to encourage employees to become more diverse both in their skill set (for example, by learning a new language) and in their core competencies (the ability to understand how business is done in a foreign country, for instance).
2. **Global Recruitment:** Organizations are also realizing that the best matches for the jobs within the company may not necessarily be people living locally. A push toward global recruitment is replacing the traditional

model of employing from within the community or promoting from within the organization. Global recruitment is focused on getting the best person in the available position, no matter if that person lives locally or 5,000 miles away. HR teams adopting this global recruitment trend value the diversity that non-native or non-local employees can bring to an organization, and they seek to bring those people on board even if there's an added cost in terms of applying for visas or relocating families.

3. **Cross-Border Legal Compliance:** The effects of globalization on HR have also brought attention to the importance of cross-border legal compliance. Companies now have the potential to sell products and services in many different markets through use of the Internet and postal service. Doing so brings with it added tax, customs and border security concerns to the human resources division. Selling products overseas may involve the need to apply for additional permits or to pay tax within a different jurisdiction. Employing workers in a foreign country will mean that the company has to follow the laws concerning labor and compensation in that location. All of these cross-border legal concerns are important for the organization to grasp, because there may be serious consequences attached to failure to follow the law.
4. **Benefits and Compensation:** A final global trend affecting human resources is within the area of benefits and compensation. While federal laws in the United States mandate the amount of vacation and sick time employees are allowed, many foreign countries, particularly in Europe, have much less-stringent rules and grant their employees much more holiday and family leave time than do traditional American companies. As a result, some globalized companies are embracing these progressive HR policies on benefits and compensation and have begun offering things like paternity leave, extended vacation time and flexible working hours to all of their employees, including the ones based in the United States.
5. **Diversity:** Diversity has become commonplace in U.S. workplaces. With a global company, ethnic, racial, gender and age diversity is even greater. Thus, you have to create a culture that promotes equality and fairness in hiring and promotion opportunities. Global companies often have HR managers in each country that oversee diversity training and management. Again, virtual teams and cross-cultural work groups are used to create a culture that leverages benefits of diversity versus struggling with conflicts.
6. **Localization:** Even while trying to create a global culture, HR professionals often have to emphasize localization in each country. This correlates with strategies used by companies as they enter foreign markets and try to build good rapport with local communities. This means having strong hiring and training processes at national and local levels and compensation and motivation systems that fit well with each country of operation.

4. GLOBAL TRENDS IN HR 2018-19

Here are ten technology trends that the Human Resources world will experience in 2018-19.

1. HR Innovation

Innovation within the Human Resources industry can be seen with HR professionals setting the pace with new performance management models, new learning methods, new ways to reduce bias, and new approaches to recruit and train people.

2. Surge of People Analytics

With its ability to produce insights into the workforce, help companies retain talents and spot employees who are likely to leave, the use of People Analytics is becoming prevalent in 2018. Data provided allows HR professionals to have a deep understanding of employee's needs, concerns and so on.

3. Changes in Talent Sourcing

The norm is shifting from full time employment trends to a blend of increasingly hiring remote workers, workers on flexible schedule, part time workers and consultants. This type of approach is changing the way HR professionals recruit candidates with technology leading the charge.

4. Popularity of Wellness Apps

With the understanding that employees must be emotionally and physically well in order to perform at their maximum levels, HR managers are taking the steps to ensure that workers are monitored and empowered to take care of themselves. Health and wellness apps are rapidly being adopted to measure individual performance, activity and fitness levels, with great improvements in engagement, health, and mental wellbeing.

5. Increased Migration to the Cloud

With cloud-based HRMS, payroll, and talent management services, as well as financials and other ERP solutions offerings in the cloud, the question is no longer "if" a company will move to the cloud, but rather "when" and "how."

6. Rise of Intelligent Self-Service Tools

There is a fast-growing shift towards more data-driven, intelligent digital organizations and more self-sufficient/analytical employees. This is increasing the need for tools that integrate case management, document management, employee communications, and help-desk interactions. Self-service and employee experience platforms are the backbone of employee service centers and are simplifying training, expense reporting, time tracking, and almost every other HR function.

7. New Breed of Corporate Learning Tools

Companies are modernizing learning and development to be more democratic, self-directed and appealing to younger workers by making greater use of video and other new breed of micro-learning platforms including virtual reality, augmented reality, experience platforms, modernized learning management systems, and AI-based systems for learning and training.

8. Smarter Recruitment

The market for recruitment tools is thriving with innovation, as HR needs tools to help find people with the right capabilities and learning skills, not just technical or cognitive abilities. High volume recruitment is being automated, skilled job hiring is being transformed by open sourcing tools, recruitment management systems, and improved assessments.

9. Blockchain

Also called distributed ledger technology, blockchain is basically a database that keeps an ever-growing list of records. It allows digital information to be distributed but not copied. In HR, potential uses for blockchain include digital process management, solve certification issues, increase transparency, improve overseas electronic payroll, automate routine and data-heavy processes, cybersecurity and fraud prevention.

10. Intelligent Apps and Analytics

Machine learning HR applications is changing the nature of work and the structure of the workplace. Apps for attracting talent, worker performance analysis, applicant tracking and assessment, enterprise management, internal management, etc. are enhancing better decision making with the use of machines as a tool and collaborator.

5. HR IN INDIA: A FAST-GROWING MARKET FOCUSED ON PEOPLE DEVELOPMENT AND CULTURE.

1. **India is the Fastest Growing Economy in the World.** So Talent Demand is high: India's economy is like a rocket ship. Its GDP is now growing at 7.4% and is expected to grow faster in 2019, driven by an increasing focus on education, infrastructure, and capital formation. Mumbai and Delhi and everywhere you go there is construction, growth, and economic vitality. The country is dominated by tens of thousands of small businesses and merchants, and a set of globally diversified companies that provide infrastructure, energy, raw materials, transportation, and other major goods and services. While the country's economy is only \$2.3 trillion in size (the US economy is \$18.6 trillion and China is \$11.2 trillion), the growth rate is staggering. As you can see from this chart India is almost twice the GDP of Russia and will soon be a bigger economy than the UK. With such a fast-growing economy, the country suffers from many of the same challenges we have here. Research indicates the country's unemployment rate is 3.5%, which is astoundingly low – but this is misleading. While there are many jobs for skilled, educated workers but there are places where the unskilled workers cannot find jobs. Like the US, small cities and rural counties have much lower rates of work, so there are challenges in upward mobility. That said, if you look at the Gini index (index of income inequality, with higher numbers as bad), India's Gini index is around 35, while the US's Gini index is around 42. So while India has plenty of issues with poverty, we have an even more uneven distribution of wealth here in the United States. Many of the professionals change jobs very frequently, so there is a big focus on employee development, career management, and the need to revitalize the work environment to create well-being, growth, and management skills.
2. **HR Leaders Focus on Development:** Unlike the United States, where L&D budgets are often fleeting and hard to maintain, in India the focus on upskilling and development is pervasive. Every client I met with is interested in improving their learning culture, looking for a lower cost way to build skills, and wants new tools to facilitate career growth. Many companies are highly regarded outsourcing and call center operator. This company, which is one of the best-run outsourcers in India, has an entire portal focused on development and career mobility and they expect their employees to develop themselves every year. The performance management process is heavily weighted toward development, largely because the company is going through massive amounts of automation and jobs are changing quickly. They are one of the most highly rated

employers among their peers in Glassdoor. As I met with one of India's fastest growing telecommunications companies, again the topic focused on skills. Few companies are hiring people as fast as they can, but they cannot train them fast enough. They, like others, are experimenting with various forms of mentorship and mobile learning solutions, and now hold their managers responsible for continuous development. India's largest electric utilities and energy companies focus not only on skills development but also a pioneering approach: they partner with universities to develop leaders and technical skills; they have built their own Virtual Reality based learning programs to simulate plant experiences; and they reward and list employees for their focus on skills development.

3. **HR Technology in India Is Different:** HR technology budgets in India are limited, so vendors like Workday, Oracle, and SAP are less popular. While many of the major vendors are all there (Pymetrics, LinkedIn, Facebook, Skillsoft, Degreed, EdCast, ADP, SuccessFactors, Indeed), there are India-specific HR platform providers like PeopleStrong and Darwinbox and Keka who provide end-to-end cloud-based HRM locally. And many companies build their own software. I know that sounds odd, but engineering expertise is inexpensive, so is still a lot of homegrown software. That said, the local, India-led, HR technology market is heating up. Several vendors, for example, have innovative new ways of measuring employee engagement, using AI and analytics to correlate many forms of data (HONO and Hyphen). Another has developed a voice recognition system that understands language, age, and stress among callers – and is now using it to improve HR self-service. A third is focused on managing CSR and volunteer activities (Goodera). There are quite a few vendors selling training and various forms of leadership development (SimpliLearn) and quite a few next-gen recruitment tools (TalView, Impress.ai, Talent Recruit). There are more intelligent chat bots (Senseforth and Chatteron) and lots of tools for perks (Pine Labs, Happay) and other rewards providers. In India AI and software expertise is fairly easy to find, so many of the innovators here start with AI-driven solutions. I saw the very first chat-driven HCM system in India two years ago in fact. And there's no question some of these vendors will thrive – engineers in India can become tremendous leaders. Remember that the CEOs of Microsoft (Satya Nadella) and Google (Sundar Pichai) are both Indian, so there is plenty of ambition, intelligence, and education in the country.
4. **Culture Is Critical and Highly Valued:** In the United States we talk about organizational culture as a feature. It's something we worry about when times get tough, but it's often a topic put aside when the market is growing fast. In India, I would venture to say, organizational culture is critical. The country is crowded and developing fast, so people talk a lot about the culture of their employer. Many company were like to work for, their reputation for employee development, and how well their CEO is regarded. It's a common discussion and easily comes up in conversation, because culture really matters. India has a warm and caring culture. It's crowded and often underdeveloped, but people are respectful, polite, and kind. Business leaders feel a responsibility for developing the country, and this creates a focus on employees.

The lesson here is simple: in a fast growing economy a focus on culture and people pays off. Companies like Taj Hotel Group, Aditya Birla Group, Adani Group, Reliance, Lupin, Dr. Reddy's, Godrej, Genpact, and many others are mission-driven organizations focused on helping the Indian economy thrive. Their investment in culture, employee development, and careers is real, and something we can all learn from.

6. CONCLUSION

From the above discussion we can conclude the following

1. International organizations use consistent HR practices to help develop a common corporate culture and to improve the effectiveness of the HR function.
2. Domestic organizations are creating consistent HR practices to improve both the effectiveness and the efficiency of the HR function.
3. Organizations Create global policies/processes for data management, performance management, compensation, education, and development.
4. Selection practices vary greatly across locations in international organizations. Selection practices that vary the most include:
 - Assessments (role plays and simulations).
 - Testing for selection purposes.
 - Internet advertising (recruiting).

5. Applying knowledge to professional staff and part-time and full-time, Use of performance management and coaching role for the staff to achieve set targets, Management processes and information activities, the way that add value, Having a clear strategic planning process to align HR investments with business objectives and Aligned with building your organization's business strategy

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2015	2016	2017	2018
No more performance reviews +	HR embraces agile ++	The consumerization of HR +	From Please the Boss to Employee intimacy +
The org chart is fading away ?	Back to the office	Performance consulting ?	Renewed focus on productivity ?
Privacy seems to be less of an issue +	HR goes soft on performance ratings +	From individuals to teams to networks of teams ~	Power to the People +
The sharing economy is entering organizational life ?	Individualization ~	Man-machine collaboration ++	The end of fixed jobs ~
Mobile/mobile/mobile ++	Talent everywhere ~	Algorithm aversion ~	Learning in real time ~
Real time succession management ?	Artificial intelligence ++	HR Operations +	Hospitality and service +
Robots in the boardroom -	Selecting and selecting the best	Data ownership ~	Shrinking HR teams ++
The end of PowerPoint --	Moving away from big systems ?	The end of open space +	Letting go (or: go with the flow) -
Community management as a recruitment tool ++	Reward: less external benchmarking ?	The battle of the apps +	
	Maturing of people analytics ++		
	Keep it simple		

JOURNALISM IN THE DIGITAL AGE: TRENDS AND TECHNOLOGY

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ABSTRACT

Newspapers and Print Journalism in the digital age have changed dramatically from their roots. Once newspaper was an exclusive source of news for people around the world, today newspapers are facing greater competition from more places than ever before. At the same time, there is growing concern that journalism on the internet is failing to uphold the basic values/ principles or canons of journalism and that democracy is increasingly at risk due to the lack of quality and authentic information. Journalism or Media is considered as the fourth pillar of democracy and was regarded as an important force in government, so vital to the functioning of a democracy that it has been portrayed as an integral component of democracy itself. The news media provide a forum for debates to take place, as well as moderating and curating the arguments presented by all sides. News media also foster a sense of community between groups that might otherwise see themselves as distinct. Media have presented relatively local events, such as natural disasters, as matters of national and even international concern.

INTRODUCTION

The newspaper business has been in decline for the past twenty years. Almost every single source of revenue, from newsstand and subscription sales to classified and retail advertising has fallen dramatically. This has led to the bankrupt reorganizations of a number of very prominent national newspapers. The forces driving these trends are complex, but the basic cause is that the newspaper business is organized around a model that was extremely profitable when newspapers were the only medium to receive news, but extremely vulnerable in the face of competition. The newspaper business is in decline, but there is now far more news available to interested parties than there has been at any time in our nation's history. The Internet has enabled citizen journalism to an extent that was never before thought possible. Journalism is a very dynamic profession. With developments in science and Technology, Journalism has changed from what it used to be. News gathering, reporting and distribution now take different forms. While this is a welcome development, the emerging trends equally pose some challenges to the profession. News companies are worried because the average time that a user of a news website spends any given day is only a fifth of what they might spend reading the paper. However, this is because consumers of news no longer pick just one paper, instead they hop around to wherever they find information they want or journalists they like. Given the possibility for access to news from the workplace and mobile devices, consumers may actually spend more time reading the news today than they did ten years ago. Given the superiority of ad targeting on the Internet compared to physical space, the overall ad revenues from news might go up, though likely much of the benefit will go to reporters instead of the papers.

For these reasons we do not need to fear too much the journalism will disappear. The form will change radically over the next few years. However, the result will likely be far more content, available to far more people.

OBJECTIVES OF THE STUDY

- a) To understand the news dissemination tools in the digital age
- b) To recognise the contribution of new media

Research Methodology

This paper is based on secondary data and references. The data has been collected from various journals, newspaper articles, online articles, websites, research work of renowned research scholars and academicians.

Trends in Journalism

The digitalization of news media has enabled changes in news production as well as in news consumption, both on the level of individual practices and of organizational structures. Today, journalistic content is produced, used and distributed via multiple platforms, and social media increasingly complement traditional mass media while expanding the communicative options between journalists and their audiences. One consequence is an increased connectivity between journalists and audiences as well as an omnipresence of audience feedback: News organizations must now manage an increasing amount of audience-led comments, for example, in forums, comment sections and through user interaction on their social media channels which fundamentally changes how today's journalists and their audiences perceive, use and manage these kinds of interactions. With the dawn of social media and its widespread dissemination, newsrooms became increasingly confronted with a continued differentiation, vast connectivity and the growing omnipresence of

media affordances provided by digital information and communication technology (ICT). Journalistic roles were confronted with differentiated tasks and practices. Undertaking several efforts to adapt to this transforming media environment, the journalistic profession has experienced a rapid diversification with the implementation of various new professional roles that add to the existing range of tasks in integrated newsrooms.

Corporatization

In the early history of print media in our country, the newspapers were largely owned by middle class or upper middle class intellectuals. Such owners did not publish newspapers primarily for making profits like a businessman. The publication was made in the spirit of ushering in social reforms and gaining independence of the country. The circulation of the newspapers was also quite moderate in those days. Today's media particularly big national level newspapers are mostly owned by the corporate houses. These newspapers barring a few are running the newspapers with an aim to derive more and more profits like commercial enterprises. More and more revenue from corporate houses and commercial ventures being targeted, news contents and articles have orientation suiting corporate houses and business community.

Monopoly Trends

The emergence of big media houses and corporatizations of media is heading fast towards monopoly in the media. This is a matter of concern. The small and medium newspapers particularly regional newspapers with low circulation and operating in remote rural areas are facing acute financial crisis and their survival is at stake because of rapid spreading of wings by big newspapers covering large number of cities and districts. The elimination of the rivals at any cost, through competition and acquisition is the age old device.

Media and Technology

The Indian press is going through transformation because of changes occurring in today's polity of the country on account of rapid socio-economic strides. Competition alongwith Liberalisation and Globalisation from the electronic media are impelling the print media to adapt new technologies, with more professional outlook and sensitivity to the market forces. The newspapers today are compelled to delicately balance the twin challenges namely how best they can adapt to and gain from digital distribution and advertising revenue; and how to meet the role of fourth estate. Instead of making newspaper rich in news contents and addressing serious issues for better governance of the country and improve socio-economic disparities, the media is indulging in trivialisatation, sensationalism, yellow journalism and tainted corporate communication.

The changes in technology and marketplace are shaping the growth and development of Print India. In India, almost all newspapers are accessible through the internet and provide up-to-date news and information not only relating to India but other parts of the globe as well. Today's readers are not satisfied with traditional news contents but something more giving insight to what is happening all around. Unfortunately, in their anxiety to get more or more readers and particularly more and more advertisers and corporate sector as client, the print media is by and large turning to be a commercial enterprise and the newspaper as a commodity. Journalism in today's media scenario appears more as a profession than a mission.

Rapid Growth of Journalism Institutes

Another consequence of Media boom is spurt in establishment of Journalism Institutes. The demand for education in journalism in universities and private institutions have been catered to, by introduction of degree both at undergraduate and post graduate level and diploma courses and certificates in connected skills and disciplines pertaining to journalism. With the boom in mass communication, new specialised courses have been introduced. More bright, talented and educated young men and women are now opting for journalism as career. With money in the job and the tremendous power that journalists have come to exert, particularly in political, financial and investigative journalism, the profession is attracting large number of young aspirants. The prospect of eventually joining the electronic media is an added attraction. It will be pertinent to mention here that many of the institutes imparting education in various specialties of mass communication and journalism lack in adequate infrastructure, qualified faculty members and even proper course contents.

CONCLUSION

Journalism originated as the reportage of current events, specifically in printed form, i.e. newspapers. However, propelled by the massive growth in technology and electronic communication over the past decade, its scope has expanded and its definition has evolved into an all-encompassing domain of information. The current stage on that evolutionary ladder — following print, radio, and television — is digital journalism, the most widely used and popular driver of news consumption in today's world.

As of now, as many as 80% of Indians consume news on the Internet, primarily through the social media and instant-messaging services. The large-scale use of services like Facebook, Twitter, Instagram, LinkedIn, and YouTube has allowed news organisations to offer regular updates to consumers on current events, bypassing barriers of time and accessibility. In fact, advancements made in chat-bots have also made it possible to deliver curated news, stock market updates, and other relevant information, tailored specifically for the individual consumer, on WhatsApp and Messenger.

The New trend of Digital track is in notion at present. This makes immense potential today to make coherent opinion from the diversified people. It makes valuable information to each and every one of us those know and understand and express through the Digital media. It makes clear cut knowledge without any language barriers. The precise information on the weather reports help to know the impact of the variations, in order to make decisions.

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THE ROLE AND CHALLENGES FOR AUDITING IN BANKING SECTOR

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ABSTRACT

Today, the banking industry in our country is strong enough and capable of withstanding the growing competition. It has faced with Global Financial Crisis (2008). Globalization Banking Sector in India is rapidly changing since 1990s due to technological innovation, financial liberalization with entry of new private and foreign bank. Indian banking industry is gradually moving towards adopting the best practices in accounting, internationally accepted and facing competition in world. In India banking sectors play important role in working of audit. The banks help to develop rural economy. Bank provides credit for development of agriculture, trade, commerce, industries etc. In our country, currently we are having developed banking system like – public sector banks, foreign banks, and private sector banks – both old and new generation, regional rural banks (RRBs), Commercial Banks, Development Banks and co-operative banks with the Reserve Bank of India as Banker Banks. Banks are now using the new and latest technologies like internet and mobile devices to carry out transactions and communicate with the masses.

Keywords: Banking sectors, Development, Auditing.

INTRODUCTION

At present the Indian Banking Sector comprises of four major categories of banks

1. Commercial Banks.
2. Regional Rural Banks.
3. Cooperative Banks.
4. Development Banks.

The bank performs basic and traditional banking function of accepting deposits and lending money. They are further divided into Public Sector Banks and Private Sector Bank. They include- Nationalized Banks, State Bank of India and 7 subsidiaries of SBI, Scheduled Banks, and Non Schedule Banks, Foreign Banks etc.

The Cooperative Banks offer better rate of interest on deposits than commercial banks. There are three types of Cooperative Banks- Central Cooperative Banks, State Cooperative Banks and Primary Cooperative Banks.

SPECIAL FEATURES OF BANK

- Banks have custody of large volume of monetary items i.e. Cash and Negotiable instruments.
- They are engaged in transactions in terms of both number and value.
- Banks are regulated by government authorities.
- They operate through wide network of branched with geographically scattered.
- There are many Laws applicable to banks.

Audit of accounts in banks

Section 30(1) of Banking Regulation Act, 1949 requires the balance sheet and profit and loss accounts of the banks should be audited by a person duly qualified under any law for the time force to be an auditor of companies.

- Provision for Appointment of Auditor for banks.
- Provision for Remuneration of Auditor.
- Provision for Qualifications and Disqualification of auditor.
- Powers / Rights of Auditor of banks.
- Performance of Audit Work.

Appointment of Auditor

1. Scheduled banks auditor is appointed by shareholders in Annual General Meeting with approval of RBI.
-

2. Nationalized banks are appointed by the banks through its Board of Directors with approval of RBI.
3. Auditor is appointed by approval of Central Government in Rural Regional Banks.
4. The auditor of State Bank IS Appointed by Comptroller and Auditor General of India.

The State bank of India Act, 1955 provides for appointment of two or more auditors. Even Nationalized banks and Subsidiaries of SBI generally have joint auditors.

Remuneration of Auditors

1. The remuneration is fixed by the shareholder in Annual General Meeting with provision of Section 142 of Companies Act, 2013.
2. In Nationalized Banks remuneration is fixed by RBI with help of Central Government.
3. State Bank of India fixes on the basis of subsidiaries of SBI.
4. Central Government fixes remuneration for Regional Rural Banks.

Qualification and Disqualification of Auditor

Provision of Section 141 of the company Act, 2013, is applicable for qualification and disqualification of auditor of banks.

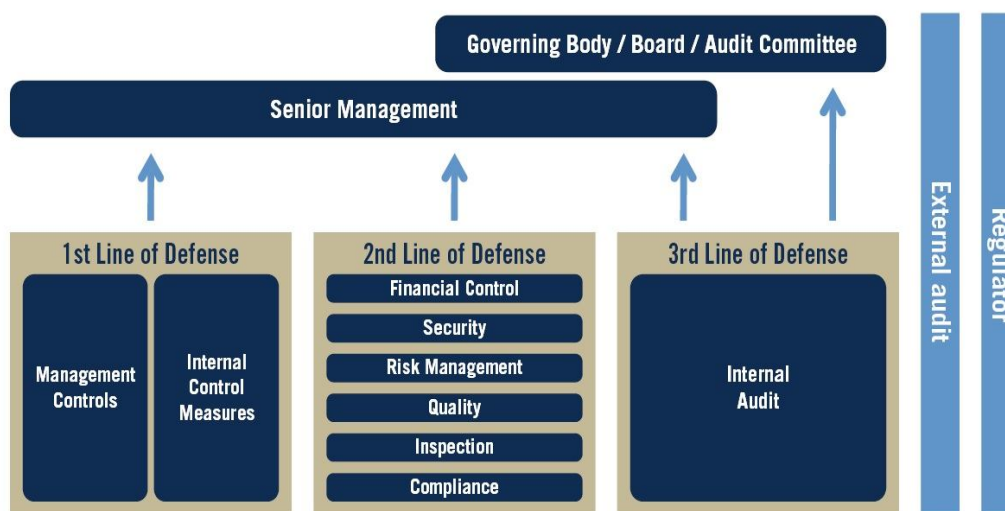
Power and Rights of Auditor of Bank

The auditor of banks has same powers as that of company auditor.

INTERNAL CONTROLS IN A BANKS

Internal audit team should conduct surprise inspections of head office and branches at regular interval. The power of officers of different grades should be clearly defined. The work of one person should be checked by another person .payment should be made only after the vouchers are passed for payment by proper officer. Prompt action should be taken by Central authority if any entries are not responded to by any branch within a given time. Reimbursements to merchants should be made only after verification of validity of merchant cards.

The Three Lines of Defense Model



Adapted from ECIIA/FERMA *Guidance on the 8th EU Company Law Directive, article 41*

Verification of Assets and Liabilities:

1. Assets

- a. Cash and Balances with RBI.
- b. Balances with Banks other than RBI.
- c. Money at call and short notice.
- d. Investments.
- e. Advances

f. Non- Performing assets.

g. Other fixed assets.

2. Liabilities

a. Share capital

b. Reserves and surplus

c. Capital reserve

d. Share premium balance in profit and loss A/C

e. Deposits

f. Borrowings

g. Other liabilities

Non -Performing Assets

An asset becomes Non Performing when it ceases to generate income for bank. A non performing asset is a loan where,

a. Interest and installment overdue for a period of more than 90 days.

b. The account remains “out of order” in case of overdraft.

c. The bill over dues for more than 90 days.

d. The installment of principal remains overdue for two season or duration.

e. Amount of liquidity facility remains for more than 90 days in case of securitization transactions.

Limitation of study

Due to time limit the research has conducted survey up to the limited area of Bhandup.

In Bhandup the research has selected only 5 banks.

OBJECTIVE OF RESEARCH

- To study the problem faced by Customer.
- To study the provision required by bank in Non Performing Assets.

RESEARCH METHODOLOGY FOR DATA COLLECTION

To minimize errors in data collection, the researcher conducted the survey by preparing questionnaire, personal interview, and telephone communication was method of data collection. It includes the study of area.

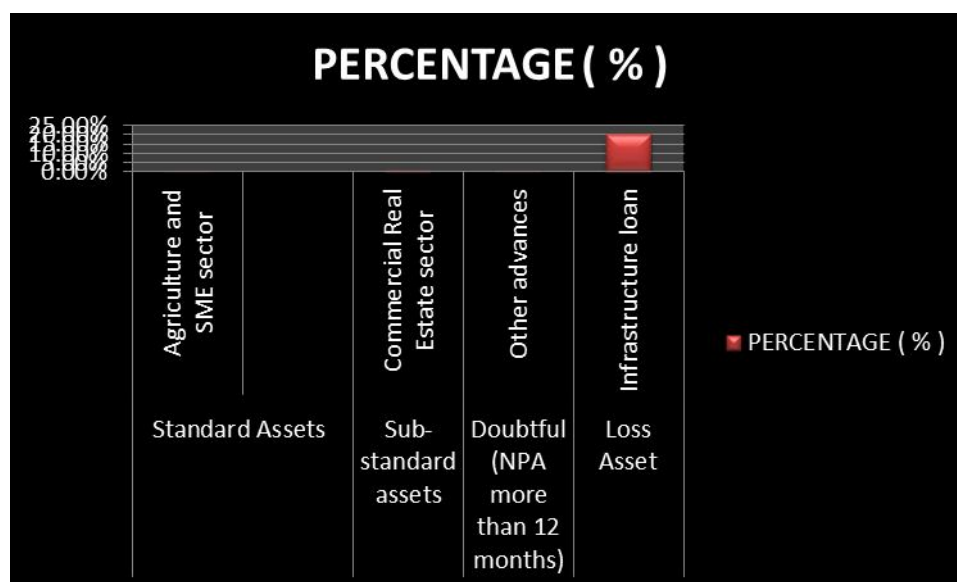
- Respondents – 5 Banks.
 - Area of study – Local area of Bhandup (MUMBAI).
 - Interviewees of study - bank employee.
 - Data collection- the researcher has used both methods of data collection. Primary data is used to some extent.
 - Secondary data – the secondary data is collected from newspaper , internet different websites.
 - Sample design- The sample size is selected on random basis. The researcher selected 10 samples for study.
 - The researcher has tried to collect maximum information by the questionnaire of bank study. Some of the questions are as followed.
1. Name of bank.
 2. Date of establishment.
 3. Amount of loan sanction.
 4. Types of sectors.
 5. Total profit or loss.
 6. Assets secured up to.

7. Direct advances given.
8. Loss of assets.
9. Problem faced by employee.

Analysis & Interpretation of data – it deals with presentation, data collection and etc.

Provisions as per data collected by researcher.

	PROVISION REQUIRED	PERCENTAGE (%)
Standard Assets (overdue up to 90 days)	Agriculture and SME sector	0.25%
Sub-standard assets	Commercial Real Estate sector	0.40%
Doubtful (NPA more than 12 months)	Other advances	0.40%
Loss Asset	Infrastructure loan	20%



Interpretation of data

From above study analysis of data of 5 banks of Bhandup are as followed:

- The banks are engaged in different types of banking actives.
- The company face problem with bank routine transaction related to audit.
- The provision related to various sectors of secured or unsecured loans is doubtful.
- Loss asset is loss identified but not been written off wholly.
- There are more chances of non-recovery of loans.
- The gap between two statements is problematic for auditing.

FINDING OF STUDY

- In day today actives it is very difficult for banks to provide necessary information on demand of auditor.
- On path of auditor it is very important to check, verify and value the fixed assets and liabilities of company.
- The banks have to verify the terms and conditions like ownership, possession, valuation and disclosure.
- It is difficult to find out TDS with reference if any fraud caught by auditor.

SUGGESTION

- The auditor are been said to audit the bank statement as per term and conditions of company.
- The banks are requested to keep all documents safe in custody as there may be chances of misuse.
- The banks should see that the assets especially to go and verify stocks of stationary, cheque books, pay order of company.

CONCLUIONS

Auditors should verify balances with individual A/C on sampling basis. The banker should pay special attention on company will filing of audit works. The banks should find out payment of principal and interest in case of loans is paid regular. The auditor should reconcile statement has been prepared in different account held with RBI, SBI and other banks. The banks should keep calculating the over dues or matured investment. The NPA should sell with banks within 2 years at least. Any recovery related to the purchase of NPA is first adjusted against the acquisition cost and only amount in excess of acquisition cost is recognizes as profit.

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TRENDS IN HUMAN RESOURCE MANAGEMENT

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ABSTRACT

The new approach for managing people in organization are been evolved by the industries depending on changing environment which is impacting both internal and external outcomes for the well being of both organization and personnel's in organization. The innovative trends are enhancing the quality of employees by implementing the trends. It also explain the talent retention of employees by using 6Ps model.

INTRODUCTION

Human resource is a human being inputted in any organization or business work. It act as important part of work life, even though it's a era of Machine but it is said to be lifeless unless human don't put life. it is a human power who put its skill and its abilities for better functioning of business. There are ennumbers of updation made in human resources depending on changing nature of environment from traditional to professional aspects of management. There are many new trends being used by Indian economy by following the international aspects of human resource management. The organization also has to manage the talent of the human resource in organization by using various methods like implementing 6Ps of human resources management.

MEANING

Human resources trends are latest up gradation brought in managing the human being for balancing the both organizational and human well being for effective functioning of organization. Following the path of international trends Indian economy is too coming on their path to manage their man power for smooth functioning of organization

6Ps Model for Talent Retention**Plan**

Organization should have long term strategy to find and retain best in the people.

Promise

Keeping to your promise for your words made to employee making into reality.

Pay

Organization should not just make promise by words but also compensate the employees with better remunerations or with extra benefits.

Prepare

Organization should not just plan and promise for talent to be retained but also should be in a position to input the talent in right path.

Promote

Giving the opportunities to employees to explore their talent through giving scope not just by money but also by branding their values.

Protect

It is process where organization need to be involved in just process of outward where organization need to utilized their talent for safeguarding the employees physically as well as mentally by utilizing various aspects like Pension funds, insurance etc for their future as well present.

The Innovative aspects to manage are as follows

With the help of the above model the trends developed to manage human resources are as follows

Women empowering

CHRO has witnessed in its latest article published in TOI there has been shift in HR leader post from men to women leader MNCs appear to chalk out better career paths for internals candidates, creating better successor women as compared to Indian enterprises, whereas external hiring is prominent features across the organization. The reason behind this current shift can because of proper balance between HR essence such as 'Personality and potential' which is conventional strong characteristic of women where women stands stronger on part of demonstrating higher level emotional intelligence and interpersonal skills.

HIGHLIGHTS

- A specialist staffing firm mapped 200 movements of women HR officers over the last few years and found that they had replaced a male incumbent as an HR head in over 60% cases
- This indicates stronger action by companies to meet their diversity and inclusion (D&I) requirements, especially at leadership levels, albeit through the HR department

Employee wellness

Many organization have realized the importance of stress free employee for fruitful functioning of organizations, they have come with new aspects where expanding from not just physical well being but also mental, financial and spiritual wellness for their betterment like stress free regulation training, meditation, tracking health wellness on phone, customized wellness programs and offering investment programs to reduces financial burden.

Changing aspiration

Employees are clearly showing a new kind of aspiration since they receive better education and training and also because they are brought up in different environment these days. Similarly, there are new demands from them with new age phenomenon of artificial intelligence and automation. The traditional roles of an employee are changing and HR managers look for suitable traits in times of digitization. A person looking for a job these days must have adequate computer friendliness and some skills for digital operation.

Employees flexibility

Now days companies are being flexible in terms work from home keeping in mind the present day realities like modern mindset of the employees, traffic, congestion, and distance from office etc. the current HR trends are so flexible giving choose to employees to choose for their salary structure, place of work.

Emphasis on Employee Development

As India continues to be among the fastest growing economies in the world, attracting and retaining talent will become crucial. Indian companies recognize that and are putting more and more emphasis on up skilling and developing their employees. They are using unique approaches to arrive at this goal – providing portals that enable self-learning and development, including development in their performance management systems, partnering with well known academic institutions to build skills and develop leaders, etc.

PoSH

Prevention of Sexual Harassment Act 2013 being a sensitive issue over the organization from many years. Now-a-days companies are having separate PoSH committees to handle and empower the people about the policies in organization. So as to avoid the crucial impacts on overall organization.

Equality and bias

As the call for equal opportunity and equal pay for equal work done gains steam, Indian companies and MNCs alike are trying to put in place policies that are more inclusive. Diversity and inclusion is no longer a catchphrase but very much an important agenda for the Indian corporate world. This includes using technology for blind hiring, sensitizing all employees, more inclusive onboarding processes, etc. Much more effort will be directed toward improving diversity in the workplace, maybe even setting diversity goals as part of their Talent Acquisition process.

Inclusion and diversity

Now a days companies are becoming more diversified by accepting employees from different countries, religion or caste by allowing them to show case their skills and knowledge. With this, they are trying to more inclusive and have adequate diversity in the workforce and in the organizations. For companies to more inclusive, employees have to show maturity and sensibility. Even returning mother (those women who took a gap in their careers because of child birth) are being welcome more and more. This is another way modern day corporate are showing inclusiveness. Even those employees who take a gap year, which is accepted nowadays by HR managers, have to retrain when they come back and a process has to be followed to integrate them again the company fold.

Extended maternity leave

While the traditional three months maternity policy is being extended to six months, companies such as Accenture are still working on extending the 24 weeks leave to 26 weeks. For mothers who go through complications during childbirth receive an additional four weeks of leave, along with the normal 18 weeks of paid maternity leave at Google.

Leave, reimbursements for fertility treatment

Companies now offer leave and reimbursements for IVF treatments. For instance: Godrej Industries has modified its leave benefit policy to allow women employees to claim sick leave for time taken off for fertility treatment. Sick leave at the company can be availed of in an unrestricted capacity by all employees. EY (formerly Ernst & Young) multinational professional services, has started offering fertility treatment coverage where the employees are being offered \$25,000 for fertility treatments and adoptions

Surrogacy and adoption policy

Pregnancy, surrogacy and adoption – all are equal as they bring baby in a home. Companies are offering same benefits to couples opting for surrogacy and adoption as for maternity. “We provide same maternity benefits to couple who are opting for surrogacy and adoption,” said Tanaya Mishra, managing director, HR at Accenture.

Outsourced Recruitment

When companies outsource the recruitment process to an agency, both cost & time is considerably reduced. This is mainly because an external agency will use its dedicated resources for this work, will also share the risk and will follow streamlined processes. Cost control and the need to concentrate on main business are one of the common reasons to outsource recruitment. When the recruitment is outsourced to external recruiting experts, company resources can be utilized to concentrate on the core business processes.

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ADVANCEMENT IN WOMEN ENTREPRENEURSHIP IN INDIAN PERSPECTIVE

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ABSTRACT

Entrepreneurship plays important role in development of underdeveloped and developing countries. Women form 50% of total population. Hence, women entrepreneurship development plays important role. Women aware of their fundamental rights and existence. The development of women entrepreneurship in industries is very low in rural area as compared to urban area. Indian government has not given the status of industry to agricultural field. This paper focuses on women entrepreneurs, their status and problems faced by them in so called male dominated orthodox society.

Keywords: Women, Entrepreneurship, Rural, Urban and Problems.

INTRODUCTION

In 1991-92, Government of India has initiated new policy of economic liberalization, globalization and privatization. In India almost all women in rural area whether literate or illiterate, skilled or unskilled are involved in production activities in agricultural field. However, in urban area there is low participation of women in production/economic activities especially working in unorganized sector.

Mahatma Jotirao Phule who opened first school in India at Pune State-Maharashtra, propounds if woman is educated she will educate entire family. So, need to educate women and to change the traditional view to treat women. Women are creator of human being. Even though, India faces the problem of gender equality. Development of women leads to development of nation. Women should be given a chance to take decision in economic matters. Hence, Dr. Babasaheb Bhimrao Ambedkar wrote a book "HINDU CODE BILL" for upliftment of entire women in India, which later became a Law.

OBJECTIVES

1. To educate women in India.
2. To give equal opportunities to women in India as per Principle of Equality in Constitution of India.
3. To take supportive measures to become rural women entrepreneur.
4. To influence family behavior and respect towards women.
5. To reduce unemployment in India.
6. To increase export trade of India.
7. To increase National Income.
8. To increase per capita income.
9. To improve standard of living of people in India.
10. All round development of India

RESEARCH METHODOLOGY: Reference Books and E- Books.**CONCEPT OF WOMEN ENTREPRENEUR**

Women who manage business in private company or public company or co-operative society or any small scale or large scale business, individually or jointly and contribute individually or jointly, not less than 51% of the share capital.

CATEGORIES OF WOMEN ENTREPRENEURS IN INDIA:**FIRST CATEGORY**

- * Establishment in Urban Area.
 - * Higher level or sufficient technical or professional qualifications.
 - * Non-traditional or traditional items.
 - * Sound financial positions.
 - * Involved in women services like kindergarten, crèches, beauty parlors etc.
-

SECOND CATEGORY

*Established in Rural Area.

*Literate or Illiterate Women.

*Financially weak.

*Involved in family business like Agriculture, Agro forestry, Animal Husbandry, Dairy, Fisheries etc.

SUPPORTIVE MEASURES FOR WOMEN'S ENTREPRENEURSHIP

A] FINANCIAL SUPPORT

* Nationalized Banks.

*State Finance Corporation [SFC]

*District industries centers.

*Mahila Udyog Nidhi Scheme.

*Small Industrial Development Bank of India [SIDBI]

*State Small Industries Development Corporations [SSIDC]

B] YOJNA, SCHEMES AND PROGRAMME:

*Nehru Rojgar Yojna.

*Jacamar Rojgar Yojna.

*TRYSEM.

*DWACRA

C] TECHNOLOGICAL TRAINING AND AWARD

*Shree Shakti Package by SBI

*Entrepreneurship Development Institute of India.

*Trade Related Entrepreneurship Assistance and Deveopment.

*National Institute of Small Business Extension Training [NSOBET]

*Women's University [SNDT]

D] FEDERATIONS AND ASSOCIATIONS

*National Alliance of Young Entrepreneurs [NAYE]

*Indian Council of Women Entrepreneurs, New Delhi.

*Self Employed Women's Association [SEWA]

*Association of Women Entrepreneurs of Karnataka [AWEK]

*World Association of Women Entrepreneurs [WAVE]

*Association Country Women of the World [ACWW]

WOMEN ENTREPRENEURSHIP IN INDIA

STATES	NO. OF UNITS REGISTERED	NO. OF WOMEN ENTREPRENEURS	PERCENTAGE
MAHARASHRA	4339	1394	32.12
KERALA	5487	2135	38.12
GUJARAT	3872	1538	39.32
UTTAR PRADESH	7980	3180	39.84
KARNATAKA	3822	1026	26.84
MADHYA PRADESH	2967	842	28.38
PUNJAB	4791	1618	33.77
OTHER STATES & UTS.	14576	4185	28.71
TOTAL	57452	18,848	32.82

WOMEN WORK PARTICIPATION

COUNTRY [2000-2001]	PERCENTAGE
INDIA	31.6
USA	45
UK	43
INDONESIA	40
SRILANKA	35
BRAZIL	35

PROBLEMS OF WOMEN ENTREPRENEURS IN INDIA

1. Patriarchal male dominated society is a main hurdle.
2. Married women have a main responsibility for their children home and older dependent family members and family ties and relationship.
3. Financial Institutions and Banks make discrimination in providing finance to women entrepreneurs.
4. Male-Female Competition.
5. Marketing hurdles depend on family members.
6. Knowledge of Raw Material availability and low bargaining power.
7. Knowledge of latest technological changes.
8. Low level education and confidence hence, high cost of production and low economic development.

REMEDIES TO DEVELOP WOMEN ENTREPRENEURS

1. Respect women participate them in decision-making.
2. Better education facilities.
3. Better training programme.
4. Skill development programme.
5. Counseling through Managerial experts, NGO'S, psychologists, technical personnel and social reformers.
6. Provide finance through financial institutions and Banks.
7. To give status of Industry to Agriculture.
8. More government schemes to women in entrepreneurship.

CONCLUSION

Women contribute 50% of total population. If women's are involved in entrepreneurship 50% of intellectual property of India can be utilized for the economic development of nation. Of course, it will not only increase the income of the family but also increase the national income. If a women is empowered her competencies towards entrepreneurship will surely influence her family behavior and respect. NITI AYOJ said women entrepreneurs in India are bringing about a lot of development in the public and private sectors –[21st February, 2018 Washington (PTI)]

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MOBILE BANKING AND IT'S APPLICATION**Vidhi Shrivastav, Preeti Yadav and Shivangi Bist**Student, Shri Ram College of Commerce, Mumbai

ABSTRACT

Technology plays an important role in banking sector. Banking is one of the largest financial institutions constantly explores the opportunity of technology enabled services to provide better customer experience and convenience. Mobile phone is a common technology device that became part of every individual in the information era. Mobile Banking is an emerging alternate channel for providing banking services. India is the second largest telecom market in the world, which is having high potential for expanding banking services using mobile. However, mobile banking has not become the choice of millions of people. The main objective of this study is to identify the mindset and analyze the security issues in Mobile banking among the banking customers in India.

Keywords: Mobile Banking, Mobile Banking in India, Applications.

INTRODUCTION

Mobile banking is a service provided by a bank or other financial institution that allows its customers to conduct financial transactions remotely using a mobile device such as a Smartphone or tablet. Unlike the related internet banking it uses Software, usually called an app, provided by the financial institution for the purpose. Mobile banking is usually available on a 24-hour basis. Mobile banking is dependent on the availability of an internet or data connection to the mobile device. The penetration of mobile in India has made rapid change in communication system. Apart from the reach of communication device; revolution in mobile technology like 2G, 3G, and 4G are created more market where the potential people are adopting the latest technologies. One can see the impact of mobile banking types due to the advancement in technology. Operating system used in mobile device also plays an important role in development of Apps for easy access of various services.

HISTORICAL BACKGROUND OF MOBILE TECHNOLOGY

Motorola¹ was the first company introduced mobile phone in the year 1973, which is very costly and also more weight (in Kgs) when compared with present mobile sets which are cheap and small in size.

1st Generation (1G): The first analog cellular system widely deployed in North America was the Advanced Mobile Phone System (AMPS). It was commercially introduced in the Americas in 1978, Israel in 1986, Australia in 1987 and India² in the year 1995.

2nd Generation (2G): Second generation mobile communication replaced the analog signal with digital signal. There are two major technical developments occurred that is GSM and CDMA technologies³. The NTT Do Como in Japan introduced internet service on mobile phones in the year 1999.

3rd Generation (3G): The mobile phone became essential communication system for millions of users worldwide. The 3G technology developed with the concept of packet switching instead of circuit switching for data transmission.

4th Generation (4G): The fourth generation⁴ technology introduced in the year 2009 with the technology advancement like WiMAX & Long Term Evolution (LTE) technologies.

RELATION BETWEEN MOBILE AND BANKING

Mobile payments were trialed in 1998 in Finland and Sweden where a mobile phone was used to pay for a Coca Cola vending machine and car parking. Commercial launches followed in 1999 in Norway. The first commercial payment system to mimic banks and credit cards was launched in the Philippines in 1999 simultaneously by mobile operators Globe and Smart. A. Mobile Banking Model The development in Information and Communication Technology (ICT), comfort and access of services, and competition with peer forced banks to introduce Mobile Banking services in India. Mobile Banking can be broadly classified into Bank-led model and Mobile Service Provider Led Model. In the bank led model, only customers of a bank can avail the mobile banking service from the bank. With these facilitates, the customers can do various banking transactions as per their convenience. The Mobile Service Provider Model is totally different from bank-led model; in this the mobile customers those who don't even having access of traditional bank account can do banking transactions through their mobile service provider.

VARIOUS MOBILE BANKING APPLICATIONS IN INDIA

SRNO.	NAME OF BANK	NAME OF APPLICATION	FEATURES OF BANKING APPLICATION
1.	SBI BANK	State Bank Anywhere	SBI (State bank anywhere) app is state bank of India's retail internet banking based application for your smart phones. State banking app is a safe, convenient and easy to use application.
2.	HDFC Bank	Mobile banking	HDFC Bank has recently launched its Android app in Google play store. HDFC mobile banking may use to access HDFC bank account.
3.	ICICI bank	Mobile Banking – iMobile	ICICI has launched its mobile banking app named iMobile .Its task are same as any other app.
4.	Bank of India	BOI BTM	BOI BTM mobile app is a Bank of India Mobile Banking app. Its service extended to all its customers through BOI BTM app
5.	AXIS BANK	Axis Mobile – Fund Transfer & UPI	Axis Mobile app is made for Axis bank mobile banking. Carry the bank in your pocket
6.	Canara Bank	Canara Bank Mobile Banking App	Canmobile app is build for Canara Bank mobile banking .It enables you to view balances through IMPS (Immediate Payment Services).
7.	Bank of Baroda	M-Connect	M-Connect are a mobile banking app for Bank of Baroda. M-Connect are free of charge. Here you can check account balance, and also you can funds transfer to accounts through (IMPS & NEFT).

MOBILE BANKING IN INDIA

Mobile Banking in India Banks is constantly adopting technology to expand its business and to reach different level of customers. Apart from ATM, Internet banking and other technology enabled services Mobile factors for the introduction of Mobile banking services. Some banks in India are started providing the mobile banking service to their customers that include State Bank of India (SBI Banking is one of the services provided by banks to its customers. Astonishing growth in telecommunication sector, its penetration including rural population and technology feasibility are the major), Union Bank of India (UBI), Punjab National Bank (PNB), HDFC, ICICI, Axis Bank, etc

BENEFITS OF MOBILE BANKING

- With the technological growth, mobile banking is gaining popularity over internet banking. In case of internet or online banking you need a computer and internet connection to access your account and this becomes a problem during urgency or when you don't have internet connection.
- Personally going to bank for transferring money or for any other transaction takes more time and energy. On the other hand, with the use of mobile banking you can get your work done within few minutes.
- With the implementation of new user friendly applications and software, mobile banking through your cell phone has become simpler.
- Mobile banking keeps you updated with any activity done in your account. For instance a money withdrawal, money transfer and other transactions to and from your account will be brought to your knowledge via SMS.
- Information such as mini-statement of your account, Insurance and mutual fund statement, loan updates, credit card statements etc. can be obtained on your mobile phone.
- Mobile banking is not only used for banking service but also serves as a way to sell the products of bank such as credit cards, loans etc.
- If you are interested in stock market and other real time investment then this is the best option for you.

ISSUES AND CHALLENGES

The rapid technology development in Mobile technology like 2G, 3G, and 4G has become major challenges for banks. It is visible that the bank which started Mobile Banking in the form of SMS banking, then adopted application (software) based model for traditional mobile handsets, the evaluation of Smart phones, mobile operating system and Mobile Apps posed the banks to adopt the current technology.

Security

Security experts generally agree that mobile banking is safer than computer banking because very few viruses and Trojans exist for phones. That does not mean mobile banking is immune to security threats, however.

Compatibility

Mobile banking is not available on every device. Some banks do not provide mobile banking at all. Others require you to use a custom mobile banking application only available on the most popular smart phones, such as the Apple iPhone and RIM Blackberry. Third-party mobile banking software is not always supported.

Cost

The cost of mobile banking might not appear significant if you already have a compatible device, but you still need to pay data and text messaging fees. Some financial institutions charge an extra fee for mobile banking service, and you may need to pay a fee for software. These extra charges quickly add up, especially if you access mobile banking often.

Thus, multi-factor authentication can be seen as a layer of friction for the user. However, using it smartly can balance both the security and the cost of mobile banking. The use of behavioural biometrics takes multi-factor authentication to a new level of both security and usability. It uses the natural interactions that users have with their mobile devices to identify patterns of behavior to validate and refine authentication for mobile banking applications. It solves the dual challenge of user authentication fatigue and mobile banking malware.

RESERVE BANK OF INDIA REGULATION

The following are the Reserve Bank of India (RBI) Guidelines issued to provide Mobile Banking Service in India:

1. Only such banks which are licensed and supervised in India and have a physical presence in India will be permitted to offer mobile payment services to residents of India.
2. The services should be restricted to only to bank accounts/ credit card accounts in India which are KYC/AML compliant.
3. Banks may use the services of Business Correspondents for extending this facility, to their customers. The guidelines with regard to use of business correspondent would be as per the RBI circular on Business correspondents issued from time to time.
4. The Risks and Controls in Computers and Telecommunications' guidelines will equally apply to Mobile payments.
5. The —Know Your Customer (KYC) and —Anti Money Laundering (AML) as prescribed by RBI from time to time would be applicable to customers opting for mobile based banking service.

CONCLUSION

Mobile banking enable to banking task more fast and easy have a positive effect. So Mobile banking transactions via Mobile Phones anytime, anywhere in India. Mobile banking integration gives the easy-to-use functions, fast accessibility, manageability, relevancy and user-friendly surfaces. Using Mobile Banking saves the time to directly interact the banks". There are different types of Mobile Banking transactions charges like Monthly Charges, Charges for specific Transactions and Charges for exceeding authorized overdraft limits etc. so all categories people were agreed on this factor. Thus we conclude that mobile banking can be optimistically used for welfare of human race and also bring financial inclusion in India but there are dark faces of mobile banking with threat of security and a burden to venerable section of society.

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ROLE OF ICT IN MARKETING AGRICULTURAL OUTPUT

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ABSTRACT

Purpose: The purpose of this paper is to observe the impact of ICT in marketing agricultural commodities by the farmers of Gauribidanur Taluq Chickballapur District. The relevance of incorporating of ICT in this Taluq is focused as Kolar District is very important for its online portal.

Design/Methodology/Approach: Data was collected from Gauribidanur Taluq farmers which has six hobbles adopting convenience sampling method with a sample size of 600. Based on the objective, hypothesis was framed and Questionnaire was drafted for collecting the data. The collected data was analysed at three levels i)Kruskal-Wallis Test ii) Man Whitney U Test, ANOVA iii) Focused Path Analysis.

Findings: This paper puts forward that Gauribidanur is not enjoying benefits of registering for online portal which has gained lots of popularity in Kolar District. The Taluq even today sells its Agricultural commodities to middlemen. The paper finds that there is a willingness of farmers for adoption of ICT, provided the Taluq politicians and the government help them in providing the infrastructure required.

Practical Implications: The study highlights some important issues for the adoption of ICT in Gauribidanur Taluq. One area that has to be taken care of is the facilities provided by the APMC yard. The perception of ICT will be different among the farmers of Gauribidanur. There is a need to train the farmers regarding appropriate adoption channel that ensures them high profit.

Originality/Value: The study contributes to ongoing research in ICT adoption in the Taluq.

Keywords: ICT, Gauribidanur, Agriculture, APMC, Middlemen.

INTRODUCTION

Modern development of Information Technology has made information as raw material for development, power and wealth of a country (Ahsanullah 2002) Nigerians do not have the basic infrastructure that is electricity for the functioning of IT (Hudson 2007) About a million people have mobile phones, but internet use is lagging behind with only twenty to thirty thousand Nigerians on the internet (Olukoya 2002) India's rural market is large and consists of 740 million consumers. Rural prosperity and income with rural consumers are linked to a sizeable extent with agricultural prosperity. In most of the products rural consumption now accounts for a large share than urban counterparts. A survey by NCATER clearly shows that rural market is growing at a faster rate than urban market. Green revolution in Indian Agriculture in the year 1970 has added to the prosperity of rural India. Companies that have carved inroads into the heart of rural are HUL, Nirma chemical work, Parle foods, Colgate Palmolive. A Hindi poet has rightly said "**Bharat Mātē Gram Vāsini**" which means, "**mother India lives in her villages**". Agriculture in Karnataka depends upon monsoon. It is the largest producer of spices, aromatic and medicinal crops. Second largest state in milk production after Gujarat. Second largest producer of grapes. Nearly 70% of coffee is grown here. Karnataka is the 3rd largest producer of sugar and 4th largest producer of sugarcane. Agriculture is very important

in this state as the growth of the Economy depends upon agriculture. Climatic conditions favor the state in the growth of vegetables. It is known for floriculture and silk productivity.

LITERATURE REVIEW

Hudson (2007) Findings of Hudson states that nearly 80% of Nigerians not only live in the rural areas but they are poor farmers and fishermen of which 90% of them are illiterates. They lack basic information such as internet, electricity, libraries and information centers. Rural areas in Nigeria will remain for a long time excluded from the global information village because of its underdevelopment and lack of social amenities like electricity with which information hardware and software need to function. Hudson reveals that imposing of new IT on illiterate rural farmers who do not have the necessary knowledge and skill and lack basic infrastructure for the functioning of information flow will be a waste.

Bartholomew (2010), ICT parameters differ significantly among the participants. Four parameters that were ranked highest by the focus group are cultural antecedents, impact of social networks, use, rate and context of ICT introduction. The dissemination of information. Bartholomew puts forward that to ensure successful diffusion of innovation, a balance has to be maintained between the amount of effort extended in the design of ICT and

social factors such as traditional life and language. The findings reveals that there is strong evidence of active social network and strong Government support for ICT adoption.

Lokeshware (2016) ICT not only helps in revolutionizing Indian farming sector but also addresses the challenges of traditional agriculture. Findings reveals that effective utilization of ICT has the potential to make rural communities prosperous.

Prasad Babu et.al (2013), The study observes that there is a significant difference between ICT users and non-users. ICT in agriculture and animal husbandry will help to increase the production and productivity of the livestock sector to meet the future demands of the country. The results show that exposure to new technologies like IVRS (Interactive Voice Response System) internet, sms can reduce communication gap.

METHODOLOGY

Objectives

- 1) To study the criteria adopted for selection of crop.
- 2) To choose mode of logistics by the farmers.

Hypothesis

- 1) There is a significant difference in preferences between set of respondents with respect to Criteria for **Selection of Crop and Mode of Logistics**
- 2) There is no significant difference in preferences between set of respondents with respect to Criteria for **Selection of Crop and Mode of Logistic**

Research gap: Despite huge attention and implementation of various ICT projects by many State and Central Governments, this sector is not flourishing. In spite of technology available and ICT facility available people are unaware and unable to adopt and use it in the Taluk.

Sampling Technique and Sample Size

Sample Size Formula when population size is known is:

$$n = \frac{N}{1 + ne^2}$$

e= Allowable error (5%)

$$n = \frac{49246}{1 + 49246(0.05)^2}$$

Therefore n = 397 Respondents

Sampling Population: Sample Size is minimum 397

Total Population: 49246

Sample collected from: 600

Convenience sampling

Area of study: Gauribidanur Taluq.

ANALYTICAL TOOLS USED

- Data was analyzed using suitable statistical techniques such as Mean, KW Test, Mann-Whitney U Test, ANOVA, Structured Equation Modelling (SEM), and (AMOS) Statistical Packages for Social Sciences (SPSS. IBM 21.0) has been used for the analysis.
- Descriptive statistics comprising of standard deviation, mean scores, percentages, and coefficient of variation was used to summarize the characteristics of the respondents.
- Inferential statistics was applied to establish the relationship between variables.

ANALYSIS OF DATA AT THREE LEVELS

1. To evaluate the significant differences Mann-Whitney U test is applied to evaluate 3 or more groups.
2. To assess the differences in the 02 parameters, their impact and significance were analyzed using.
3. Path analysis is drawn using AMOS.

SCOPE OF STUDY

Gauribidanur Taluk is considered for study.

Only Farmers are covered under the study, as the study relates to Agriculture.

600 farmers covered.

Questionnaire was used for Data Collection.

ANALYSIS AND INTERPRETATION

1) Criteria for Selection of Crop

Mean averages - σ calculated S D & calculated Statistics of Criteria for Selection of Crop

H_0 : There is no significant difference in preferences between set of respondents in Gauribidanur Taluk with respect to Criteria for Selection of Crop

H_1 : There is a significant difference in preferences between set of respondents in Gauribidanur Taluk with respect to Criteria for **Selection of Crop**

$H_0 = \text{Kasaba} = \text{Hosur} = \text{M-halli} = \text{Thondebhavi} = \text{D-palya} = \text{Nagaragere}$ $H_1 \neq$ at least one of them not equal to another.

$\alpha = 0.05$ Significance level

Table-1: Selection of Crop

Code	Descriptive Statistics			Test Statistics 1,2	
	Factor Criteria for Selection of Crop	Mean	SD	Asymp.	Decision
FS1	Food security	4.2837	0.0816	0.0076	Sig.Diff
EP2	Export potential	4.8690	0.0516	0.0085	Sig.Diff
IG3	Income generation	4.0927	0.9812	0.0012	Sig.Diff
MD4	Market demand	4.4681	0.0317	0.0034	Sig.Diff
EP5	Employment	4.8736	0.8267	0.0047	Sig.Diff
ML6	Marginal land use	4.4116	0.6247	0.0003	Sig.Diff
De.fr.=5	1. KW Test	2. Area Variable: Sectorial Belonging			

Source: Primary data.

As per Table No. - 1, **it is inferred that averages of FS1, EP2, IG3, MD4, EP5 & ML6** are 4.2837, 4.8690, 4.0927, 4.4681, 4.8736 & 4.4116 Correspondingly, which specify that the target group is in agreed state with reference to Criteria for Selection of Crop will have impact on Adoption of ICT -in marketing agricultural outputs.

It is concluded that, there is a significant dif-----ference in preferences between set of respondents in Gauribidanur Taluk with respect to Criteria for Selection of Crop. Hence alternative hypothesis is accepted

Table-2: Report on analysis of variance for Selection of Crop

Values	Sum of Sq	D.f	Mean. Sq.	F ratio	sign.
interacting Groups	1.77035	5	0.5444	3.304	0.0477
inside Groups	43.1225	594	0.0492		

Significant at 5 % level

Source: primary data

Table-3: Post hoc test- Bonferroni 'p'-numbers with criteria for Selection of Crop

	Kasaba	Hosur	Mhalli	Thondebhavi	Dpalya	Nagarager
Kasaba	-					E
Hosur	0.0354	-				
M-halli	0.0734	0.0954	-			
Thondebhavi	0.0594	0.0583	0.0831	-		
D-palya	0.0422	0.0505	0.0284	0.0237	-	-
Nagaragere	0.0254	0.0178	0.0599	0.0298	0.0116	

Source: primary data

The result of the ANOVA test shows that the Null Hypothesis is rejected and alternative hypothesis is accepted which specifies that there is a Significance difference in respondents responses with reference to criteria for selection of crop will have impact on Determinants for Adoption of ICT.

2) Criteria for selection of mode of logistics

Mean averages - σ calculated S D & calculated Statistics of Criteria for **selection of mode of logistics**

H_0 : There is no significant difference in preferences between set of respondents in Gauribidanur

Taluk with respect to Criteria for **selection of mode of logistics**

H_1 : There is a significant difference in preferences between set of respondents in Gauribidanur Taluk with respect to Criteria for **selection of mode of logistics**

H_0 = Kasaba = Hosur = M-halli = Thondebhavi = D-palya = Nagaragere

H_1 ≠ at least one of them not equal to another.

Table-4: Mode of Logistics

Code	DESCRIPTIVE STATISTICS			Test Statistics 1,2	
	Factor Criteria for selection of mode of logistics	Mean	SD	Asymp. Sig.	Decision
PI1	Production inputs	4.0572	0.5627	0.0068	Sig.Diff
FP2	Farm to packing house	4.8693	0.7141	0.0086	Sig.Diff
FM3	Farm to market	4.7602	0.9322	0.0008	Sig.Diff
PW4	Packing house to wholesaler	4.6464	0.1165	0.01	Sig.Diff
PM5	Packing house to market	4.8466	0.8199	0.1072	Sig.Diff
Df=5	1.K-W Test	2. Area dimensions: Sectorial Belonging			

Source: Primary data.

It is inferred that averages of PI1, FP2, FM3, PW4 & PM5 are, 4.0572, 4.8693, 4.7602, 4.6464 & 4.8466 Correspondingly, which specify that the target group is in agreed state with reference to Criteria for selection of mode of logistics will have impact on adoption of ICT- in marketing agricultural outputs.

Table-5: Report on analysis of variance for Selection of Mode of Logistics

Values	Sum of Sq	D.f	Mean. Sq.	F ratio	Sign.
interacting Groups	1.44889	5	0.8119	3.1372	0.0002
inside Groups	43.9385	594	0.0884		

Significant at 5 % level

Source: Primary Data

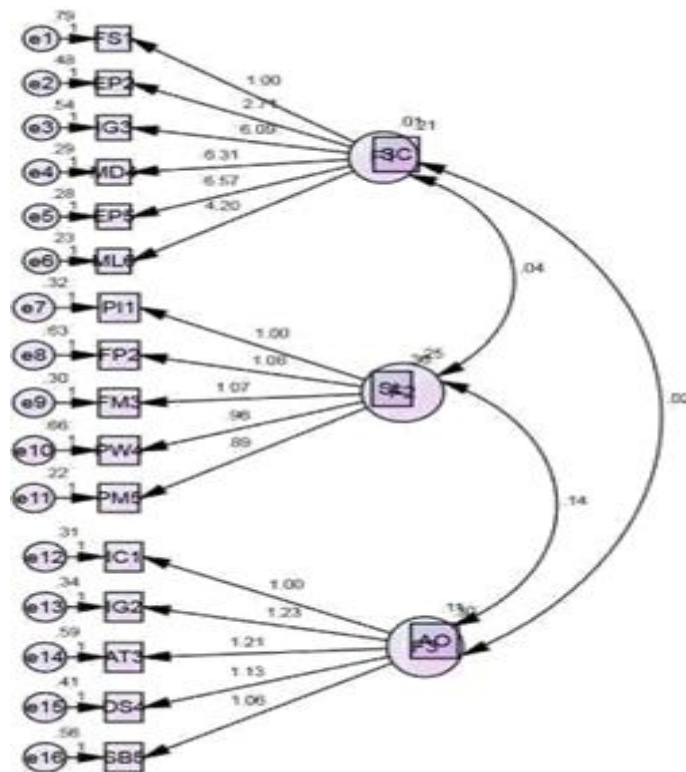
Table-6: Post hoc test Bonferroni p-numbers with criteria for selection of mode of logistics

	Kasaba	Hosur	Mhalli	Thondebhavi	Dpalya	Nagarager
Kasaba	-					e
Hosur	0.0549	-				
M-halli	0.0074	0.0305	-			
Thondebhavi	0.0615	0.0713	0.003	-		
D-palya	0.0606	0.0281	0.05	0.0979	-	-
Nagaragere	0.0396	0.0676	0.096	0.0154	0.0913	

Source: Primary data.

The result of the annova test shows that the null hypothesis is rejected and alternative hypothesis is accepted which specifies that there is a significance difference in respondent's responses with reference to criteria for selection of mode of logistics will have an impact on determinants for adoption of ICT- for marketing agricultural output.

Figure-1: Relationship between Criteria for selection of crop, Criteria for selection of the mode of logistics and its impact on other statements.



RESULTS AND CONCLUSION

F1: Regression Weights: EP5- Employment, MD4-Market Demand, IG3 Income Generated, ML6- Marginal use of Land, EP2- Export Potential. These are the variables which are significantly influencing on Selection of Crop . The above variables are arranged based on the level of influence on selection of crop only.

F2: Regression Weights for the following, EP2- Farm to Packing House, FM3-Farm to Market, PW4-Packing to Wholesale, PM5-Packing to Market. These are the variables which are significantly influencing on Mode of Logistics . The above variables are arranged based on the level of influence on Mode of Logistics only.

F3: Regression Weights for the following variables are IG2-Quality, AT3-Arrange Transport, DS4-Decision on Sale, SB5-Complete Sale Bid. These are the variables which are significantly influencing on Agricultural Output. The above variables are arranged based on the level of influence on Agricultural Output only.

Eigen value of F1 ie e(3) IG3,Income Generation is 0.540. So it is influencing on Selection of Crop.

Eigen value of F2 is e(8) and e(10) EP2- Farm to Packing House 0.632 and PW4-Packing to Wholesale 0.658 are more influencing on Mode of Logistics.

All the variables are significant in nature. Therefore we can infer that all the variables are appropriate for the study. However the above variables are more influencing.

FINDINGS

1) While analyzing the criteria for selection of crop among the six hobbies related to Food Security and Export Potential it was found that there was a significant difference in ranking order preference of respondents of Gauribidanur.

2) Logistics is very important in agriculture; the produce has to reach the market in time. While analyzing the criteria for selection of mode of logistics related to production Inputs and packinghouse it was found that there was a significant difference in ranking order of preference of respondents. Hence alternative hypothesis is accepted

SUGGESTION

The study of the present system indicated that there is an excellent system in place with most of the good practices forming the main stream of procedure. The Government providing infrastructure and APMC providing platform for marketing are two important building blocks of the system. The Kissan

Call center helps in broadcasting the day to day prices to the farmers. This indicates that we have a system in place and the system is also producing output. On detail study the system is not reaching the large mass due to various factors. The study and understanding of these factors leads to reengineering the present system, Hence we start with the problems faced by the farmers and then move on to understand the overall system in place. The procedure on its fine-tuning would be recommended to the Department of Agriculture for a complete and full fledged implementation.

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MANAGEMENT OF NON-PERFORMING ASSETS OF INDIAN BANKS: A PERSPECTIVE

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ABSTRACT

Non-performing Assets (NPA) are a drag on the profitability of any bank. The sharp rise of Non-performing Assets (NPAs) has pushed the Indian commercial banks to the brink of a crisis. During the last few financial years, there was an alarming increase of distressed assets of the Indian banks. According to the RBI, the factors causing deterioration of asset quality had been both internal and external. While the economic slowdown has resulted in borrowers under stress causing defaults and rise in NPA, the inadequate appraisal and monitoring of credit proposals also contributed to the crisis in no small manner. It is important that banks build early warning signals into their operations, so that potential loan defaulters are spotted before they can cause undue harm to the financial institutions.

RBI data shows that the gross NPA ratio of all the banks rose from 10.2% in September 2017 to 11.6% in March 2018. Even it is predicted that the gross non-performing assets ratio- bad loans as a percentage of the total loans- of the Indian banking system could reach 12.2% by March 2019. The paper discusses this alarming issue on backdrop of current economic and political changes. This is because of a statement stated by ministry that the banks and financial institutions should take all commercial decisions in the best interest of the organization without any fear or favor. This paper attempts to examine this current scenario by giving detailed analysis of performance of NPAs of public as well as private sector banks, the reasons behind them and RBI's framework which outlines a corrective action plan that will incentivize early identification of problem cases, timely restructuring of viable accounts and prompt steps by banks for recovery or sale of unviable accounts. It also focused on improvement in legal measures such as Debt Recovery Tribunals(DRTs), Lok Adalats and SARFAESI Act.

MANAGEMENT OF NON-PERFORMING ASSETS OF INDIAN BANKS: AN OVERVIEW

Non-performing assets are a drag on the profitability of any bank. It is important that banks build early warning signals into their operations, spotted before they can cause undue harm to the financial institution. The term Non-Performing Assets (NPAs) refers to an advance facility, in respect of which the interest or installment of principal has remained overdue for a period exceeding 90 consecutive days. An asset becomes non-performing when it ceases to generate income for the bank. The guiding principle is that the income on NPAs should not be recognized on accrual basis and should be treated as income only when actually received. Moreover banks have been instructed that the interest on NPAs should not be taken as the income.

I-Common classification of assets

Once an asset falls under the NPA category, banks are required by the Reserve Bank of India (RBI) to make provision for the uncollected interest on these assets. For this purpose they have to classify their assets, based on the strength and on collateral securities, into four types, as mentioned below:

Standard assets- a standard asset is an asset that does not pose any problem- it is not a non-performing asset. Since this asset does not carry any extra risk, banks were not required to make any provision for uncollected interest for these assets in the past. At present, however, they need to keep a small provision of 0.25 per cent of total outstandings.

Sub-standard assets- a substandard asset is an asset that has been a NPA for a period not exceeding two years. A general provision of 10 per cent of total outstandings should be made in this category.

Doubtful assets- A Doubtful asset was earlier an asset that had been a NPA for a period exceeding two years. This period was reduced to 18 months with effect from March 31, 2001. The general provision to be made on this asset is up to one year- 20 per cent; one year to three years-30 percent; and more than 3 years- 50 per cent.

Loss assets- A loss asset is an asset that has been identified by the banks, the internal, or external auditors, or the RBI inspectors, but the amount has not been written off fully or partly.

Even though accounts are classified as standard, sub-standard, doubtful and loss assets, if these are not realizable, such advances can be straightway classified as NPAs, irrespective of the stipulated period mentioned by the bank authorities.

II- current scenario

The sharp rise of Non-Performing Assets (NPAs) has pushed the Indian commercial banks to the brink of a crisis. During the last few financial years there was an alarming increase of distressed assets of Indian banks. According to the RBI the factors causing deterioration of asset quality had been both external and internal. While the economic slowdown has resulted in borrowers under stress causing defaults and rise in NPA, the inadequate appraisal and monitoring of credit proposals also contributed to the crisis in no small manner.

Gross NPAs of scheduled commercial Banks (SCBs) increased to INR 7918 billion as of March end 2017 from INR 6120 billion as of March end, 2016. Net NPAs as of March end, 2017 amounted to INR 4331 billion as compared with INR 3498 billion as of March 2016. While the percentage Gross NPAs to Gross advance of SCBs remained at 9.3 percent for the fiscal 2017 and 7.5 percent for fiscal 2016 respectively, the percentage of Net NPAs of SCBs increased from 4.4 percent as of March end 2016 to 5.3 percent as of March end 2017. SCBs', gross non-performing advances (GNPA) ratio raised from 10.2 percent in September 2017 to 11.6 percent in March 2018. However, their net non-performing advances (NNPA) ratio registered only a smaller increase during the period due to the increase in provisioning. The provision coverage ratio (PCR) increased across all bank groups in March 2018 from its level in September 2017. Among the bank groups, FBs had the highest PCR (88.7 percent) followed by private banks (51.0 percent) and PSBs (47.1 percent).

The following table gives the details of Gross Non-performing Assets and Net Non-performing Assets at a glance.

GNPA and NNPA of Banking Industry- At a Glance (in %)

Bank Groups	GNPAs 31.03. 2017	GNPAs 31.03.2018	NNPAs 31.03. 2017	NNPAs 31.03.2018
Public Sector Banks (PSBs)	11.7	15.6	6.9	8.6
Private banks (PVBs)	4.1	4.0	2.2	2.0
Foreign Banks (FBs)	4.0	3.8	0.6	0.4
All Scheduled Commercial Banks (SCBs)	9.3	11.6	5.3	6.1

Source: Reserve bank of India – Financial stability Report- June 2018

The share of large borrowers in SCBs' total loan portfolios, as well as their share in GNPAs, declined marginally between September 2017 and March 2018. In March 2018, large borrowers accounted for 54.8 percent of gross advances and 85.6 percent of GNPAs. The category 2 of special mention accounts (SMA-2) as a percentage of gross advances have decreased across bank-groups. Top 100 large borrowers accounted for 15.2 percent of gross advances and 26 percent of GNPAs of SCBs. The GNPA plus restructured standard advances in the banking system remained elevated at 12.1 percent of gross advances at end- March 2018.

Apart from this, For Raghuram Rajan, one of the top priorities after taking over as governor of RBI, was to ensure the lowering of NPAs of banks. Distressed assets had increased significantly over the past few years, partly because of slowing economy and poor demand as also inappropriate investment decisions by companies. Public sector banks lead the accretion of bad and doubtful assets. According to FITCH ratings and others the worst is still not over and the asset quality of the banks could deteriorate further. Stressed assets that include non-performing loans and restructured loans could rise to 15 percent of the total loans by March 2015 as against about 10 percent as on March 2013.

Thus banks are not in a good shape. Gross non-performing assets (NPAs) stood at 4.1 per cent of gross loans and advances at end –March 2014, as against 3.4 per cent at the end March 2013. Stressed assets, summing across NPAs and restructured assets, crept up over the year from 9.2 percent at the outset of 2013-14 to 10 percent at its close and have inched up further this year. The stressed assets would eat into the capital of banks and public sector banks could need as much as Rupees 3,80,000 cr of new equity by 2019 to meet the Basel III requirements. Loans that turn bad hurt a bank by no longer yielding income in the form of interest and by requiring the bank to make provisions for them.

With public sector banks holding more than four to fifth of the NPAs the government in October was required to invest Rupees 14000 cr. in select state-run banks to ensure they maintain their capital adequacy of more than 8 percent. Sectors including infrastructure, power, iron & steel & textile, led the NPAs because of delays in projects because of policies, supply bottleneck and economic slowdown. The three accounted for almost half of the NPAs as of 2013, compared with 28 percent as of March 2011. Retail loans were better quality of assets with gross NPAs of 2.5 percent.

III-The main underlying reasons for NPAs in India

Because of the slowdown and high levels of leverage some industry & infrastructure sectors are experiencing a rise in NPAs.

Industry wise gross NPA (in percentage)

Industries	September 2013	September 2014
Coal	7.5	11
Food processing	6.7	7.6
Textiles	7.5	9.7
Chemicals & chemical products	7.5	8.3
Cement & cement products	5	10.4
Iron & Steel	6.9	6.9
Gems & Jewellery	11.9	14.2
Construction	6.9	5.7
Infrastructure	1.9	2.4
Aviation	13.9	9.1

(Ratio to gross advances/in %)

Financial sector experts offer a few other reasons for NPAs in India. These are listed below-

Liberalisation of the economy The liberalization of the Indian economy led to the removal of foreign trade restrictions and a reduction in import tariffs. A large number of borrowers were unable to compete in a free market, in which lower prices and greater choices were available to consumers. Further, borrowers operating in specific industries suffered due to political, fiscal and social compulsions that resulted from liberalization (e.g. sugar and fertilizer industries).

Tax monitoring of credits Loan proposals generally pass through many levels of scrutiny before approval is granted. However, the monitoring of sometimes complex credit files has not received the attention it needed, which meant that early warning signals were not recognized and standard assets slipped to the NPA category without banks being able to take proactive measures to prevent this from happening. Adverse trends in borrowers performance were not noted in time.

Over-optimistic promoters promoters were often optimistic with respect to setting up of large projects and in some cases, their intentions were not above board. Screening procedures did not always highlight these issues. Often, projects were set up with the expectation that part of the funding would be arranged from the capital markets, which were booming at the time of the project appraisal. When the capital markets subsequently crashed, the requisite funds could never be raised, promoters often lost interest and lenders were left stranded with incomplete or unviable projects.

Directed lending Loans to some segments were dictated by government policies rather than commercial imperatives.

Highly leveraged borrowers some borrowers were under capitalized and overburdened with debt to absorb the changing economic situation in the country. Operating within a protected market resulted in low appreciation of commercial/market risk.

Funding mismatch In many cases, loans granted for the short term were used to fund long-term transactions.

High cost of funds Interest rates as high as 20 per cent were not uncommon. Borrowers could not service this high-cost debt.

Willful defaulters There were a number of borrowers who strategically defaulted on their debt service obligations, as they realized that the legal recourse available to creditors was slow in achieving results. For e.g. kingfisher industries, Sahara group of industries etc

IV- RBI's New framework for revitalising distressed assets

Amidst rising stress, increasing NPAs and restructuring of bank loans and in order to ensure that the banking system recognizes financial distress early, the RBI has come up with a new framework which outlines a corrective action plan that will incentivise early identification of problem cases, timely restructuring of accounts which are considered to be viable and prompt steps by banks for recovery or sale of unviable accounts. The framework proposed was implemented with effect from 1st April 2014.

1. The guidelines propose higher provisioning for delayed identification of NPAs and incentives for early detection and resolution. It suggested classifying stressed accounts into **Special Mention Accounts (SMA)** with three sub categories viz SMA-0 being accounts with signals of incipient stress, SMA-1 being accounts with principal and interest overdue of 31-60 days and SMA-2 with 61-90 days. An account is now treated as NPA if the overdue are beyond 91 days.

2. The RBI set up a **central Repository of Informations on Large Credits (CRILC)** to collect , store, and disseminate credit data to lenders. Banks will have to furnish credit information to CRILC on their borrowers having aggregate fund-based and non-fund based exposure of INR 50 million and above. Banks will be required to report, among others, the SMA status of the borrower to the CRILC.

3. **Joint Lenders' Forum** RBI's intention is that as soon as an account is reported to CRILC as SMA-2, the lenders should form a committee to be called Joint Lender's Forum (JLF) under a convener and formulate a joint corrective Action Plan (CAP) for early resolution of the stress in the account under Multiple Banking Arrangements (MBA), the lender with the highest exposure. It is proposed that JLF formation would be made mandatory for distressed corporate borrowers with aggregate fund based and non-fund based exposure of INR 1000 million and above. Lenders , however, have the option of formation of JLF's even when the aggregate fund-based and non-fund based exposures in an account are less than INR 1000 million. The JLF agreement between banks will be basis for the functioning of the forum.

4. **Corrective action plan** The lender's forum will explore various option to resolve the stress in the account through various modes like rectification, restructuring or recovery. As a first step the JLF will explore to take measures intended to turn-around the company without any change in terms and conditions of the loan, consider providing need based additional finance to the borrower, if consolidated necessary etc. ensuring that additional financing is not provided with a view to ever green the account. If the existing promoters are not in a position to bring in additional money or take any measures to regulate the account, the possibility of getting some other equity /strategic investors to the company shall also be explored by the JLF in consultation with the borrower.

5. **Restructuring** The framework has introduced certain improvements in the current restricting process of accounts. Independent evaluation of large value restructuring is mandated, with a focus on viable plans and a fair sharing of losses between promoters and creditors. Under a new framework banks are advised to consider the possibility of restructuring the account if it is prima facie viable and the borrower is not a willful defaulter, i.e, there is no diversion of funds, frauds or malfeasance, etc either under the CDR route or otherwise. Restructuring under the corporate Debt Restructuring (CDR) mechanism will help banks to retain the accounts as standard. The viability of the account should be determined by the JLF based on acceptable viability benchmarks determined by them and conducting a Techno- Economic viability (TEV) study.

6. **Sale of stressed assets** The new framework envisaged a more liberal regulatory treatment of assets sales by banks. Lenders can now spread loss on sale over two years provided loss is fully disclosed. Accordingly Asset Reconstruction companies are constructed as a supportive system for stressed asset management with greater emphasis on asset reconstruction rather than asset stripping .presently, banks can refinance their existing infrastructure project loans by entering into take-out financing agreements with any financial institution on a predetermined basis. So, RBI may allow infrastructure and other project loans to be refinanced by other institutions from the existing set of financing banks of the borrowers and the refinancing institution(s) can fix a repayment period by taking account the life cycle of the project and cash flows from the project

7. **Credit risk management** For strengthening the credit management processes of banks RBI has advised that banks should carry out their independent and objective credit appraisal in all cases and must not depend on credit appraisal reports prepared by outside consultants. Lenders should ascertain the source and quality of equity capital brought in by promoters/shareholders, properly scrutinize the financial ratios, ascertain the end of funds and conduct the defaulters list checks. RBI in the new framework reiterates instructions regarding restrictions placed on banks on extending credit facilities including non-fund based limits, opening of current accounts, etc to constituents who are not their regular borrowers. RBI will ensure strict adherence by banks to these instructions and any breaches in this regard are likely to vitiate credit discipline will attract penalization.with a view to bring in more transparency, henceforth banks would be required to disclose full details of write offs including separate details about technical write offs.

CURRENT PICTURE ABOUT NPA RECOVERY: TOUGHER LAWS NEEDED

We need to enact stricter –than-ever laws to recover bank dues. If one goes by the RBI data on NPA recovery, of the three channels, recovery through debt recovery tribunals(DRT) has fallen sharply. Moreover the numbers

seem to suggest that Lok Adalats (public courts) aren't being too effective, with their recovery rate remaining low and case load piling up.

NPAs of scheduled commercial bank recovered through 3 channels (Amount in Rs.billion)

Recovery channels	Lok Adalats		DRT		SARFAESI Act	
Year	2015-16	2016-17	2015-16	2016-17	2015-16	2016-17
No. of cases referred	4456634	2152895	24537	28,902	1,73,582	80076
Amount recovered	32 billion	38 billion	64 billion	164 crore	132 billion	78 billion
Recovery rate(%)	4.4	3.6	9.2	24.4	16.5	6.9

SARFAESI Act- Securitisation and Reconstruction of Financial Assets and Enforcement of Security Act.

Source- RBI financial stability report June2018

Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest Act, 2002 (SARFAESI Act)- This act empowers the banks to take possession, manage and sell securities without the intervention of a court/ tribunal. During the year 2016-17, 80076 cases involving an amount of INR 1131 billion were referred . The recovery was INR 78 billion which was 6.9 percent. A number of measures have been taken to recover loan amount from NPAs, and willful defaulters. As a result, PSBs recovered an amount of INR 1,58,259 crore during the financial years 2015-16 to 2017-18. To avoid recurrence and for stringent recovery, the Insolvency and Bankruptcy Code,2016 (IBC) has been enacted to create a Unified Framework for resolving insolvency and bankruptcy. Further, as per the RBI's directions, cases have been filed under IBC in the National Company Law Tribunal (NCLT) in respect of 39 large defaulters, amounting to about INR 2.69 crore funded exposure (as per December 2017). Apart from this, with an aim to resolve the problem of the stressed assets of public sector banks, the government unveiled another strategy, called 'Project Sashakt' strategy is designed to address bad loans and strengthen credit capacity, credit culture and portfolio of PSBs. Project Sashakt sketches the resolution of bad loans, depending on their size. It includes an SME approach , a bank-led approach, an AMC, or alternate investment fund (AIF)- led approach, an NCLT or IBC-led approach and asset trading platform approach. The above approaches envisaged in project Sashakt will not only reinforce the resolution process but can also go a long way in eventually creating a sensitive credit culture.

CONCLUSION

Thus it is concluded that an increase in the non-performing assets is not healthy for any bank. Bank loans turned sour not just because of the slowing economy and high interest rates, but also because of slow government clearances to projects. According to recent CRISIL report , the gross NPAs of banks are slated to increase from 3.3% in march 2013 to 4.1% by march 2014. From this data, the pertinent question is, will the banks and the financial institutions shed their jaundiced view towards declaring the accounts as NPA and recovery of their dues coming under the category of NPA and will they take a new and pragmatic and practical approach of focusing on "efficiency and fairness" and taking a view of genuine difficulties while coming down on mismanagement or fraud. The answer is a Big No if the present approach and attitude of the banks and financial institutions are taken into consideration in the matter of recovery of dues and financing.As this brief comparative study suggests, PSBs urgently need to address attitudinal problems to tackle the issue of rising NPAs. More efficient borrower screening , credit appraisal and post-disbursement supervision would go a long way towards improving the commercial performance of these banks. Accordingly, in 2017-18, the GOI decided to implement a proposal to " resolve" what was being presented as one of the leading challenges then facing the Indian economy i.e. large NPA on the books of the banks, especially PSBs. O The recapitalization plan, first announced in October 2017, involved infusing rupees 2,11,000 crore of which new equity into PSBs , of which 1,35,000 crore would be new money from the government, financed with recapitalisation on bonds. Another rupees 18,139 crore was the balance due under rupees 70,000 crore. Indradhanush plan initiated in August 2015 and funded from the govt's budget. The remaining rupees 57,861 crore was to be mobilized by the banks from the market. The plan was to clean up the books of the banks to a significant extent, enabling them to adhere to the RBI voluntary decision to get banks to meet Basel III type capital adequacy norms by 2019.thus effective Recovery Management of NPAs as an organizational goal pursued in a missionary Zeal is a must to survive global competition. Any innovation in this area brook no delay for a sound and healthy growth of Financial system in general and Banking sector in particular in the country.

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TECHNOLOGICAL TRENDS IN BANKING

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ABSTRACT

There has been a lot of restructuring and reshaping of the banks in the past decade as India too has groomed itself for a more visible presence on the global platform. The arrival of foreign banks, setting up of a number of private sector banks and the measures of deregulation and advances in information technology during the last decade have brought about significant changes in the operating environment for banks operating in India. Information and Communication Technology is the major advent in the field of technology which is used for access, process, storage and dissemination of information electronically. Faced with the threat of competition from the foreign banks and new private sector banks, the public sector banks employed a number of measures to improve the operational efficiency, meeting customer expectations and reduction operating costs. These includes going for core banking solution based operations, introduction of electronic based multiple service delivery channels, diversification of activities etc. The banking system India is fast growing with the use of technology in the form ECS, RTGS, Mobile banking, Telephone banking, NEFT, ATMs, Retail Banking, Internet Banking, Card based payment system etc. and many more value added services. The major impetus for financial innovation has been globalization of financial system, deregulation, and great advances in technologies. In increasingly integrated financial system facing higher volatilities, more competition, and wide varieties of risk, financial innovations has become an essence to provide new products and strategies to meet different requirements of participants in financial system.

Keywords: Technology Innovations, Public Sector Banks, Private Sector Banks

1. INTRODUCTION

Information technology is one of the most important facilitators for the transformation of the Indian banking industry in terms of its transactions processing as well as for various other internal systems and processes. The Reserve Bank of India can be broadly classified in to the following three categories: a) public sector banks (State bank of India and its associates and nationalized banks), Private sector banks (old and new), foreign banks. The Indian financial system comprising the commercial banks, the financial institutions and the capital market, has undergone a very rapid transformation in the past three decade. The various technological innovations in the banking and financial sector are ECS, RTGS, EFT, NEFT, ATMs, Retail banking, Debit and Credit cards, Internet banking, mobile banking and many more value added services. Information technology and the communications networking systems have revolutionaries the working of banks and financial entitles all over the world.

OBJECTIVES OF THE STUDY

1. To find out the scope IT in Banking Sector
2. To understand the technological innovations in banking.

2. STATUS OF IT IN BANKING SECTOR

The technological evolution of the Indian banking industry has been largely directed by the various committees set up by the RBI and the government of India to review the implementation of technological change. Today banking in India is known as innovative banking. Information and communication technology has given rise to new innovations in designing new products and services. Banking through internet has emerged as a strategic resource for achieving higher efficiency, control of operations, and reduction of cost by replacing paper based with automated processes leading to higher productivity and profitability. The Electronic Banking Group of the Basel Committee on Banking Supervision (2003) has noted that continuing technological innovation and competition among the existing banking organisations and new entrants have allowed for a much wider array of banking products and services to become accessible and delivered to retail and wholesale customers through an electronic distribution channel collectively referred to as e-banking. Some of the recent IT devices may be described as follows:

i) Automated Teller Machine (ATMs)

The introduction of ATMs in banks has transformed banking by providing banking services Any Time Any Where to the customers. According to the latest data released by National Payments Corporation of India (NPCI), the total number of ATMs in the country is now 1,04,500 till October. Of these, 61,500 - or 59 per cent - belong to the public sector banks and State Bank of India Group, the NPCI said. Private sector and

foreign banks together have installed 41,800 ATMs, or 40 per cent. The remaining one per cent or 1,150 ATMs are of small, co-operative or rural banks.

ii) Real Time Gross Settlement System

RTGS was introduced in India in March 2004. RTGS is operated and maintained by RBI. RTGS stands for Real Time Gross Settlement System. It is a fund transfer mechanism where transfer of money takes place from one bank to another on a real time and on gross basis. This is fastest possible money transfer system through banking channel. Through this system, the amount is transfers within two hours.

iii) National Electronic Fund Transfer System

It has been in existence since 1997 covering 15 centers where the RBI manages the clearing houses. In order to increase the coverage of the scheme and to provide for funds transfers in a quicker manner, a variant of EFT called the special EFT was introduced with effect from APRIL, 1 2002. SEFT is available across branches of banks that are computerized and connected through a network so that electronic massages can travel to the receiving branch in a straight through manner.

iv) Electronic Clearing Services

ECS is a retail payment system. It is used to make bulk payments/receipts. This Facility is generally used by company's and government departments for paying/receiving bulk payments.

v) Card Based Payment System

It is an electronic card issued by a bank which allows the customer to access their account to withdraw cash or pay for goods and services by using Debit card. The popularity of card based transactions, especially debit and credit has increased significantly in recent years. The increased use of cards and their growing share in the payment system turnover highlights in the need for introduction of suitable regulatory measures. During the year 2010-11, the number of debit cards grew at the rate of 25 percent over the previous year. Nearly three fourth of the total debit cards were issued by PSBs at the end of March 2011.

Credit card is a financial instrument which can be used more than once to borrow money or buy products and services on credit, banks, and retail stores.

vi) Internet Banking

As per the findings of Internet and Mobile Association of India (IAMAI), about 23 percent of the online users prefer internet banking as a banking channel in India. It aimsto provide anywhere any time banking. The services such as obtaining account statement, request for issuing cheque book, demand draft, stop payment of a cheque and transfer of funds from one account to another account of the account holder.

vii) Phone and Mobile Banking

Telephone banking refers to the access of account, transfer funds, summary sheet and other banking services through dialing one telephone number. In case of mobile banking, the banking services are provided to the customers having the credit card account with bank. In mobile banking the services are provided by the association of banks and cellular service providers through SMS.

viii) Society for Worldwide Interbank Financial Telecommunications (SWIFT)

SWIFT as a cooperative society formed in1073 with 239 member banks from 15 countries. It provides highly cost effective, reliable, secure and rapid mode transmitting financial messages worldwide. The network was upgraded in 1980s and its revised version is SWIFT II. SWIFT provides 24x7 hour services to the financial institutions and the selected range of its users.

3. CONCLUSIONS

Information Technology offers immense opportunities to significantly improve efficiency and effectiveness of the functioning the banks. IT will be tool not only to improve the operational efficiency of the banks but also to serve customers better which in any way is the ultimate aim and objective of the banks. Banks are not only providing traditional services like deposits, payments, and loans but also there is advancement in the facilities like RTGS, EFT, ECS, Net banking, Mobile banking etc. The banking sector is transforming to provide better services and more facilities to the consumers and this also may be the reason for the increase in competition among the public sector and private banks. Public sector banks must pay attention on their functioning to compete with private sector banks.

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PYTHON AND ITS USAGE IN VARIOUS PLATFORM

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ABSTRACT

Python is general purpose, dynamic, powerful high-level, object-oriented programming language created by Guido van Rossum . In this paper introduce how python programming is useful in various field. Python is the most fastest growing programming language today. Python is easy to learn. It is used in web applications ,Desktop applications, Software development, Scientific and Numeric, Business application, Console Based Application, Audio or Video based applications ,3D CAD Applications, Enterprise Applications, Applications for images, game programming.

Keywords: Python ,Programming languages , Real world programming. web applications, Desktop applications, Software development ,Scientific and Numeric, Business application, Console Based Application,Audio or Video based applications,3D CAD Applications ,Enterprise Applications ,Applications for images ,game programming.

1. INTRODUCTION

In this paper, we are going to introduce the applications of Python programming language. Python is a general-purpose, high-level programming language which is widely used in the many different fields for various purpose. Python used to build custom applications without writing additional code . Python supports automatic memory management. Python is supports many operating systems like windows,MAC,Linux etc.

2. HISTORY OF PYTHON

Python found in the late 1980s.

The Python established in the December 1989 by **Guido Van Rossum** at CWI in Netherland. Python 1.0 was released in 1994 with many new features like map,filter,lambda and reduce.

On 16 October 2000,Python 2.0 was released with new features including cycle-detecting garbage collector,list comprehensions and Support for Unicode.

Python 3.0 (also called "Py3K") was released in 3 december 2008. It used to rectify fundamental flaw of the language. Python 3 is not backwards compatible with Python 2.x.

3. FEATURES OF PYTHON

- **Python is easy to learn and simple.**
Python is high level programming language and user-friendly.it is easy to learn .
- **Python is portable**
Python Program can be run on different platform like windows,Mac,Linux.
- **Python is open source**
Python is open source means there are no charges for copying,distributing.
- **Python supports other technologies**
It can support COM, .Net, etc objects. Extensible and Embeddable.
- **Interpreted language**
In Python ,Interpreter executes code line by line .it makes debugging easy.
- **Cross-platform language.**
It run equally on different platform such as Mac,Linux and windows.

4. PYTHON APPLICATIONS

- **Web Applications**
Python is used to develop web application.it provides different frameworks such as Django,Pyramid.
 - **Desktop GUI Applications**
Python Provides Tk GUI library to develop user interface desktop application.
 - **Software Development**
Python is useful in software development process.it used for bulid control and management.
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- **Enterprise Application**

Python used to develop enterprise application and business application.

- **Console Based Application**

Python is used to develop console based application.example:IPython

- **Audio or Video based applications**

Python is used to develop multimedia application.example:Timplayer,cplay etc.

5. DISADVANTAGES OF PYTHON ARE

- **Speed is slow**

Python is slower than other language like C and C++.

- **Mobile Development**

Python is not used for developing mobile applications.

- **More Memory Space**

It occupy more memory space for different data types.

- **Runtime Errors**

Since python is dynamic programming language.it require more testing ,it shows error only runtime.

6. PYTHON CAN BE USED TO WRITE A WIDE VARIETY OF PROGRAMS

- **System programming**

Python is portable programming language.user can run their code in any operating system.

- **Graphical User Interface (GUI)**

Python uses Tkinter module for developing Graphical User Interface .it contain many widget like Button ,Canvas ,Checkbutton, Combobox,Entry,Frame,Label , Labelframe ,Listbox, Menu, Menubutton ,Message, Notebook ,Tk_optionMenu ,Panedwindows, Progressbar, Radio Button, Scale, Scrollbar, Separator, Sizegrip, Spinbox,Text and Tree view.All this widget are used to create GUI Application in Python Programming.

- **Network programming**

Python is used for network programming.Python standard library provide support for network protocols,data encoding and decoding .

- **Components integrity**

Python is able to make an integrated connection among its codes and other components. Example : Swing and SIP,

- **Database programming**

Database is a collection of information.database connection means database server and client software communicate with each other.Python support database programming.Python database API(Application Programming Interface) support a wide range of database servers such as mSQL, MySQL, PostgreSQL, Microsoft SQL Server 2000,Interbase,Oracle and Sybase etc.

- **Other Programming application**

Python used in many other programming areas.for example ,PyGame tool is used for game programming.PIL tool is used for Image Processing.PyRo is used for game programming .Python used in artificial intelligence,network simulation and shell programming.different tools of python is used for different purpose.Python is suitable for any programming language . Large amount of websites and applications is using Python.

7. PYTHON USERS

Python used by many corporations for different purpose. Some of them are enlisted:

- In Google web search engine python language is used.
- In Youtube ,video sharing services make use of Python.
- Dropbox storage service codes both its server and client software primarily used python.
- The Raspberry Pi single board computer used python for its educational language.

- BitTorrent peer-to-peer file sharing system used python.
- For specific programming task ,NASA uses python programming.
- The NSA used Python for cryptography and intelligence analysis.
- Netflix and Yelp used python for Software Infrastructures.
- ESRI uses Python for popular GIS mapping products.
- NASA, Los Alamos, Fermilab, JPL used Python for scientific programming tasks.
- iRobot used Python for develop commercial robotic vacuum cleaners.
- NSA used Python for cryptography and intelligence analysis.
- IronPort email server product used Python for do its job.
- One Laptop Per Child (OLPC) project used Python for user interface and activity model.
- Industrial Light & Magic, Pixar used Python in the production of movie animation.
- JPMorgan Chase and UBS, Getco, and Citadel used Python for financial market forecasting.
- Intel and cisco used python for hardware testing.
- ESRI used Python for popular GIS mapping products.
- Many website like Youtube,Quora,Instagram,Pinterest,Spotify,Flipkart,slack ,Uber ,Cloudera and Zenefits used Python language.

8. FUTURE OF PYTHON

According to Tiobe Index for October 2017,Python is the 5th most popular Programming language after Php ,Swift ,javascript, Perl,Ruby ,R. Today, Python used for web development.many website used python language. In future Python has become more demanded language for backend and front end. Python language syntax more simple and easy as compared to other.

9. CONCLUSION

In this paper,we Concluded that Python is highest growing real world Programming language.This paper discussed the History of Python,features of Python ,Python applications,types of programming supported by Python.According to this paper python is fast,powerful ,open source,portable,easy,readable and understandable language.In many software development and web development python programming is used.The paper also discussed about the application of Python.Python is used in many popular corporations for various purpose.

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GREEN TECHNOLOGIES IN 21 CENTURY

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ABSTRACT

Information Technology has influenced the corporate world, society and an entire human life remarkably. As a result of this IT infrastructure is growing rapidly. It consumes huge amount of electricity which is responsible for greenhouse gas (GHG) emission. IT industry is creating lot of environmental problems. Green IT can be seen as savior of these environmental issues.

Keywords: Green technologies, 3R of Green IT

INTRODUCTION

We are living in world of Technology. There are various types of technologies which has affected the society like Nano Technology, Internet Technology, Space Technology and Telecommunication Technology. In order to live comfort and sustain life in the society, we have to worry about sustainability of our environment. To understand how technology is related with environment issues and problem solver we should first understand Technology.

What is Technology?

Technology is a body of knowledge devoted to creating tools, processing actions and the extracting of materials. The term 'Technology' is wide, and everyone has their way of understanding its meaning. We use technology to accomplish various tasks in our daily lives, in brief; we can describe technology as products and processes used to simplify our daily lives. We use technology to extend our abilities, making people the most crucial part of any technological system.

What is Green IT?

Green IT refers to the study and practice of using computers and IT resources in a more efficient and environmentally responsible way. Computers and computing eat up a lot of natural resources, from the raw materials needed to manufacture them, the power used to run them, and the problems of disposing them at end of life.

Goals of Green Information Technology

There are various goals of green information technology, most notably at the design and manufacturing stages. In all cases, four main aims are:

- To cut down to as little as possible the amount of energy used.
- To minimize the inclusion of harmful materials.
- To use as many biodegradable materials as possible.
- To extend as far as possible the life of the equipment.

Three Rs in Green IT

There are three Rs of Green IT are:

Reuse

We should upgrade existing computers and reuse them. Reusing computers can reduce environmental effects caused by computer production and usage.

Refurbish

Refurbishing is replacing some old parts and upgrading computer according to requirement. We can refurbish our computers instead of purchasing new computers.

Recycle

Computers are to be recycled and disposed in environment friendly way. We should hand over non reusable computers to recognized electronic recyclers and e-waste collectors.

IT for Enhancing Environmental Sustainability

Environmental sustainability is ability to maintain natural environment that produce renewable resources like water and solar energy to maintain living conditions for people and other species.

We can make use of IT resources efficiently to enhance environmental sustainability.

- **Virtualization:** Virtualization allows dynamic consolidation of workloads .Some of the highly utilized servers will process workloads while remaining servers are kept in low energy sleep state until needed.
- **Cloud Computing:** In cloud computing, cloud resources are shared and reallocated as per demand and requirement of users. This approach maximizes computing power and reduces cost of resources by using less power, rack space and air conditioning.
- **Server Power Management:** The most power consuming component of server is CPU .CPU energy efficient technique are used to increase computing power of CPU.
- **Data Center Management:** Data center is an integral part of IT industry .It is central repository for data storage and management. It consume huge amount of electricity and emits CO₂. Wind energy and Gas turbines can be used to satisfy energy requirements of data centers.
- **Consolidation:** Data center consolidation is combing number of servers into a compact cost efficient system. It physically consolidates multiple data centers into large single effective data center that runs on fewer resources.

APPLICATIONS OF GREEN TECHNOLOGIES

Three are various applications of Green IT.

- 1) **Sustainable Energy:** Nanotechnology innovations in renewable energy solve entire energy requirement of mankind. Demand for energy on earth is forecasted as increasing 50% by the year 2025 which is going to satisfy by fossil fuels. Our fossil fuel consumption is going to become double by the year 2025. This will lead to increase CHG and emission of CO₂ which is harmful to environment as whole. Nanotechnology will help to solve our need for energy solutions through more efficient lighting ,fuel cells, Hydrogen storage, solar cells, locally distributed power generation etc. Nanotechnology as green technology supports large scale renewable solar energy and wind energy production and distribution at low cost without any environmental degradation, contributing sustainable energy solution.
- 2) **Agriculture and Food:** Green Technology should be efficient, practical, cost effective and free from pollution. The sustainability factor should be looked at the ability of agricultural land to maintain acceptable levels of production over a long period of time ,without degrading the environment. Green technology should seek to maximize food production within constraints. Some of the opportunities towards sustainable agriculture are a) Agro-Forestry b) Soil Conservation c) Water quality d)Marketing of green products e)crop diversity f) Wetland g) Nutrient management h) Cover crops. Competitive and sustainable innovations in agriculture are expected to solve productivity in agriculture and food problem.
- 3) **Green building :** Green Technology with the help of Nano technology offers interesting new opportunities in the construction sector providing green solutions through the development of energy ,efficient, ultra high strength ,extra durable, extremely lightweight construction materials. Nano technology is recognized as a revolutionary green technology that can help address key needs of green buildings relating to energy , environment and health aspect. Nano –modification of cement is an emerging field. Synthesis and assembly of material in the nanometer scale offers the possibility for the development of new cement additives such as novel super-plasticisers and nanoparticles.
- 4) **Education :** Green higher education is all about creating of knowledge ,skills, attitudes and values related to the environment. Higher education plays a vital role in creating and developing human capital. This resource that is created should not just look at the economic point of business but societal aspect as well. The demands for green jobs are on high. It is more needed in higher education because of the dependence of environment with the economy. The system ,processes ,structures, procedures and devices to learn green are eco-friendly ways. Green can be used in large way when it is case of open and distance learning.
- 5) **Food production and Food processing:** Food is basic need for all living beings. Finding a balance food supply and demand in a manner that is sustainable and which ensures the long term survival of human beings is very much crucial. Green technologies in food and food processing sector have challenges associated with use of technologies which reduce environmental bad effects. Food processing is a diversified sector which encompassing the use of various raw materials, processes and end products and need special attention for maintaining quality ,safety and nutritional properties through Green technology. Various technologies like Bio preservation, Electromagnetic wave heating, Electric and magnetic fields, No thermal technologies etc have potential opportunities to reduce process-induced toxins in the food and environmental impact of food production and processing.

CONCLUSION

We are living in era of technology. Green Technologies in 21st Century playing a very crucial role in all aspects of life. In order to sustain comfort life of people in the society ,we need to be follow sustainability of the surrounding environment .In this paper , we propose how the technologies can be made sustainable by adding green component so that we can overcome environmental degradation and converted into green technologies to provide environment for future generations. The paper also discuss the application of Green Technologies for Agriculture and Food , Green Building, Sustainable Energy, Education , Food Production and Food processing.

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ENTREPRENEURSHIP AND SUSTAINABLE DEVELOPMENT "A STUDY ON SUSTAINABLE DEVELOPMENT A NEW PARADIGM AMONG ENTREPRENEURS AND RESTRAINTS OF SUSTAINOPRENEURS"

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ABSTRACT

Sustainable development is development that fulfils the needs of the present, without agreeing on the skill and ability of future generations to meet their own needs. The concept of sustainable development can be defined in many other ways, but it is a core approach to development that looks to balance challenging needs against an awareness of the environmental, social and economic limitations we face as a society. Usually, development is motivated by one particular need, without fully considering the wider or future impacts. Sustainability is an aspirant to be the accentuating factor to give even more leverage to forces emerging from world of business activities to contribute sustainability. Sustainability is an emerging issue as society is looking for solutions leading to sustainable development. Sustainability can help to resolve these issues and challenges. The purpose of this study is to investigate the effect of individual entrepreneur sustainability orientation. Hoping to get the result of this study showing sustainability orientation has a positive relationship with opportunity recognition and entrepreneurship intention related to. This study would suggest implications to entrepreneurs on how to balance sustainability and entrepreneurship and promote sustainability entrepreneurship

Keywords: Entrepreneurship, Sustainability, Sustainable world, Economic system, Stakeholders. Restraints

INTRODUCTION

As global environmental demolition and social issues became grave, the whole world began to worry about how to approach these problems. As a way to solve the problems, sustainable entrepreneurship has attracted attention, competing that entrepreneurs can contribute to solving problems caused by environmental degradation by creating new, sustainable products and services. Recently, studies have emerged that link entrepreneurship to sustainability and cover the broad concept of sustainable entrepreneurship, including financially viable, ecological and social values.

Sustainable entrepreneurship can be seen as a combination of two key concepts, sustainability and entrepreneurship. For Sustainability environmental and social problems such as climate change and environmental pollution can create another entrepreneurial opportunity to solve the problem. Socially, new inventions of entrepreneurs can be tools for solving environmental and social problems, and sustainable enterprise and society can be realized. However, Research on sustainable entrepreneurship has generated wide interest. Entrepreneurship is concerned with the identification, evaluation and exploitation of opportunities. Certain entrepreneurial activities cause pollution, pose risk and damage to nature and human health.

LITERATURE REVIEW

Sustainable entrepreneurship is "an understanding how opportunities to bring into existence future goods and services are discovered, created, and exploited, by whom and with what economic, psychological, social and environmental consequences". This definition combining the environmental consequences with the definition of entrepreneurship established by Venkataraman.

Sustainable entrepreneurship is based on and related to conventional entrepreneurship, environmental entrepreneurship and social entrepreneurship (Binder and Belz, 2015). Since these studies would provide a better understanding of how the field of sustainable entrepreneurship and their interconnection.

RESEARCH METHODOLOGY

A Research Methodology a scientific framework for conducting some research investigation. The research should specify the approach with respect to the proposed study.

In this study Descriptive Research Design has been adopted. The Descriptive Research portrays accurately the characteristics of a particular individual, situation or a group.

OBJECTIVES OF THE STUDY

- To Identify the level of awareness among the various industrial Entrepreneurs towards Sustainable Development

- To Examine the various issues and challenges associated with Sustainopreneurs from various industries
- To Identify the satisfaction and Success rate with respect to Sustainopreneurs from various industries for their choice of choosing sustainable entrepreneurship

HYPOTHESIS FOR THE STUDY

Ho1: There is no significant differences among the opinions given by various Industrial entrepreneurs about the awareness on sustainable development

Ha1: There is a significant differences among the opinions given by various Industrial entrepreneurs about the awareness on sustainable development

Ho2: There is no significant differences among the opinions given by various Industrial Sustainopreneurs about the challenges they face towards their choice of choosing sustainable entrepreneurship

Ha2: There is a significant differences among the opinions given by various Industrial Sustainopreneurs about the challenges they face towards their choice of choosing sustainable entrepreneurship.

Ho3: There is no significant differences among the opinions given by various Industrial Sustainopreneurs about the satisfaction and success rate towards their choice of choosing sustainable entrepreneurship

Ha3: There is a significant differences among the opinions given by various Industrial Sustainopreneurs about the satisfaction and success rate towards their choice of choosing sustainable entrepreneurship

DATA COLLECTION

Both Primary and secondary data were used for this study. The proposed study is a Descriptive Study based on the Probabilistic Method,. The required primary data have been collected by means of structured Questionnaire administrated to the entrepreneurs from various Industries and Sustainopreneurs. To clarify certain concepts of the study, secondary data have been collected from published reports, standard text books and reputed journals.

SAMPLING

Sampling truly representative of population characteristics without any bias so that it may results in valid and reliable conclusion. The sample size for this study is units comprising of entrepreneurs of some industry. Convenience sampling method is used for data collection. The data was collected from the 100 Various Industry respondents from 1th to 20th February 2019.

TOOLS FOR DATA COLLECTION AND ANALYSIS

Structured Survey Questionnaire is used for collecting data. Data Analytical software used in this study is Ms Excel and SPSS 24.

DATA ANALYSIS

For the same we have conducted the surveys with few questionnaires and tested with CHI SQUARE ANALYSIS, ANOVA, CORRELATION Followed by diagrammatical representations

PEARSON CHI-SQUARE TEST AND ANOVA FINDINGS FOR THE GENERAL ENTREPRENEURS

1. Gender: P value is observed to be more than 0.05 in most of the cases that shows there is no significant differences in the opinions given by Male and Female Entrepreneurs from various industries about the awareness on sustainable development.

2 Industries: P value is observed to be more than 0.05 in most of the cases that shows there is no significant differences in the opinions given by Entrepreneurs from various industries about the awareness on sustainable development

PEARSON CHI-SQUARE TEST AND ANOVA CONDUCTED FOR SUSTAINOPRENUERS

1. Gender: P value is observed to be more than 0.05 in most of the cases that shows that there is no significant differences among Male and Female Sustainopreneurs about the challenges they face towards their choice of choosing sustainable entrepreneurship

2 Industries: P value is observed to be more than 0.05 in most of the cases that shows that there is no significant differences among various industrial Sustainopreneurs about the challenges they face towards their choice of choosing sustainable entrepreneurship

3. Industries: P value is observed to be more than 0.05 in most of the cases that shows that There is no significant differences among the opinions given by various Sustainopreneurs about the satisfaction and success rate towards their choice of choosing sustainable entrepreneurship

VARIOUS INDUSTRY ENTREPRENEURS OPINION ABOUT SUSTAINABLE DEVELOPMENT

1. Has your company ever been cited for non-compliance of an environmental or safety issue? Please check the item that applies.

Chi-square tests			
	Value	df	Asymp. Sig.
Pearson Chi-Square	6.198 ^a	4	.185

2. Industry: Does your company have an environmental policy statement? Please check the items that apply.

Chi-Square Tests			
	Value	df	Asymp. Sig.
Pearson Chi-Square	8.101 ^a	8	.424

3. Industry: Does your company have a Green Transportation Plan for your operation? Please check the items that apply.

Pearson Chi-Square	8.984 ^a	12	.704
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SUSTAINOPRENUERS

1. If your business is under loss what is the reason for that?

Chi-Square Tests			
	Value	df	Asymp. Sig. -
Pearson Chi-Square	18.623 ^a	9	.029

2. Industry: Availability of raw materials for your business

Chi-Square Tests			
	Value	df	Asymp. Sig.
Pearson Chi-Square	6.706 ^a	9	.668

CORRELATION TEST FOR AWARENESS

		Industry:
Industry:	Pearson Correlation	1
	Sig. (2-tailed)	
	N	50
1. What Policies are in place to monitor and manage your supply chain regarding environmental issues? Please check the items that apply.	Pearson Correlation	-.133
	Sig. (2-tailed)	.359
	N	50

		Industry:
Industry:	Pearson Correlation	1
	Sig. (2-tailed)	
	N	50
8. Does your company have web-based materials available documenting your Green initiatives? Please check the items that apply.	Pearson Correlation	.002
	Sig. (2-tailed)	.987
	N	50

CORRELATION SUSTAINOPRENUERS FROM VARIOUS INDUSTRIES

		Industry:
Industry:	Pearson Correlation	1
	Sig. (2-tailed)	
	N	50
11. Tech2logy adopted for your business is	Pearson Correlation	-.161
	Sig. (2-tailed)	.270
	N	49

		Industry:
Industry:	Pearson Correlation	1
	Sig. (2-tailed)	

	N	50
17. Financial condition due to sustainable entrepreneurs	Pearson Correlation	-.170
	Sig. (2-tailed)	.237
	N	50

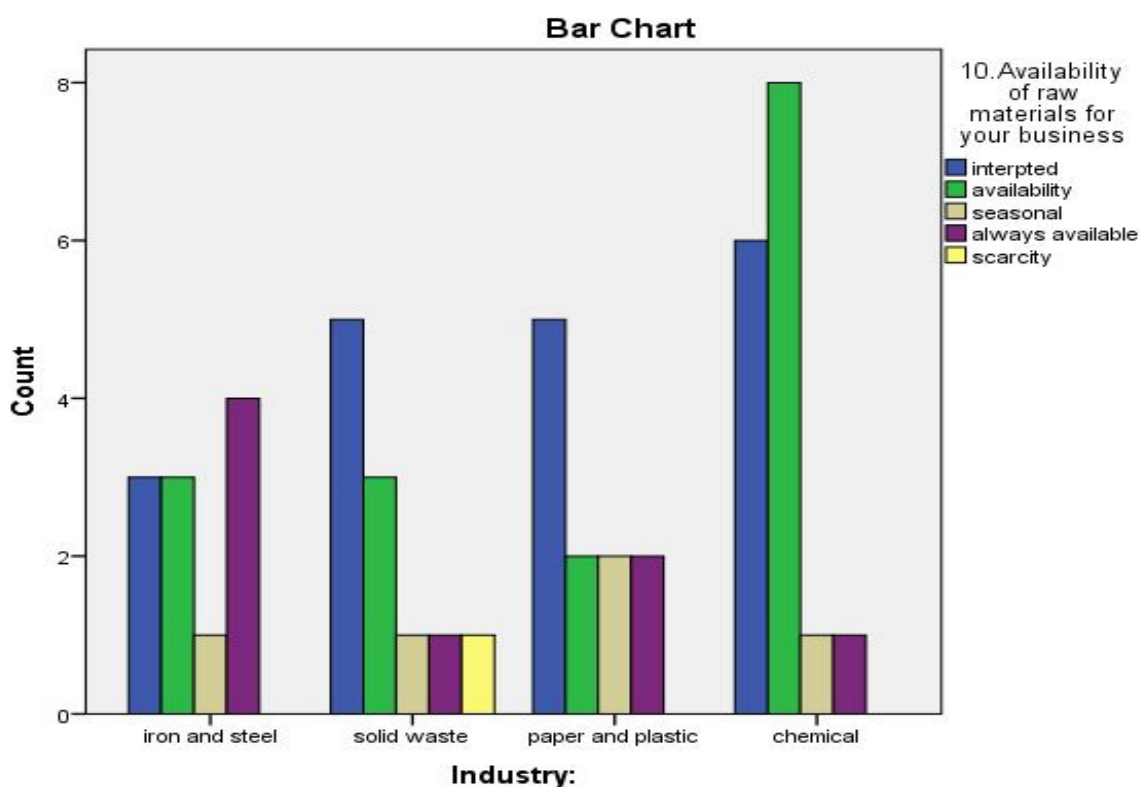
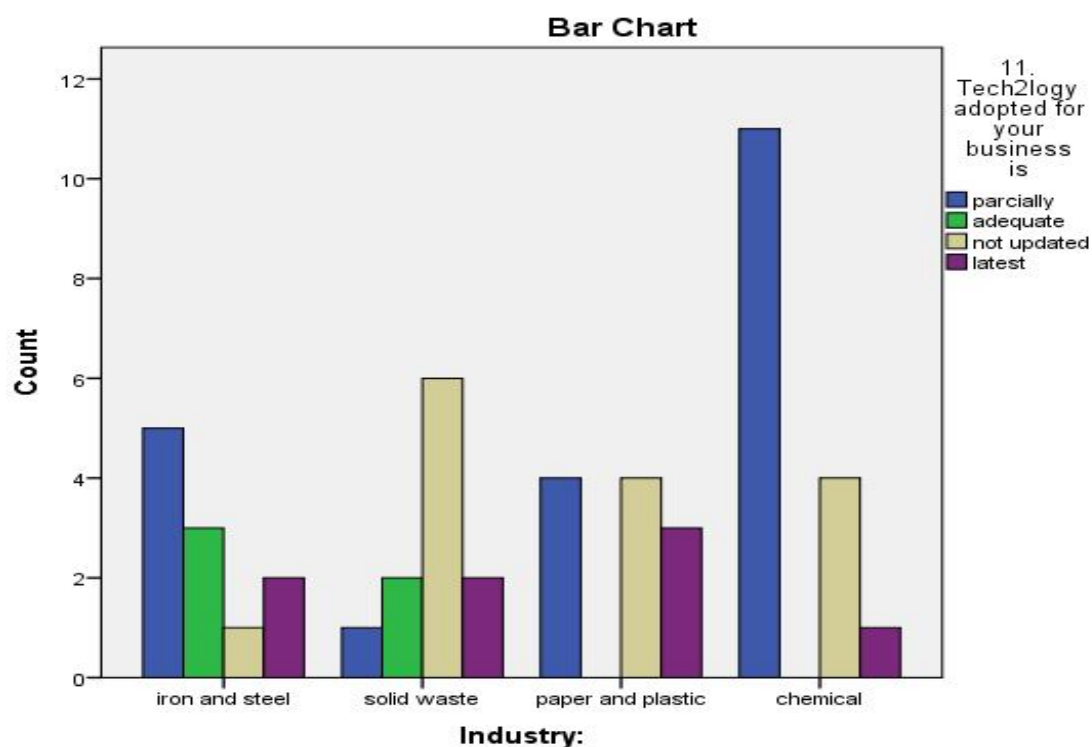
POST HOC TEST AMONG INDUSTRIES

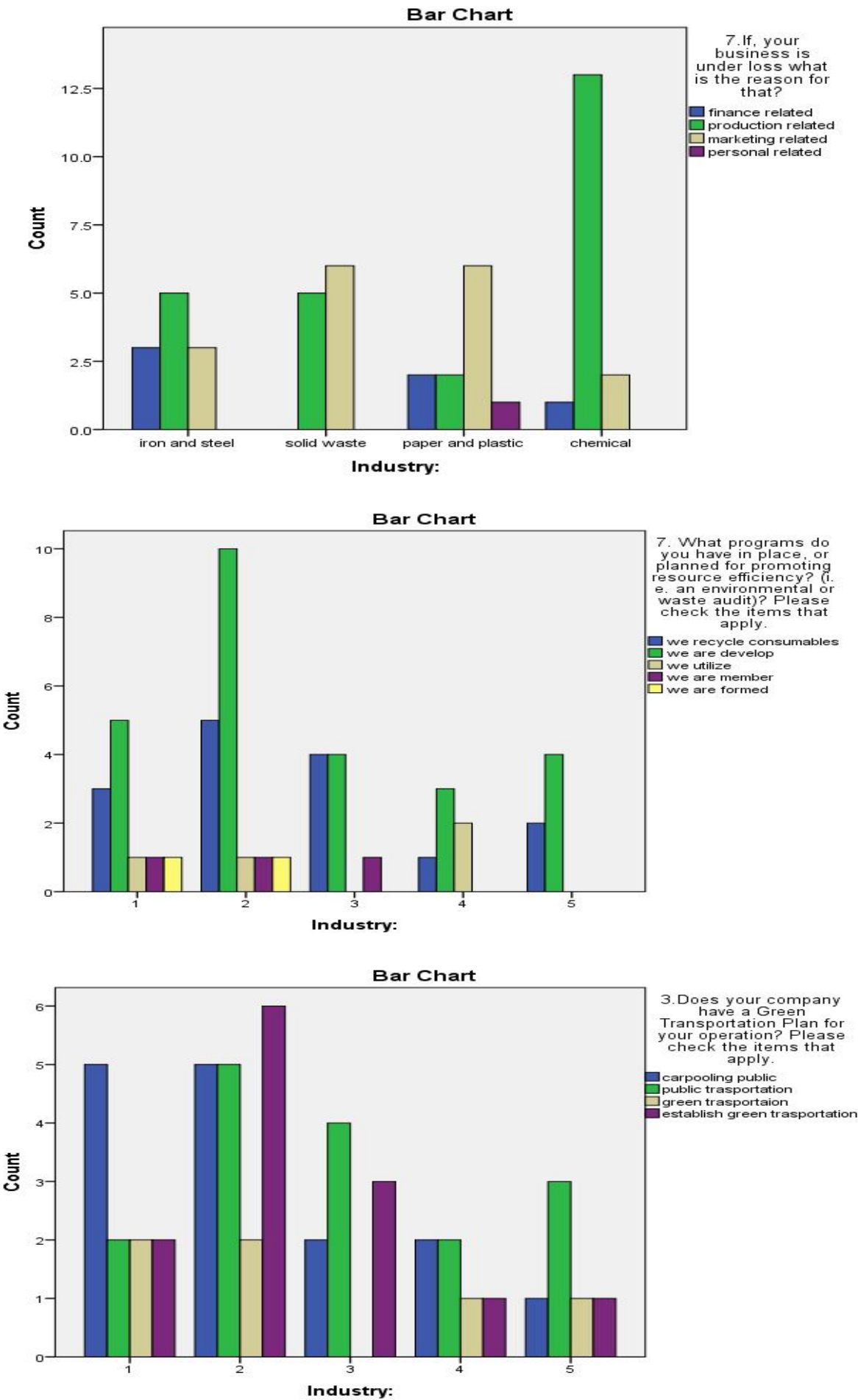
			11. Tech2logy adopted for your business is				Total
			parcially	adequate	not updated	latest	
Industry:	iron and steel	Count	5	3	1	2	11
		% within Industry:	45.5%	27.3%	9.1%	18.2%	100.0%
		% within 11. Tech2logy adopted for your business is	23.8%	60.0%	6.7%	25.0%	22.4%
		% of Total	10.2%	6.1%	2.0%	4.1%	22.4%
	solid waste	Count	1	2	6	2	11
		% within Industry:	9.1%	18.2%	54.5%	18.2%	100.0%
		% within 11. Tech2logy adopted for your business is	4.8%	40.0%	40.0%	25.0%	22.4%
		% of Total	2.0%	4.1%	12.2%	4.1%	22.4%
	paper and plastic	Count	4	0	4	3	11
		% within Industry:	36.4%	0.0%	36.4%	27.3%	100.0%
		% within 11. Tech2logy adopted for your business is	19.0%	0.0%	26.7%	37.5%	22.4%
		% of Total	8.2%	0.0%	8.2%	6.1%	22.4%
	chemical	Count	11	0	4	1	16
		% within Industry:	68.8%	0.0%	25.0%	6.2%	100.0%
		% within 11. Tech2logy adopted for your business is	52.4%	0.0%	26.7%	12.5%	32.7%
		% of Total	22.4%	0.0%	8.2%	2.0%	32.7%
Total		Count	21	5	15	8	49
		% within Industry:	42.9%	10.2%	30.6%	16.3%	100.0%
		% within 11. Tech2logy adopted for your business is	100.0%	100.0%	100.0%	100.0%	100.0%
		% of Total	42.9%	10.2%	30.6%	16.3%	100.0%

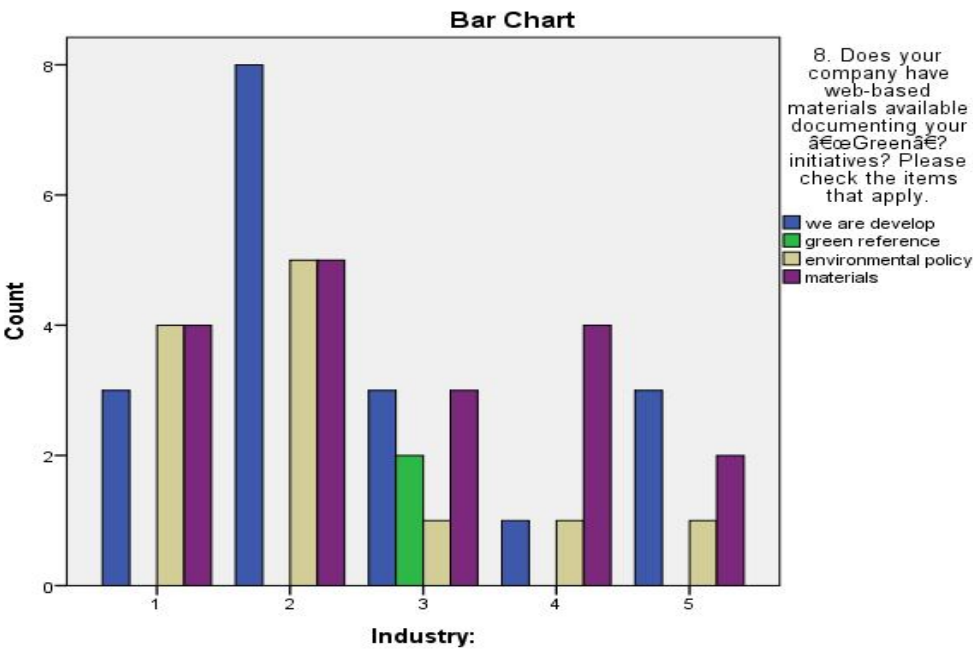
ANOVA TEST FOR SUSTAINOPRENUERS

	Industry:	1. At which age you started your business	Mean	Std. Deviation	N
2 .Geographical area where your industry is located	iron and steel	20 - 25	1.83	.408	6
		25 - 30	2.25	.500	4
		30 - 35	3.00	.	1
		Total	2.09	.539	11
	solid waste	20 - 25	2.17	.408	6
		25 - 30	2.25	.500	4
		30 - 35	3.00	.	1
		Total	2.27	.467	11
	paper and plastic	20 - 25	1.87	.835	8
		25 - 30	2.00	.000	2
		30 - 35	3.00	.	1
		Total	2.00	.775	11
	chemical	20 - 25	2.00	.408	13
		25 - 30	2.33	.577	3
		Total	2.06	.443	16
	Total	20 - 25	1.97	.529	33
		25 - 30	2.23	.439	13
		30 - 35	3.00	.000	3

		Total	2.10	.549	49
	iron and steel	20 - 25	2.17	.983	6
		25 - 30	2.00	.000	4
		30 - 35	2.00	.	1
		Total	2.09	.701	11
	solid waste	20 - 25	2.50	.837	6
		25 - 30	1.75	.500	4
		30 - 35	2.00	.	1
		Total	2.18	.751	11







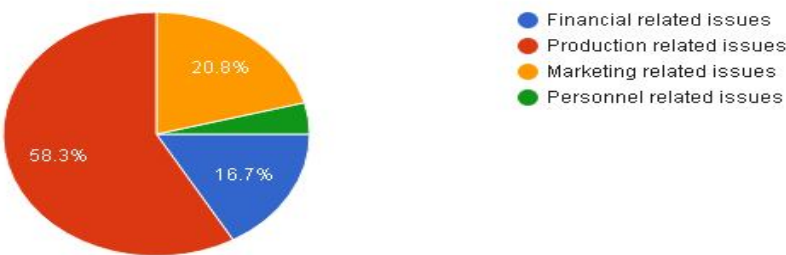
Nature of the entrepreneur

24 responses



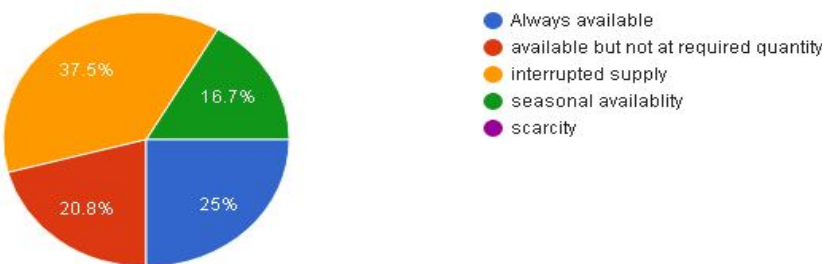
7.If, your business is under loss what is the reason for that?

24 responses



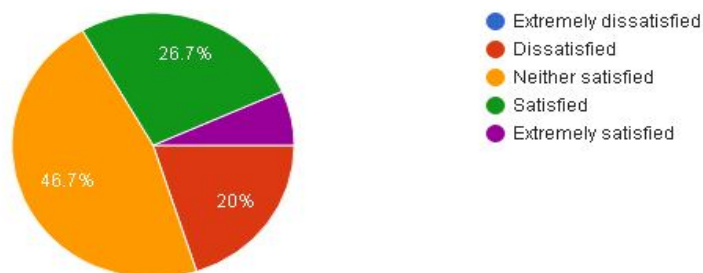
10.Availability of raw materials for your business

24 responses



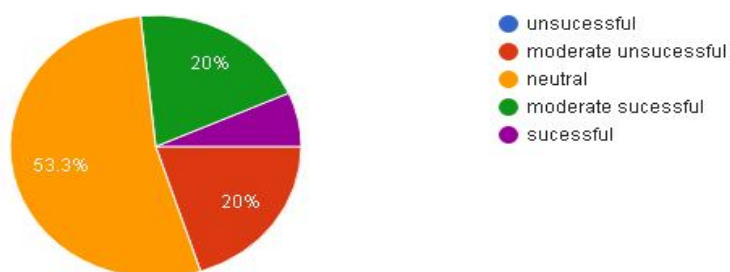
19. Fulfilment of sustainable objectives

15 responses



20. Are you successful sustainopreneurs

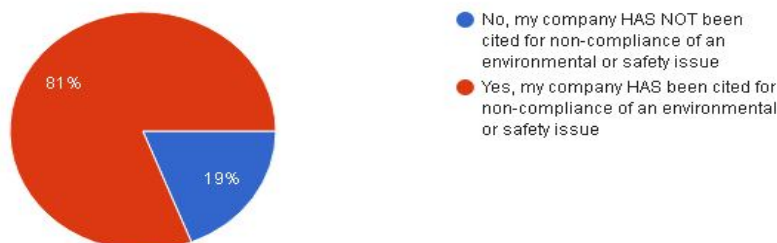
15 responses



GENERAL QUESTIONNAIRE FOR THE VARIOUS ENTREPRENEURS

6. Has your company ever been cited for non-compliance of an environmental or safety issue? Please check the item that applies.

21 responses



FINDINGS

- 81 % of the respondents from selected industries are aware of sustainable practices and they are practicing.
- Most of the respondents from selected industries are using Green Transportation Plan for their operation, initiated various programs to environmental policy statement, non-compliance of an environmental or safety issue, promoting resource efficiency, documenting their initiatives and environmental life-cycle analyse
- 46% of responses are from Iron and steel Sustainopreneurs
- 59% of Sustainopreneurs responded the failure of the business is because of production Issue
- 38 % of the Sustainopreneurs coated that the availability of raw material since it is Seasonal (Solid Waste management)
- There is a positive correlation with the industries about the awareness on sustainable growth
- There is a positive correlation with the various Sustainopreneurs about their challenges among the various industries

- There is a positive correlation with the various Sustainopreneuers about their level of satisfaction among the various industries
- Most of the respondents (Various Entrepreneurs) are aware of sustainable practice and they are implementing environmental friendly measures for their sustainable growth.
- Most of the respondents (Various Entrepreneurs) are feel that sustainable practice are reducing carbon footprint, beneficial measures for their growth.

SUGGESTIONS

- There is a lack of awareness about of sustainable practice in few of the companies specially with service sectors that need to be addressed immediately.
- There should be a enormous support from the Government Banks and other organizations for the sustainopreneuers to sustain with their profits
- Since most of the sustainopreneuers are having a huge problem in promoting their sustainable products that needs to addressed by the stakeholders
- Sustainiporenuers success rate is quiet moderate there should be proper measures to address the same.
- A special reward scheme for sustainopreneuers by providing Green loans for the low interest will motivate and enhance their production.
- Sustainable entrepreneurship has to be included in the curriculum an activity from schools and colleges to enhance the awreness for the healthy and green Ecosystem..

CONCLUSION

Many researchers concur that entrepreneurs have contributed extensively to the world's civilization, country as well as human kind through job creation, exploitation of business opportunities and project innovation.

Sustainable entrepreneurs can take steps as the vehicle for transmitting from current economy to a sustainable economy through entrepreneurship and fill the gaps left by business and government agencies in providing critical social and environmental goods and services by evolving from focusing on only secondary area of sustainability and initialize to take account of all.

This study broadens the understanding of the concept of Sustainopreneurship by identifying the awareness, various challenges, Satisfaction and success factors of the sustainopreneuers in the disruptive world. Beyond all entrepreneurial will, socio-cultural conditions and institutional realities could affects the adoption of sustainable practices in society and environment.

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INTERNET OF THINGS & ITS APPLICATIONS

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ABSTRACT

The Internet of Things (IoT) is the internetworking of physical devices, vehicles and other objects. It consists of an embedded system with sensors, actuators and network connectivity that enable to collect and exchange data. The IoT allows objects to sense and control the integration of physical world into a computerized system. The IoT is a rapidly increasing and promising technology which becomes more and more present in our everyday lives. This results in improved accuracy, efficiency and economic benefit. IoT technology leads to smart homes and smart cities. Considering the high-rate development of IoT technologies and the significant increment in the number of the connected devices, IoT system challenges, aims and market overview were discussed. This has led human to be more secure, comfortable and happier than before. Due to IoT's numerous applications growth of economy has increased. Its applications cover almost all aspects of human life and make the connectivity possible at anytime, anywhere and to anything in near future. Implementation of this type of connectivity opens many research challenges for the research community. This paper mainly focuses on the different domains of future IoT applications and their research challenges.

Keywords: Internet of Things, Smart technologies, Smart devices.

INTRODUCTION

Internet application development demand is very high. So IoT is a major technology by which we can produce various useful internet applications.

Basically, IoT is a network in which all physical objects are connected to the internet through network devices or routers and exchange data. IoT allows objects to be controlled remotely across existing network infrastructure. IoT is a very good and intelligent technique which reduces human effort as well as easy access to physical devices. This technique also has autonomous control feature by which any device can control without any human interaction.

IoT refers to connecting any device (including everything from cell phones, vehicles, home appliances and other wearable embedded with sensors and actuators) with Internet so that these objects can exchange data with each other on a network. It is interesting to note that there is a difference between IoT and the internet, that is the absence of human role. The IoT devices can create information about individual's behaviors, analyse it, and take action i.e. IoT is smarter than internet.

HISTORY

Most other sites trying to explain the history of IoT (Internet of Things) tend to travel a bit too far by listing all the technologies related to it that were invented before the Internet officially became available for the general public to use. You, on the other hand, wouldn't have to go back too far as all you need to do is to take a trip down memory lane in the year 1999.

1999: KEVIN ASHTON, MIT, LIPSTICKS

If there's one person to blame for it all, it would have to be some guy named Kevin Ashton, co-founder and executive director of the Massachusetts Institute of Technology's Auto-ID Center which was then replaced by the more research-oriented Auto-ID Labs in 2003 who coined the term "Internet of Things." The Internet of Things originally came to life as the title of a presentation Ashton made for Procter and Gamble when he was still working there as a brand manager. Before showing his Internet of Things presentation to Procter and Gamble's senior executives, Ashton found out that a shade of lipstick from a line of cosmetics he was assigned to launch got sold out every time he passed by his local store. The people in charge of Procter and Gamble's supply chain then told Ashton that there was plenty of stock of the lipstick shade that supposedly got sold out at his local store. Ashton started to wonder how products can be tracked more accurately so that anyone would know where they are and if they're available at the moment or not. At roughly the same time, RFID or radio frequency identification tags containing bits of data that could be transferred wirelessly were also being developed. The presentation that Ashton made for Procter and Gamble sought to propose how RFID tags can be used to manage the said corporation's supply chain so that the location and stock at hand of each item coming out of it can be more easily monitored.

CHARACTERISTICS AND FEATURES

By framing IoT design with these characteristics, multi-discipline teams can work across their domains to make tradeoffs in interaction design, software architectures, and business models.

- ❖ Together algorithms and compute (i.e. software & hardware) provide the “Intelligent spark” that makes a product experience smart. Consider Misfit Shine, a fitness tracker, compared to Nest’s intelligent thermostat. The Shine experience distributes compute tasks between a smartphone and the cloud. The Nest thermostat has more compute horsepower for the AI that make them smart.
- ❖ Connectivity in the IoT is more than slapping on a WiFi module and calling it a day. Connectivity enables network accessibility and compatibility. Accessibility is getting on a network while compatibility provides the common ability to consume and produce data. If this sounds familiar, that’s because it is Metcalfe’s Law and it rings true for IoT.
- ❖ We tend to take for granted our senses and ability to understand the physical world and people around us. Sensing technologies provide us with the means to create experiences that reflect a true awareness of the physical world and the people in it. This is simply the analog input from the physical world, but it can provide rich understanding of our complex world.
- ❖ Expressing enables interactivity with people and the physical world. Whether it is a smart home or a farm with smart agriculture technology, expressing provides us with a means to create products that interact intelligently with the real world. This means more than just rendering beautiful UIs to a screen. Expressing allows us to output into the real world and directly interact with people and the environment.
- ❖ Without energy we can’t bring our creations to life. The problem is we can’t create billions of things that all run on batteries. Energy harvesting, power efficiency, and charging infrastructure are necessary parts a power intelligent ecosystem that we must design. Today, it is woefully inadequate and lacks the focus of many product teams.
- ❖ As we gain efficiencies, novel experiences, and other benefits from the IoT, we must not forget about safety. As both the creators and recipients of the IoT, we must design for safety. This includes the safety of our personal data and the safety of our physical well-being. Securing the endpoints, the networks, and the data moving across all of it means creating a security paradigm that will scale.

BENEFITS OF IOT

Since IoT allows devices to be controlled remotely across the internet, thus it created opportunities to directly connect & integrate the physical world to the computer-based systems using sensors and internet. The interconnection of these multiple embedded devices will be resulting in automation in nearly all fields and also enabling advanced applications. This is resulting in improved accuracy, efficiency and economic benefit with reduced human intervention. It encompasses technologies such as smart grids, smart homes, intelligent transportation and smart cities. The major benefits of IoT are:

- Improved Customer Engagement – IoT improves customer experience by automating the action. For e.g. any issue in the car will be automatically detected by the sensors. The driver, as well as the manufacturer, will be notified about it. Till the time driver reaches the service station, the manufacturer will make sure that the faulty part is available at the service station.
- Technical Optimization – IoT has helped a lot in improving technologies and making them better. The manufacturer can collect data from different car sensors and analyze them to improve their design and make them much more efficient.
- Reduced Waste – Our current insights are superficial, but IoT provides real-time information leading to effective decision making & management of resources. For example, if a manufacturer finds fault in multiple engines, he can track the manufacturing plant of those engines and can rectify the issue with manufacturing belt.

APPLICATION

Nowadays, we are surrounded by lots of IoT enabled devices which are continuously emitting data and communicating through multiple devices. Moving ahead, let’s discuss the required hardware for building an IoT application. We will also look at the IoT devices which we are using in our day to day life.

1. Smart home

Smart Home clearly stands out, ranking as highest Internet of Things application on all measured channels. More than 60,000 people currently search for the term “Smart Home” each month. This is not a surprise. The

IoT Analytics company database for Smart Home includes 256 companies and startups. More companies are active in smart home than any other application in the field of IoT. The total amount of funding for Smart Home startups currently exceeds \$2.5bn. This list includes prominent startup names such as Nest or AlertMe as well as a number of multinational corporations like Philips, Haier, or Belkin. Home Automation system is the major example in this area. Wemo Switch Smart Plug can be used into a regular outlet which accepts the power cable from any device, and can be used to turn it on and off on hit a button on your smartphone.

2. Wearable

Wearable remains a hot topic too. As consumers await the release of Apple's new smart watch in April 2015, there are plenty of other wearable innovations to be excited about: like the Sony Smart B Trainer, the Myo gesture control, or LookSee bracelet. Of all the IoT startups, wearables maker Jawbone is probably the one with the biggest funding to date. It stands at more than half a billion dollars!

3. Smart City

Smart city spans a wide variety of use cases, from traffic management to water distribution, to waste management, urban security and environmental monitoring, smart environment etc. Its popularity is fueled by the fact that many Smart City solutions promise to alleviate real pains of people living in cities these days. IoT solutions in the area of Smart City solve traffic congestion problems, reduce noise and pollution and help make cities safer.

4. Smart grids

Smart grids is a special one. A future smart grid promises to use information about the behaviors of electricity suppliers and consumers in an automated fashion to improve the efficiency, reliability, and economics of electricity. 41,000 monthly Google searches highlights the concept's popularity. However, the lack of tweets (Just 100 per month) shows that people don't have much to say about it.

5. Industrial internet

The industrial internet is also one of the special Internet of Things applications. While many market researches such as Gartner or Cisco see the industrial internet as the IoT concept with the highest overall potential, its popularity currently doesn't reach the masses like smart home or wearables do. The industrial internet however has a lot going for it. The industrial internet gets the biggest push of people on Twitter (~1,700 tweets per month) compared to other non-consumer-oriented IoT concepts.

6. Connected Car

The connected car is coming up slowly. Owing to the fact that the development cycles in the automotive industry typically take 2-4 years, we haven't seen much buzz around the connected car yet. But it seems we are getting there. Most large auto makers as well as some brave startups are working on connected car solutions. And if the BMWs and Fords of this world don't present the next generation internet connected car soon, other well-known giants will: Google, Microsoft, and Apple have all announced connected car platforms.

7. Connected Health (Digital health)

Connected health remains the sleeping giant of the Internet of Things applications. It can be used for the patient who can't go to doctors, letting them get ECG, heart rate, respiratory rate, skin temperature, body posture, fall detection, and activity readings remotely. The concept of a connected health care system and smart medical devices bears enormous potential, not just for companies also for the well-being of people in general. Yet, Connected Health has not reached the masses yet. Prominent use cases and large-scale startup successes are still to be seen. Might 2015 bring the breakthrough?

8. Smart retail

Retailers are adopting IoT solutions across a number of applications that are improving store operations, reducing theft, increasing purchases through cross selling, enabling precise inventory management, and most importantly enhancing the consumer's shopping experience. The IoT is enabling physical retailers to compete more strongly against the online challengers, to regain lost market share and continually attract consumers into the store, thus making it easier for them to buy more while saving money. It allows you to quickly implement necessary applications for tracking goods with RFID tags, ensure items on-shelf availability, utilize Bluetooth beacons to provide customers with personalized mobile shopping experience, and set up digital signage in the store to attract visitors and help them navigate through your products, discounts, and loyalty programs.

9. Smart supply chain

Supply chains have been getting smarter for some years already. Solutions for tracking goods while they are on the road, or getting suppliers to exchange inventory information have been on the market for years. So while it

is perfectly logic that the topic will get a new push with the Internet of Things, it seems that so far its popularity remains limited. Combining real-time sensor data, GPS & RFID information with environmental data, can provide intelligence to all stakeholders in the ecosystem. Smart Supply Chain aims at bringing awareness for efficient decision-making, by tapping the data gathered by IoT devices and providing detailed visibility of products / items, all the way from manufacturer to retailer. With Smart Supply Chain, clients can not only automate shipping and delivery, but also exactly predict the status of products in real-time, and monitor important details driving the overall productivity of the supply network.

10. Smart farming

Smart farming is an often overlooked business-case for the internet of Things because it does not really fit into the well-known categories such as health, mobility, or industrial. However, due to the remoteness of farming operations and the large number of livestock that could be monitored the Internet of Things could revolutionize the way farmers work. But this idea has not yet reached large-scale attention. Nevertheless, one of the Internet of Things applications that should not be underestimated. Smart farming will become the important application field in the predominantly agricultural-product exporting countries.

CONCLUSION

The Iot has the potential to dramatically increase the availability of information, and is likely to transform companies and organizations in virtually every industry around the world. As such, finding ways to leverage the power of the IoT is expected to factor into the strategic objectives of most technology companies, regardless of their industry focus. The number of different technologies required to support the deployment and further growth of the IoT places premium on interoperability, and has resulted in widespread efforts to develop standards and technical specifications that support seamless communication between IoT devices and components. Collaboration between various standards development groups and consolidation of some current efforts will eventually result in greater clarity for IoT technology companies.

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A STUDY ON WOMEN ENTREPRENEURSHIP CHALLENGES AND PROSPECTS IN NAVI MUMBAI

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ABSTRACT

The educated Indian women have to go a long way to achieve equal rights and position because traditions are deep rooted in Indian society where the sociological set up has been a male dominated one. Despite all the social hurdles, Indian women stand tall from the rest of the crowd and are applauded for their achievements in their respective field. The transformation of social fabric of the Indian society, in terms of increased educational status of women and varied aspirations for better living, necessitated a change in the life style of Indian women. She has competed with man and successfully stood up with him in every walk of life and business is no exception for this. These women leaders are assertive, persuasive and willing to take risks. They managed to survive and succeed in this cut throat competition with their hard work, diligence and perseverance. The present paper endeavors to study the concept of women entrepreneur—Reasons women become entrepreneurs - Reasons for slow progress of women entrepreneurs in India - suggestions for the growth of women entrepreneurs-Schemes for promotion & development of women entrepreneurship in India-Case study of a women entrepreneur in NaviMumbai.

INTRODUCTION

Women entrepreneurship development is an essential part of human resource development. The development of women entrepreneurship is very low in India, especially in the rural areas. Entrepreneurship amongst women has been a recent concern. Women have become aware of their situation. However women of middle class are not too eager to alert their role in fear of social backlash. The progress is more visible among upper class families in urban cities.

The development of women entrepreneurship has become an important aspect of our plan priorities. Several policies and programme are being implemented for the development of women entrepreneurship in India.

In Maharashtra the state Government established one corporation for the purpose of entrepreneurship development among women as well as enabling them to access sustainable livelihoods. The corporation namely *Mahila arthik vikas mahamandal* (MAVIM) has been established on 24th February 1975. MAVIM has been declared as anodal agency by Government of Maharashtra on 20th January 2003, for to implement the various women empowerment programme through self Help for MICRC industries. This corporation has implemented various schemes, training programme which are, Ramai Mahila Shakshamikaran (SCP) NABARD, Swayamisiddha. Tejaswini Maharashtra Rural women Empowerment programme, SHG training programme ect.

Entrepreneurships Development; Entrepreneurships development means all those activities that aim at stimulating the individual for becoming entrepreneur.

Entrepreneurship Meaning; The origin of the basic word Entrepreneurship” is form a French word Enterprendre” where it cradled and originally meant to designate an organizer of certain musical or other entertainment

Women Entrepreneurship; When we speak about the term “Women Entrepreneurships “we mean an act of business creation that empowers women economically increase their economics strength as well as position in society. Hence women –entrepreneurs have been making a considerable impact in all most all the segments of the economy which is more than 25 percent of all kinds of business in India.

REVIEW OF LITERATURE

Nadkarni (1982) in her study; Women Entrepreneurs; A social and economic Study with reference to Pune” has presented her finding on problem and difficulties faced by women entrepreneurs in different industries. She has divided the industries into two group; (i) producer goods industries and (ii) consumer goods industries. The following observation are worth mentioning ;(a) 57% of the respondent accept the statement that women are more suitable for desk work than manual work.

Panandikar (1985) In the study regarding the “Problem and Potential” highlights the problem of women entrepreneurs. She observed that a women is recognized as an entrepreneur only when she earns hard cash or has some monetary gains.

Gaote's (1992) Entrepreneurships Development; Case studies of women It is a observed the study that women can also be equally successful entrepreneurs as men. great majority of women entrepreneur are self-motivated and it is a vocation (call) and voluntary acceptance of entrepreneurship.

Tondon (1994)In his Trends of Women Enterpreneurship in Bombay” has furnished personal details of sample women entrepreneurs. It consist of age group, material status ,Income group and education. Business details of women entrepreneurs included place of business , types of business and investment range of utilization of spare time, self –satisfaction and utilization of knowledge.

STATEMENT OF RESEARCH PROBLEM

The Study attempted to identify the trends of women entrepreneurship in navi Mumbai District in Maharashtra in terms of community, occupation, economic origins and motivation the life framework ,empowerment and identities socio-cultural factors that the entrepreneurship process among women. It was intended to probe into the genesis’ of women entrepreneurship and discover inter relationship between socio-economic origins and entrepreneurship. It was found that the problem faced by women entrepreneurs were multi-dimensional and multi faceted, since women entrepreneurs had to play multiple roles and had to face public prejudice and criticism. Women entrepreneurs faced problem as male entrepreneurs and in addition to that, they had to encounter additional problem because of womanhood.

OBJECTIVE OF THE STUDY

1. To find out present status of women entrepreneur’s in Navi Mumbai district
2. To study the problems and prospects of women entrepreneur’s in Navi Mumbai
3. To find out motivational factor for development of women entrepreneur’s in Navi Mumbai
4. To find out the role of GOM in the development of women entrepreneur’s in Navi Mumbai
5. To suggest the recommendations for development of women entrepreneurship.

SCOPE OF STUDY

Till now very few efforts have been made in exploring the women entrepreneurship development in navi Mumbai. The data available on these aspects are scattered and not very authentic and doesn’t help in accurate decision making. However it is also a fact that more and more women are getting into the domain of entrepreneurial activities. The efforts of Government of India through various welfare organizations, non-Governmental agencies, Ministry of commerce and Industry and hosts of other agencies have started looking after and helping the efforts of women entrepreneurs. From the primary data , it has been observed that more research on women entrepreneurship has been carried out besides western Maharashtra.

HYPOTHESIS OF THE STUDY

1. Women entrepreneurs influence positively on women employment.
2. The role of GOM of western Maharashtra in woman entrepreneurship development is satisfactory.
3. There is need to develop a new success index for women entrepreneurs.
4. Women entrepreneurs are not aware of the availability of existing support system catering to the gender specific needs.
5. woman entrepreneurs possess extraordinary strength and qualities.

(A) Sample Design:

RESEARCH DESIGN

The universe of the study has been confined to woman entrepreneurs in small medium scale industries in Navi Mumbai district. While selecting the women entrepreneurs for detail study this was necessary to obtain the proper representation of all MIDC’S and Nature of enterprise of women entrepreneurs in navi Mumbai. Therefore the total universe is classified Industrial estates wise and as per the nature of enterprise. The percentage of individual selected women entrepreneurs according to location and nature of enterprise ranges from 32 to 100. The stratified random sample method was applied for selection of women entrepreneurs and the simple random sample method was applied for selection of individual woman entrepreneur.

(B) Reference period In order to study the selected women entrepreneurs in navi Mumbai ,the statistical information from the women entrepreneurs’ of the years.i.e. from 2017-2019 will be taken into the consideration.

(i) Primary Data Primary data has been collected by conducting survey of the selected women entrepreneurs in navi Mumbai. The primary data has been gathered through Questionnaire, Discussion and interview and observation and also case study method. For the purpose of collection of primary data a detailed and comprehensive questionnaire was prepared on the basis of set objectives of the study. The questionnaire, includes the section like profile of women entrepreneurs. After preparing the questionnaire ,for testing the response of women entrepreneurs, pilot survey was made for fifteen women entrepreneurs. After pilot survey minor change were made in the questionnaire and then the survey of selected women entrepreneurs will be made.

RESEARCH TOOLS TO BE USED

- 1) Research Design ;Exploratory
- 2) Study Area ;Navi Mumbai
- 3) Sampling Method ;Stratified random sampling
- 4) Population size :No. of women Entrepreneurs' percentage in Maharashtra
- 5) Sample size :near about 50 percentage stratifying in each sector
- 6) Data collection method
 - (a) Primary data : Questionnaire, Case study method , personal interview
 - (b) Secondary data :Web search , books video case studies women
 - (c) Statistical tools
 - 1 Descriptive statics
 - 2 Factor analysis
 - 3 Chi square test

(II) Secondary Data :The secondary data has been collected from the various sources like annual report and record of the Navi Mumbai .

CHAPTER WISE RESEARCH PLAN

Chapter No.	Name of the chapter
1	Introduction
1.1	Objective of study
1.2	Scope of study
1.3	Research Problem
1.4	Hypothesis/ Assumptions
1.5	Research Methodology: Techniques and tools
1.6	Review of Literature
2	Conceptual theory of Entrepreneurship
3	Facts in present
4	Statistical data analysis
5	Testing of the hypothesis
6	Finding, Conclusion and Recommendation
7	Bibliography ,Appendix

PHASE OF RESEARCH STUDY

Sr. no.	schedule
1	Research Design
2	Review of Literature
3	Development of study
4	Designing of Questionnaire
5	Pilot survey
6	Scheduling of questionnaire
7	Development of Final survey
8	Data collection
9	Data analysis

10	Finalization of model
11	Report writing

CONCLUSION

This section focuses on recommendations to women entrepreneurs in navi mumbai as well as other developing countries on how their businesses performance can be improved successfully and economically in order to meet up with the environmental challenges within and outside their operating environment. Some of these recommendations and how it could be improved are directed to women entrepreneurs, the policy-makers and government as well as the financial institutions.

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ORGANIZED RETAILING IN INDIA- AN EMPIRICAL STUDY OF APPROPRIATE FORMATS AND EXPECTED TRENDS

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ABSTRACT

The retail sector and its environment have experienced radical changes in the last decade. Most of the challenges are due to changing demographics, social, politic, business climate, and changes in the retail sector including the addition of Wall Mart, Carrefour, K-Mart, etc. This paper examines the relative importance of the various products purchased at organized retail outlets and the choice of format, the consumer has when purchasing a product. The paper also discusses the expected development of organized retail in the future, focusing on aspects with potential effects on consumer purchasing behavior. Not all items are equally important for retail outlets and various products need specific retail formats.

Keywords: retailing, India, purchasing behavior, demographics, business climate

INTRODUCTION

It may be difficult to transplant a successful international format directly and expect a similar performance. Local conditions and insights into the local buying behavior have to shape the format choice. A considerable amount of experimentation is happening locally with regard to format. Players such as Subhiksha are providing convenience with discount on goods. International convenience formats typically charge a premium over the market prices. Similarly, ITC is experimenting with a model, which brings together a two-way flow of goods in the retail outlet - farmers sell their produce and purchase goods to fulfill their consumption needs. While the experience of these retailers as they scale up beyond their current geographies may provide new insights and lead to modification or fundamental re-engineering of their formats in the future, such experimentation and identification of an appropriate format for local conditions may differentiate winners from losers in the future Indian retail market.

The remainder of the paper is organized as follows: In the next section, we discuss the relevant literature. Next, we discuss the objectives and hypotheses of the research paper. The paper continues by discussion the data and methodology and results of the empirical analysis. The paper closes with some concluding comments

REVIEW OF LITERATURE

From a retail perspective, the flow of good and service relates to classical economics theory, which generally tries to find an equilibrium point between maximizing producer's profit and consumer's utilization. Some authors suggest a relationship between retail activities and society, such as Howard (1933), Nystrom (1948) and Severa (1943). In his writing, "The whole Truth in Retail Advertising", Howard (1933) explained how retail advertising activities affect society behavior. He argued that "manipulative advertising" can destroy social's society structure. Nystrom (1948) examines the minimum wage in retailing and Severa (1943) examined the US Retail Credit in Wartime. The discussion about retail and its effect on society in this era (1925-1945) speaks about retail planning after World War II, price policy strategies and fulfilling the needs of society after war.

Copeland (1942) in his commodity theory suggests the need to classify goods and services, based on consumer needs in order to make distribution easy. Zanna and Fazio (1982) and Ajzen (1989) point out that an evaluative dimension is a common feature of all definitions of attitude. Shim et al. (2001) indicates that an individual's positive or negative evaluation of relevant behavior, is characterized by the person's beliefs regarding the perceived outcomes of performing the behavior. From this perspective, knowledge of consumers' attitudes can help explain the reasons behind their favorable and unfavorable evaluations of an object or a behavior. For example it can explain why consumers do or do not buy products of a particular brand name or shop at certain type of store.

In a discussion of the most appropriate formats for shopping for various products, Urbany, Dickson, and Kalapurakal(1996) and Ailawadi, Neslin, and Gedenk(2001) specifically developed a scale for measuring attitudes toward grocery shopping. Childers et. al. (2001) developed a scale to measure attitude towards shopping that utilizes a technological device. Donthu and Gilliland (1996); Donthu and Garcia (1999); Beatty and Ferrell (1998); Reynolds and Beatty (1999) and Ellis (1995) observed that shopping enjoyment actually pertains to the "affective" aspect of the shopping attitude which leads to know about the fit match about the types of product and the appropriate retail format .

Specialized retailers are developing rapidly in segments such as consumer durables and white goods, books, music, lifestyle goods, household furnishings, healthcare and beauty. In the late 80's there were approximately 300 different types of cars, 400 brands of beer, and 21000 products in the average super market in the United States (McKenna, 1988). Literature in marketing and related behavioral sciences suggests a breadth of consumer motives for shopping. Howard and Sheth (1969) have developed the idea that the utilitarian motive to obtain desired items motivates consumers.

In the present study, an attempt is made to highlight the most important products being sought at modern retail outlets and the appropriate formats for their sales. The study may prove useful for the organized retailer to understand the consumers' preferences for various products and the appropriate retail formats.

OBJECTIVES OF THE STUDY AND HYPOTHESIS

This study has three objectives: to identify the relative importance of the various consumer products that consumers purchase at organized retail outlets; To know the appropriate retail formats for each of the selected items and to have an insight about the future trends of retail in India.

The following hypotheses are proposed:

Hypothesis

1. All the items purchased at organized retail outlets are equally important.
2. All types of retail formats are equally appropriate for all items sold at organized retail outlets.
3. Organized retail has great potential in India.

METHODOLOGY

The scope of this study is confined to the organized retail sector. The respondents belong to the National Capital Region (NCR) Delhi. The study examines primary as well as secondary data. The researchers collected data by using a convenience-sampling method. The researchers personally contacted three hundred sixty five consumers out of which only two hundred and thirty provided appropriate responses. These shoppers were inside either the mall or walk in customers. The researchers conducted the survey in the two months of August and September 2008. A five point Likert scale was used in the questionnaire. The data is analyzed using factor analysis and ANOVA. SPSS 11.5 version software is used.

RESULTS

In order to identify the relative importance of the various products important, the researchers have consulted various earlier studies. The India Retail Report 2007 suggests 13 items are important for sales through organized retail outlets. For the present study these 13 items were examined. The responses obtained were analyzed using factor analysis. The results were subjected to Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity tests. Bartlett's test of Sphericity rejects the null hypothesis. The approximate chi-square value in this case is 545.056 with 78 degrees of freedom, which is significant at the 0.00 level. The value of the KMO statistics (0.533) is also large (>0.5). Hence, all products are not equally important for organized retail outlets.

From table 1, it is evident that the first five variables represent 61.183 % of variance. Therefore, only these five factors with the variance greater than one were retained. The other factors are not included in the model. Thus, we extract only five factors from the thirteen initially selected variables. The results are depicted in Table 2 below.

Table-1: Total Variance Explained

Component		Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance		Total	% of Variance	Cumulative %
	Total	Cumulative %				
1	2.379	18.303	18.303	2.379	18.303	18.303
2	1.825	14.041	32.344	1.825	14.041	32.344
3	1.464	11.260	43.603	1.464	11.260	43.603
4	1.186	9.120	52.723	1.186	9.120	52.723
5	1.100	8.459	61.183	1.100	8.459	61.183
6	.995	7.655	68.838			
7	.924	7.107	75.945			
8	.735	5.651	81.595			

9	.655	5.041	86.636			
10	.604	4.650	91.285			
11	.536	4.121	95.406			
12	.423	3.252	98.658			
13	.174	1.342	100.000			

This table shows the amount of total variance explained by each of thirteen products.

Table-2: Rotated Component Matrix

			Component				
Retail Segments			1	2	3	4	5
Food and grocery			-.025	-.756	.009	-.228	.041
Health& Beauty Care Services							
			.914	-.013	.009	.030	.151
Clothing, Apparels and accessories							
			.153	.780	-.003	-.160	.003
Books, Music and gifts			.444	.044	-.074	.007	.659
Furnishing and Home Furnishing							
			.329	.319	.457	.090	-.296
Jewellery			-.124	.190	-.018	.172	-.533
Footwares			.030	.276	.124	.706	-.072
Catering services							
			.841	.154	.083	-.098	.095
Entertainment			-.210	.443	.132	.230	.622
Watches			.143	-.034	-.452	.557	-.161
Pharmaceuticals			.202	-.129	.652	.117	.102
Consumer	Durables,	Home					
			.317	.219	-.183	-.547	-.114
appliances							
Mobile, accessories & Services			-.142	.067	.807	-.004	-.048

Table 2 shows the following 5 components: 1= Health & beauty care services and Catering Services. 2 =Clothing, and apparels & accessories; Food and grocery. 3 = Mobile accessories & services and Pharmaceuticals. 4= footware and watches. 5 = books, music gifts and entertainment

Relative Importance of Retail Segments

Table 3 depicts the various retail segments in their descending order of importance for purchase through organized retail. The order of importance for various items for organized retailing are food and grocery; Clothing, apparels and accessories; Catering services; Health and beauty care services; Pharmaceuticals, Watches; Mobile, accessories and services; Books, music and gifts; Foot wares and Entertainment.

Table-3: Relative Importance of Retail Segments

Retail Segments	N	Mean	Std. Deviation	Variance
Food and grocery	230	3.3522	1.15686	1.338
Clothing, Apparels and accessories	230	3.2478	1.08759	1.183
Catering services	230	3.1261	.96068	.923
Health& Beauty Care Services	230	3.0217	.93194	.869
Pharmaceuticals	230	2.8522	.94609	.895
Watches	230	2.7957	1.10851	1.229
Mobile, accessories & Services	230	2.7913	1.05727	1.118
Books, Music and gifts	230	2.6174	.89718	.805

Footwares	230	2.5739	1.22607	1.503
Entertainment	230	2.2391	1.21822	1.484

Format is suitable for the above-mentioned two services. For the remaining variables, the significance level is calculated is to be less than .05. Further, in order to identify the most appropriate retail format for the selected items, mean and standard deviation of the obtained data was calculated. On the basis of this data, the most appropriate retail formats are given below.

Food and grocery-Supermarket; Health and beauty care services-Supermarket; Clothing and Apparels'-Mall; Books; Music and Gifts-Convenience store and Mall; Catering services-Mall; Entertainment-Mall; Watches-Hypermarket; Pharmaceuticals-Hypermarket; Mobile, accessories & Services-Hypermarket; Foot wares-Departmental store.

Emerging Trends in Retailing

In order to identify the expected future trends, an analysis of various experts opinions were examined. It was generally agreed that revolutionary changes in the twenty-first century marketing will occur. "The age of diversity" characterizes the market place, in which consumers demand and get tremendous variety of products and services. Customers can provide large number of new ideas, which companies may not identify on their own. The retail market in India offers tremendous potential and the market is responding. The retail boom in India brings tremendous opportunities for foreign as well as domestic players.

It was observed that some of the experts had hesitantly opined that the position of the retail sector in India may be somewhat affected due to economic crisis in developed nations. However, some opined that the world, until recently, looked at India as the nation of the future, most significantly in the retail sector. With the changing face of retail, the Indian consumer has seen rapid transformation. Discussions also indicate that the global financial meltdown has started having its impact on the Indian economy. With the industrial production hitting a low of 1.3 percent, almost all sectors have now started severe cost cutting, including laying-off employees. Across all-sectors-manufacturing, retail, realty, IT and BPO, banking and financial services, the focus is now on trimming down employee strength. The region is no different, with the number of employees losing their jobs getting higher day-by-day.

Many respondents opined that in spite of all these difficulties the Indian retail sector remains one the most attractive emerging retail markets of the world. An 8-9 per cent GDP growth rate, a booming consumer market led by a 300 million strong English speaking middle-class, an immense untapped economic potential are just some of the reasons that the Indian shopper is very much sought after.

CONCLUSIONS

In India, a consuming class is emerging as a result of increasing income levels and dual career families with high disposable incomes. With retailers eyeing their presence in the market, it is important to identify the target shoppers as well as the prime factors of enjoyment in shopping. The results reveal that a majority of the consumers are pro shoppers, feeling enjoyment while shopping. Their key interests include getting product ideas or meeting friends. They also view shopping as a means of diversion to alleviate depression or break the monotony of daily routine. In addition to this, they also go shopping to have fun or just browse through the outlets.

There are revolutionary changes in the marketing in the twenty-first century. "The age of diversity" characterizes today's market place in which consumers demand, and receive, tremendous varieties of products and services. Understanding customers' perceptions, attitudes, desires, aspirations and expectations has become very important for marketers. Customers can provide large numbers of new ideas, which companies may not identify on their own. The retail markets in India offer tremendous potential and is growing fast. The retail boom in India brings tremendous opportunities for foreign as well as domestic players. The recent global financial meltdown is not expected to have a severe effect on the

Indian economy in general or on the retail sector. India has good fiscal as well as revenue policies and a well-developed banking system and network. We expect that India experience some heat but it will not melt down.

The limitation of this study is its scope, as the study is confined to the Indian retail sector. As such, the findings may not be applicable in the other countries. Future changes in economic conditions could again change the playing field.

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CRITICAL STUDY OF BSE AFTER LPG MODEL

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ABSTRACT

Stock market show health of our economy After LPG model many positive and negative factors have seen in these market. This market reflects future of our economy. After LPG model government introduced SEBI to put control over stock market. When investment rate will come down then market also come down. After LPG model Indian industry face the problem of finance. The financial needs is fulfilling by share market. But due to risk in share market and less transparency about business organisation only half percent of population keeping trust on share market apart from that terrorist attack and government decision related our economy also affecting on stock market.

Keywords: - LPG model, Indian industry & Government Decision.

INTRODUCTION

Stock market is that market which provides capital to our business organisation. Every business requires finance to grow and expand business activities through stock market. Business organisation needs finance & that need will be fulfilled by stock exchanges. BSE & NSE are main stock exchanges which trading shares and help to meet financial need of business. After LPG model competition has increased rapidly in our economy. Many foreign companies are competing with domestic companies due to LPG model. To face competition effectively stock market is sources to provide money to business organisation. To sell securities in stock exchanges, business should be registered with stock exchanges. Before going with registration with stock exchanges, business should be registered in SEBI. After approval of SEBI, then only business can registered in stock exchanges. BSE & NSE are main stock exchanges where all types of stock can buy and sell. Many investors take helps brokers for investments purpose and for trading purpose.

RESEARCH DESIGNS

The research design is a outline of research. In this research primary and secondary data is used to find out correct information. For getting right information researcher use questionnaire, various books and internet sources are used for research purpose. For primary data researcher has used group discussion and observation method.

LIMITATION OF THE STUDY

Mumbai is the city where large population is living but all are not stock investors. Because of time limit and word limit in this paper, few samples are selected on the availability people. To start study limited questions have asked in research paper.

RESPONDENTS

30 respondents have taken to analysis situation of BSE and collected data.

TYPE OF RESEARCH

Descriptive research

HYPOTHESIS

Ho- after LPG Investors faces risks.

H1- after LPG BSE has seen more changes.

OBJECTIVES OF STUDY

- 1) To examine changes of BSE after LPG model.
- 2) To help investors to analyse risk.

LITERATURE REVIEW

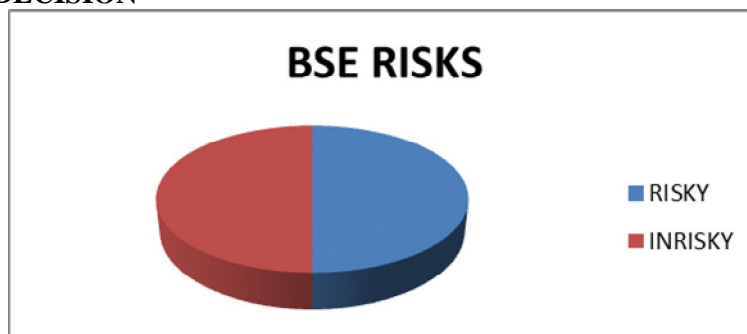
Sameer Yadav (2017) stated in his paper that stock market is most versatile sectors. He stated higher volatility creates more risk. It pools number of investors in one bucket.

S. Burau, Raghunathan & J. Verma (1994) presented review on Indian capital market and states characteristic of capital market. It is changed due to changes in economy and states about functioning of SEBI which has been successful in improving the functioning of stock market.

CRITICAL EVOLUTION AFTER LPG MODEL

LPG model brings new changes in our Indian economy. It has given new shape to our Indian industry and market. After LPG model our Indian Industrial activities expanded rapidly. The role of government sector minimises and Indian industry got freedom for business. LPG model also affecting on our stock market. After LPG model Indian stock market is strongly fighting with foreign economy. Now stock market is playing very challenging role for investors after implementation of LPG model. Stock index show our economic growth. When our stock market will go up, it shows good growth of our economy. But when our stock market coming down, it show negative impact of economy. Due to LPG model our domestic industry is competing with foreign firm but due to lack of capital and technology our domestic firm & Shareholders face the problem of risk in share market. Even after LPG model we invited many foreign firms in our country that's why we face the problems of terrorist attack, bomb blast, and unsafe climate for investors and business organisation. Due to unsafe climate in our economy, many foreign firms will not run their business & will not invest their money in our country. All these factors heavily affect on own growth of economy. Our Indian Government spending 50% money on our safely and security of nation in spite of that we are not safe in Indian Economy. If we will not remain safe then our business will collapse and we face continue problem of poverty and unemployment. It our government will spend more money on security of nation then we get less money for economic development. After the attack of Pulwama, many foreign firms face the problem unsafe climate and this people will not invest their money in stock market. Our financial industry also facing problems on financial crisis. After our independence of our country, our industry is glowing and diversifying slowly & Slowly.LPG process bring more change in Indian Capital Market and encourage entrepreneurship, mobilisation of resources, allocation of resources for economic Growth. After LPG model many financial reform has occurred in Indian economy along with scams in securities market. Stock market is subject of risk and uncertain profit. Many government decisions will effect on stock market. Demonetisation or cancellation of currency also affected on stock market negatively. Sensex also come down due to demonetisation. Demonetisation cancel old currency and this reduce the purchasing power of people. During demonetisation two thousand new notes were introduced but people don't have change and bank also had less capacity to pay. So all these factors creates problem for buyers and sellers and it ultimately affecting on our share market.

BSE INVESTMENT DECISION



According to report mostly people have 50% trusts on stock market. 50% people are saying about unsafe climate of stock market. Here people are confused about investment and 50% about risk and safe environment. There are still lack of knowledge and confusion about investment and people try to avoid risk.

FINDING

After LPG model on Indian industry is expanding but along with new challenges. Many problems we are facing now because of structural changes. Some people take risk and some try to avoid risk in security market. Therefore proportion of investment in security market is not more as compare to other countries. Due to these factors our Indian industry is not getting sufficient money from investor for business purpose.

CONCLUSION

From the above study researcher find out there is more risk in securities market. After scams in security market, SEBI was established but SEBI Can't gives the guarantee of company. Investors take precautions while investing money. Because of lack of knowledge, few investors are investing less money share market and give more preference of investment to other area. Even educated investors are not keeping trust on shares market. SEBI has made rules and regulations to stop scams and control stock market but the due to risk factors investors investing less amount in stock market.

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THE ROLE OF BIG DATA IN BUSINESS**Sudharshan Shetty and Abhishek Sanil**Student, Shri Ram College of Commerce, Science & Arts, Mumbai

ABSTRACT

Information systems coupled with internet, cloud computing, mobile devices and Internet of Things have led to massive volumes of data, commonly referred as big data. It includes mix of structured, semi-structured and unstructured real-time data, constituting of data warehouse, OLAP, ETL and information. Business firms and academicians have designed unique ways of tapping value from big data. There is a great scope of using large datasets as an additional input for making decisions. The aim of the paper is to explore the role of big data in these areas for making better decisions. Here we explore how big data can be used to make smart and real-time decisions for improving business results. The paper undergoes literature review and secondary data to provide a conceptual overview of potential opportunities of big data in Business. The paper discusses the concept of big data, its role in Business and also the competitive advantage of big data for different firms. The paper also discusses a framework for managing data in Business. The topic must be addressed for taking better decisions for firms which will contribute to high quality knowledge.

Keywords: big data, big data analytics, social media analytics, marketing analytics.

INTRODUCTION

Information systems have evolved over the years from being transactions recording system to supporting business decisions at different levels. Traditional information systems depended primarily on internal data sources such as enterprise resource planning systems (ERPs) for making business decisions. These datasets were structured and used relational database management system (RDBMS). These were used for supporting internal business decisions such as inventory management, pricing decisions, finding out most valuable customers, identifying loss making products etc. Besides, data warehouse was built using this data for analysis and mining purpose. These data sources were integrated with data from business partners such as suppliers and customers using enterprise application integration (EAI) platforms. EAI enabled seamless integration of information systems between business partners. It enhanced speed of business to business transactions (B2B), communication and reduced cost of inter-company transactions.

The revolution of big data is more powerful than the analytics which were used in the past. Using big data helps managers to make better decisions on the basis of evidences rather than intuition. Businesses are collecting more data than required for any use (McAfee et al., 2012); big data helps in making better predictions and smarter decisions. Leaders across industries use big data for better managerial practices. There are several researches conducted in individual areas such as transactional data, social media data, supply chain big data etc. However, there is lack of holistic review of understanding potential of big data for decision makers. Driven by this need we explore the role of variety of big data in various decision-making scenarios. This paper acts as a bridge this gap by achieving the following objectives:

- a) To explore the existing literature on the fundamental concepts of big data and its role in Business
- b) To explore role of big data in making strategic, tactical and operational decisions.

WHAT IS BIG DATA?

Big data has been defined in several ways by several authors. Boyd and Crawford (2012) have defined big data as cultural, technological and scholarly phenomenon while Fan et al. (2014) have defined big data as the ocean of information. According to Kitchin (2014), big data is defined as huge volume of structured and unstructured data. Waller & Fawcett (2013) define big data as datasets that are too large for traditional data processing systems and therefore require new technologies to process them. Dubey et al. (2015) describe it as the traditional enterprise machine generated data and social data. Big data is a term that describes the large volume of data – both structured and unstructured – that inundates a business on a day-to-day basis. But it's not the amount of data that's important. It is what organizations do with the data that matters. Big data can be analyzed for insights that lead to better decisions and strategic business moves.

FIVE VS. OF BIG DATA

While the term “big data” is relatively new, the act of gathering and storing large amounts of information for eventual analysis is ages old. The concept gained momentum in the early 2000s when industry analyst Doug

Laney articulated the now-mainstream definition of big data as the three Vs – Volume, Velocity and Variety. With further refinement, big data is now characterized with five V's as summarized in Table 1 below.

Table-1: Five V's of big data

Characteristics	Description
Volume	Large amount of Data in terabytes or petabytes has been doubling every forty months (Davenport, 2014)
Velocity	Rate of Data accumulation is increasing in every business or organization
Variety	There are multitude of Data Sources like enterprise systems, socialmedia, text, video, audio, email, RFID, web applications and other digitaldevices.
Veracity	Quality of Data is very essential for the accuracy of decision.
Value	Economic & Social Outcomes can be improved by obtaining value from the heterogeneous data.

Reputed data analytics firm SAS considers two additional dimensions such as Variability and Complexity when it comes to big data.

CLASSIFICATION OF ANALYTICS

In general analytics can be classified into 3 categories based on the purpose of use – descriptive, predictive and prescriptive. Descriptive analytics explains a phenomenon from past data through reports, dashboards, which helps in understanding what has happened. Predictive analytics helps us to understand what can happen.

A. Audio and Video Analytics

Audio analytics takes seconds to process audio through technology mainly for safety purpose in any organization and can track a wide range of sound in the environment. Video analytics is used to process and analyze videos from variety of fields and industries. This helps in extracting events helpful for taking operational decisions.

B. Web Analytics

Online retailer Amazon uses data mining techniques to mine the big data such as click streams, web searches, order history, online etc. to derive intelligence. This intelligence is used to make decisions about product promotions and it is working successfully for companies such as Amazon. A correlation is derived between previous purchase history and potential new purchase based on similar purchases in the past. This correlation is used to identify potential customers and promote different products to these customers using digital media such as emails, Facebook or by flashing messages on Amazon.com.

C. Network Analytics

Network analytics provides information about devices which are connected to network and how they are interacting with each other. This information helps in designing network policies, to make actionable decisions that help in improving business performance and reducing costs.

D. Text Analytics

Document representation, enterprise search system, search engines, user models, relevance of feedback, query processing', billions of searches of customer for a particular product on google, searches on Amazon's website provide indicator of intention to purchase the product by customer. Amazon, Jet Airways many other ecommerce firms use this feature to recommend products or flights when next time customer will be browsing their website, thereby improving the probability of customer purchase decision.

ROLE OF BIG DATA IN BUSINESS

In the current era, business executives are challenged with high expectations from customers, high competition, rising costs of labor and materials and shorter product lifecycles. Globalization is blurring the boundaries among nations. Location and distance from the market are no longer barriers to access the markets. In such a volatile environment, firms need to continuously scan for risks and opportunities and make business decisions quickly based on available data. In this section, we discuss the role of traditional "small data" as well as "big data" for making business decisions.

a. Traditional decision support systems

Traditional decision support systems supported internal business decisions based on data generated by transactions processing systems such as ERPs

Table 2 Role of big data in making decisions

Big data source	Big data driven Insights	Actionable Decisions	Reference
Google search for a product or brand	<ul style="list-style-type: none"> Customer intention to buy a particular product Identify customer preference for a particular brand 	Predicting demand for product	
Google search by specific key words	What particular information citizens are looking for or concerned about	Predict spread of flu by geography by regions	Mayer-Schönberger & Cukier, 2013
Amazon search	Customer intention to buy a particular product	Reminder to customer next time she/he visits the site leading to chances of sale	Amazon.com website
Amazon Purchase history	Using association rules mined from billions of records, identify which different products are bought by customers	Product recommendation (customer who bought this also bought)	Amazon.com website
Walmart POS data	<ul style="list-style-type: none"> Using association rules mined from billions of records, identify which products customers buy together (market basket analysis) Facing disaster such as hurricanes people buy some unusual things like pop-tarts etc. in addition to usual water, batteries, shovel etc. 	<ul style="list-style-type: none"> Store layouts redesign to place such products together Inventory planning based on buying patterns prior to disasters such as hurricanes 	<ul style="list-style-type: none"> Waller & Fawcett, 2013 Dyché, 2014
Competitive intelligence from social media	Comparative analysis between competing products	Plan product strategy	Vries et al., 2016
Data from telematics sensors used by UPS vehicles	Information about speed, routes, direction, braking, drive train performance	Redesign Routes leading to saving of millions of gallons of fuel	Davenport & Dyché, 2013
Call center logs, online usage of accounts	Create complete profile for customer journey	Design future strategies for improved customer service	Davenport & Dyché, 2013

b. Benefits of Using Big Data in Business

In the last few years, with advent of big data, the information requirements of executives have changed. In addition to traditional datasets described above, there are large datasets coming from variety of sources in structured, semi-structured or unstructured forms. There are several ways in which firms can tap value from these datasets to make strategic, tactical and operational decisions.

A. Understanding Customer Journeys

Leading banks such as Wells Fargo, Bank of America and Discover get to understand their customer relationship using big data gathered through variety of sources as described in Figure 1 below. They create complete profile of customer journey's using mix of structured, semi-structured and unstructured data originating from call center logs, website clicks, transaction records, ATM transactions, clickstreams etc. This profile helps them to understand reasons for customer attrition, correlating journeys with customer opportunities and problems (Davenport & Dyché, 2013).

Figure-1: Customer journey

**B. Competitive Intelligence**

There are several studies conducted to understand consumer sentiments, attitudes and opinions using social networking sites (SNSs). In addition to consumer sentiment about their own products, business executives need to know what customers think about competitor's products. This intelligence will help to plan innovations in future products or design a strategy to market the products. Mining of a social media data can obtain comparative analysis of consumer opinions and sales performance of a business and its competitors.

C. Cost and Time Reduction

There are numerous opportunities of cost and time reduction using big data. Big data technologies such as Hadoop clusters are emerging as significantly low-cost option compared to traditional databases. It can play a role in real time decisions regarding promoting offers and services to customers based on their current locations. UPS saves millions of dollars in fuel by collecting, analyzing data from telematics sensors installed on its 46,000 vehicles and redesigning its vehicle routes using this large dataset (Davenport & Dyce, 2013).

D. Optimization and Simulations of Supply Chains

Supply chains are getting increasingly complex with multitude of suppliers and business partners. Over last two decades, members of supply chain have implemented enterprise systems which record every transaction. With advancement of EAI information sharing happens between business partners such as suppliers and customers. For efficient movement of goods across supply chains, technology plays an important role. Scanning devices such as sensors and RFID, location tracking devices like GPS, video recordings etc. – all these churn large volumes of data with inventory movement. Supply chain analytics enhances capability of decision makers by getting an integrated view of the data within supply chain.

E. Predicting Future Outcomes

There are several opportunities of using datasets for predicting future outcomes. Analytics frameworks can be developed to analyze different datasets and make predictions as listed below-

- a) Based on historical transactional data, using forecasting models such as regression predict future sales for the product or services for a firm.
- b) Based on correlations found in historical purchases, identify products purchased together by customers. Referring to these correlations and purchase history of a customer, predict which products a customer is most likely to buy and make online recommendations.

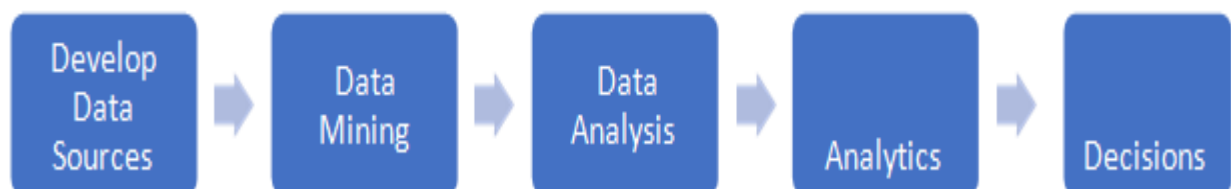


Figure-2: Conceptual framework on big data and Business

F. Real-time Business

Several visionary companies have developed real-time decision-making capabilities using supply and demand side information. Using analytics, they have online real-time decision-making capabilities that cannot be matched by traditional business models. Transport service providers such as Uber uses big data for real time routing of cars to minimize pick up times and optimize customer experience of a ride (Woo die, 2015). Ola and Uber provide real-time information to both customer and cab driver on Google map.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

We have come a long way since information revolution has changed the way business firms work. Big data is helping firms to get competitive advantage using different analytics techniques. These techniques help us to get insights, patterns, correlations and associations which could not be understood through traditional small data. These support decisions making process for business executives with the help of social media data, competitive intelligence, cost and time reduction strategies, supply chain analytics, web analytics etc.

With continued digitization of every aspect of society as well as business, pace of generation of high speed high volume data is going to continue. This provides a sound opportunity to exploit the field of analytics for decision making in different business domains.

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THE FUTURE OF CELLULAR AGRICULTURE IN INDIA

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“How Can I Force Anyone Not To Slaughter Cows Unless He Is Himself So Disposed?”- Mahatma Gandhi

ABSTRACT

The rising population of our country not only exerts a pressure on the available resources but also provides a challenge for food security especially amongst the vulnerable sections of the society. Thus, the increasing demand for protein in a sustainable way has paved the way for cellular agriculture. It is being estimated that in the near future there won't be enough plants and animals due to tremendous growth in population, in that scenario the cultured meat will be proved as a boon for meat lovers, who don't want the animals to be killed for food.

There will be a paradigm shift in the production and consumption pattern of meat, as threatening impact of biodegradable waste generation from dead animals, offal disposal, horrifying screams, butchers mafia, etc can be eliminated. This research paper thus focuses on the future of cellular agriculture in India, its adoption and promotion, challenges, procedures and safety concerns associated with the synthetic meat.

Keywords: cultured, offal, butchers, vulnerable, cellular, synthetic

INTRODUCTION

As the demand for meat is quite higher than the supply, and to solve this problem and save animals, the idea of cultured meat was introduced. Cultured meat is also known as ‘synthetic meat’, ‘lab-grown meat’, or ‘clean meat’, that is produced in a bio-factory setting without animals slaughtering and is free from all diseases, risks, antibiotics, and pesticides. It is a type of meat which is grown in the lab by using animal cells, outside its body in a petri dish.

The concept of cellular agriculture in cultured meat was popularized by Jason Matheny in the early 2000s and launched ‘New Harvest’ - world's first non-profit organization in a bid to support artificial meat research.

Later, in 2013, the first lab-grown burger patty was introduced by Mark Post, Professor, Maastricht University.

FAO estimates provide that there will be an aggressive demand for meat around 76 percent by 2050. Almost, 76 per cent more animals will require 76 per cent of more space, water, grain, etc, and this would result in dredging of an already overfished ocean water.

OBJECTIVES OF THE STUDY

- To find out the procedure involved in making cultured meat
- To verify whether the lab grown meat is safe for consumption
- To identify the future prospects of cellular agriculture in India

THE PROCEDURE INVOLVED IN MAKING CULTURED MEAT

The extraction of fast-growing cells from an animal is the first step in the creation of cultured meat.

The source of myoblast cell is biopsy of an animal's muscle cells, which creates discomfort amongst animals on a miniscule level. Nowadays, myoblast cells are preferable over stem cells as they have already been developed into muscle cells.

The next step is more complex as research is still undergoing into this segment. Here, the origin cells are grown in a bioreactor, which then supplies them with the nourishment and conditions they need to multiply and grow into a muscle.

The scaffold-based-technique principle is a trending method today extensively used. In this method, the proliferation of suitable muscle cells on a scaffold in the presence of a muscle food is carried out. The periodical movement of scaffold is done, in order to mimic the movement of real animals. In the last stage, the fully grown muscle is harvested from the scaffold and then the muscle is minced.

IS THE SYNTHETIC MEAT SAFE FOR HUMAN CONSUMPTION?

This is a debatable question and will always be surrounded by ethical concerns and acceptances, especially in a country like ours, where conventional eating habits are of prime importance.

Scientists claim that lab-grown meat should even be safer than conventional animal meat as there will be no chances of bacterial contamination. There is high possibility that the regular animal meat might get infected with E. coli from ground beef, Bovine Spongiform Encephalitis from beef cattle, Trichinosis from pork, Salmonella from poultry, Scrapie from lamb and mutton, etc.

If such meat gets consumed, then the consumer would get contracted with various diseases, for example - Creutzfeldt-Jakob disease. Such risks are not associated with the synthetic meat.

As live animals are subject to infections, sickness and diseases, they are given medicines for their treatment. Such medicines involve chemicals and thus their meat. The consumption of the tranquilized, pesticided and antibiotic contained meat, will lead to bioaccumulation in humans and other secondary and tertiary living creatures that will adversely hamper the food chain and food web by creating ecological imbalances. Thus, Cellular agriculture will provide clean meat, free from such ailments in a sustainable manner, which is not only fit for human consumption but will also help to protect the ecology and biodiversity.

The only thing we need for conserving cultured meat is preservative that is still at a stagnant stage, but surely aid in protecting the meat from fungus and yeasts.

From above we can say that, the benefits and prospects of cultured meat are infinite as compared to the regular conventional meat, but still more research needs to be undertaken in this arena.

THE FUTURE PROSPECTS OF CELLULAR AGRICULTURE IN INDIA

- For gaining momentum in cellular agriculture field, the Maharashtra Government has come up with a plan to establish a centre that will be set up by the Institute of Chemical Technology (ICT), Mumbai, for promoting cell-based meat research & production in its first phase.
- The second phase is a Greenfield project which is expected to come up on 203 acres of land owned by ICT in Jalna by 2021.
- Researches to be carried out at the lab — 1) Open access research to be utilized by the entire sector and 2) Contract research opportunities with entrepreneurs
- The meat industry in our country is valued at an estimated cost of Rs 20,000 crore and will benefit around 9.7 billion people globally in 2050.
- The Maharashtra Government and the Indian arm of Washington-based NGO Good Food Institute (GFI) signed a MoU to set up a 'centre for excellence in cellular agriculture' to promote cell-based meat research and production.
- The network of scientists in such centre will provide expertise skill and knowledge about the production and consumption of synthetic meat.
- Animal welfare organization, Humane Society International India and the Centre for Cellular and Molecular Biology in Hyderabad are also partners of GFI. The 'clean meat' may hit the Indian supermarket shelves by 2025, offering consumers a choice to relish meat without actually butchering the animal.

CHALLENGES

- Although the number of animals affected would be greatly reduced, lab-grown meat would still require the use of animals.
- Manufacturing the same texture and taste like conventional meat can be a challenge as science has not totally advanced in this field.
- Finding the correct cells that multiply and are flexible are a tough nut cracking task.
- Another limiting factor could be the creation of appropriate bioreactors, which mimic the animal's correct temperature.
- Regulations and legislations associated with cultured meat is still in question.
- Acceptance of cultured meat as a regular food in a nutrition- from- conventional- food- sensitive country like ours could lead an obstacle in the adoption and promotion of the new generation food.

CONCLUSION

From the study, we can say that the concept of cultured meat is still in an infancy stage in our country. However, there is an immense opportunity and prospects in this sector as demand for the safe meat is on rise. In

the near future, the graph of meat consumption pattern in India will show an increasing trend due to the population escalation.

The potential centre opened up by our Government, will concoct and revolutionize the Indian businesses by providing an opportunity to create suitable products by using advancement in research. The clean meat will safeguard our country's competitiveness in the global food market if all the ethical concerns are taken into consideration, thus making ourselves industry leader in the Indo-Pacific region. Moreover, consumer interest is of high momentousness, it will come down to their acceptance and within reach if appropriate policies will be implemented in this regard. In order to make it a success, we need to have an open source research that will make the availability of science to every researcher. Hence, looking into the injections of cellular agriculture, it will be not wrong to say that the cultured meat is one of the key solutions to the global hunger, as there is no hindrance on the quantity of meat to be produced.

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MIOT (MEDICAL INTERNET OF THINGS): HOW IT IS REVOLUTIONIZING HEALTHCARE WITH ITS POTENTIAL AND SHORTCOMINGS**Sandeep Vishwakarma**

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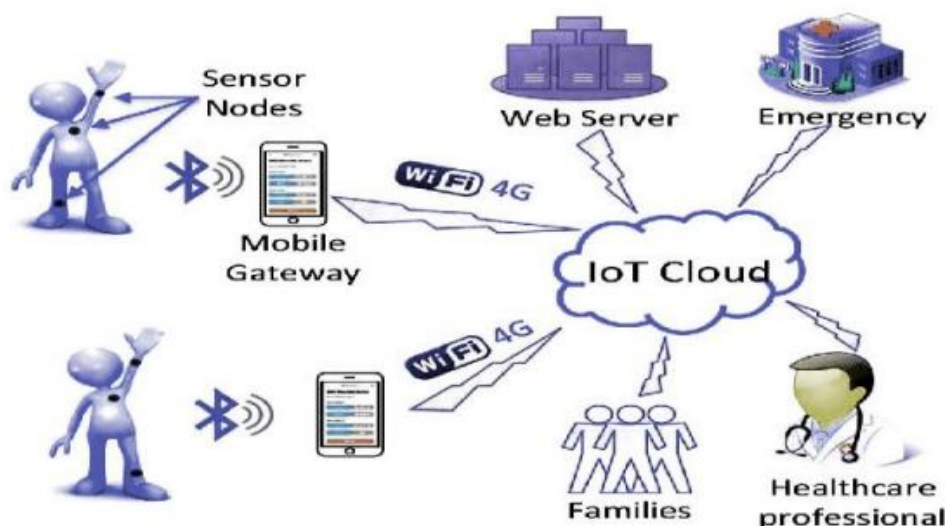
ABSTRACT

The IoMT is an amalgamation of medical devices and applications that can connect to health care information technology systems using networking technologies. It can reduce unnecessary hospital visits and the burden on health care systems by connecting patients to their physicians and allowing the transfer of medical data over a secure network. According to Frost & Sullivan analysis, the global IoMT market was worth \$22.5 billion in 2016; it is expected to reach \$72.02 billion by 2021, at a compound annual growth rate of 26.2%.

The IoMT market consists of smart devices, such as wearables and medical/vital monitors, strictly for health care use on the body, in the home, or in community, clinic or hospital settings; and associated real-time location, telehealth and other services.

Objective: The main objective of this paper is to acquaint the readers in lucid language of what MIoT actually is, how it can change the future of healthcare. Like everything else, MIOT too has a flipside which also discussed in this paper.

Keywords: Medical Internet of Things, Healthcare, Technology

**INTRODUCTION**

The healthcare industry is in a state of great despair. Healthcare services are costlier than ever, global population is aging and the number of chronic diseases are on a rise. What we are approaching is a world where basic healthcare would become out of reach to most people, a large section of society would go unproductive owing to old age and people would be more prone to chronic disease.

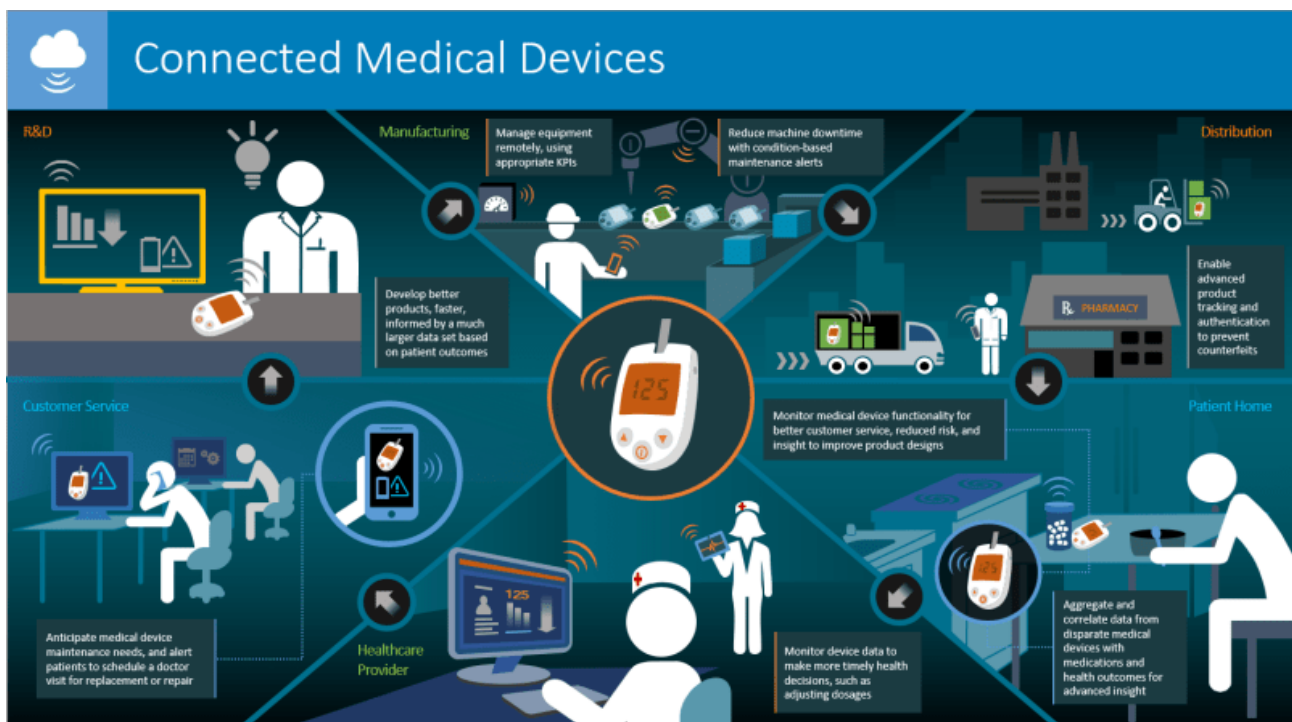
While technology can't stop the population from ageing or eradicate chronic diseases at once, it can at least make healthcare easier on a pocket and in term of accessibility. Medical diagnostic consumes a large part of hospital bills. Technology can move the routines of medical checks from a hospital (hospital-centric) to the patient's home (home-centric). The right diagnosis will also lessen the need of hospitalization.

A new paradigm, known as the Internet of Things (IoT), has an extensive applicability in numerous areas, including healthcare. The full application of this paradigm in healthcare area is a mutual hope because it allows medical centers to function more competently and patients to obtain better treatment. With the use of this technology-based healthcare method, there are unparalleled benefits which could improve the quality and efficiency of treatments and accordingly improve the health of the patients.

While IoT-based medical technology applications are still in a nascent stage, recent research in sensor, networks, cloud, mobility, and the big data domain is witnessing significant activity towards developing maximum IP coverage by companies.

Although the development of telemetric devices was first commenced in 1970 with a patent filed by both Warner-Lambert and Pacemakers Diagnostics clinic of America to disclose the telemetry, actual patent filing activities grew robustly after 1989, with the integration of biosensors into existing systems in order to capture dynamic physiological data and transmit it through wireless networks. The Internet-based medical device and remote healthcare assistance segments first flourished in the US due to the country's major market share in conventional medical devices. Remote location-enabled technologies were rapidly adapted in the market due to their widespread clinical acceptance and healthcare policies. Due to this, major corporations opted to protect their inventions in North America, followed by Europe.

Philips, GE Healthcare, and Medtronic are the leading players in IoMT technology. Philips primarily offers cardiac monitoring, remote patient communication devices, and sensor-related products, whereas GE and Medtronic focus on cloud-based technologies in existing monitoring devices, implants, and cardiac pacemakers. Siemens and IBM, two other players in the value chain, extend solutions in upper layers, which enable data analytics and cloud-based services to biometric data obtained from physical devices and sensors.



EXCITING APPLICATIONS OF IOT IN HEALTHCARE

The rise of IoT is exciting for everybody due to its different scope of use in various sectors. In Healthcare it has several applications. IoT in healthcare helps in:

- Reducing emergency room wait time
- Tracking patients, staff, and inventory
- Enhancing drug management
- Ensuring availability of critical hardware

IoT has also introduced several wearables & devices which has made lives of patients comfortable. These devices are as follows.

1. Hearables

Hearables are new-age hearing aids which have completely transformed the way people who suffered hearing loss interact with the world. Nowadays, hearables are compatible with Bluetooth which syncs your smartphone with it.

It allows you to filter, equalize and add layered features to real-world sounds. Doppler Labs is the most suitable example of it.

2. Ingestible sensors

Ingestible sensors are genuinely a modern-science marvel. These are pill-sized sensors which monitor the medication in our body and warns us if it detects any irregularities in our bodies.

These sensors can be a boon for a diabetic patient as it would help in curbing symptoms and provide with an early warning for diseases. Proteus Digital Health is one such example.

3. Moodables

Moodables are mood enhancing devices which help in improving our mood throughout the day. It may sound like science fiction, but it's not far from reality.

Thync and Halo Neurosciences are already working on it and has made tremendous progress. Moodables are head-mounted wearables that send low-intensity current to the brain which elevates our mood.

4. Computer vision technology

Computer vision technology along with AI has given rise to drone technology which aims to mimic visual perception and hence decision making based on it.

Drones like Skydio use computer vision technology to detect obstacles and to navigate around them. This technology can also be used for visually impaired people to navigate efficiently.

5. Healthcare charting

IoT devices such as Audemix reduce much manual work which a doctor has to do during patient charting. It is powered by voice commands and captures the patient's data. It makes the patient's data readily accessible for review. It saves around doctors' work by 15 hours per week.

6. Cancer treatment

In June 2018, data was presented at the ASCO Annual Meeting from a randomized clinical trial of 357 patients receiving treatment for head and neck cancer. The trial used a Bluetooth-enabled weight scale and blood pressure cuff, together with a symptom-tracking app, to send updates to patients' physicians on symptoms and responses to treatment every weekday.

The patients who used this smart monitoring system, known as CYCORE, experienced less severe symptoms related to both the cancer and its treatment when compared to a control group of patients who carried on with regular weekly physician visits (with no additional monitoring). The study demonstrates the potential benefits of smart technology when it comes to improving patient contact with physicians, and monitoring of patients' conditions, in a way that causes minimal interference with their daily lives.

7. Smart continuous glucose monitoring (CGM) and insulin pens

Diabetes has proven to be a fertile ground for the development of smart devices, as a condition that affects roughly one in ten adults, and one that requires continual monitoring and administration of treatment.

A Continuous Glucose Monitor (CGM) is a device that helps diabetics to continuously monitor their blood glucose levels for several days at a time, by taking readings at regular intervals. The first CGM system was approved by the US Food and Drug Administration (FDA) in 1999, and in recent years, a number of smart CGMs have hit the market.

Smart CGMs like Eversense and Freestyle Libre send data on blood glucose levels to an app on iPhone, Android or Apple Watch, allowing the wearer to easily check their information and detect trends. The FreeStyle LibreLink app also allows for remote monitoring by caregivers, which could include the parents of diabetic children or the relatives of elderly patients.

Another smart device currently improving the lives of diabetes patients is the smart insulin pen. Smart insulin pens – or pen caps – like Gocap, InPen and Esysta have the ability to automatically record the time, amount and type of insulin injected in a dose, and recommend the correct type of insulin injection at the right time. The devices interact with a smartphone app that can store long-term data, help diabetes patients calculate their insulin dose, and even (in the case of the Gocap) allow patients to record their meals and blood sugar levels, to see how their food and insulin intake are affecting their blood sugar.

8. Closed-loop (automated) insulin delivery

One of the most fascinating areas in IoT medicine is the open-source initiative OpenAPS, which stands for Open Artificial Pancreas System. OpenAPS is a type of closed-loop insulin delivery system, which differs from a CGM in that as well as gauging the amount of glucose in a patient's bloodstream, it also delivers insulin – thus "closing the loop".

OpenAPS was started in 2015 by Dana Lewis and her husband Scott Leibrand, who hacked Dana's CGM and her insulin pump in order to automate the delivery of insulin into her system. Using the data feed from the CGM

and a Raspberry Pi computer, their own software completes the loop and continuously alters the amount of insulin Dana's pump delivers.

Automating insulin delivery offers a number of benefits that can change the lives of diabetics. By monitoring an individual's blood glucose levels and automatically adjusting the amount of insulin delivered into their system, the APS helps to keep blood glucose within a safe range, preventing extreme highs and lows (otherwise known as hyperglycemia – excessively high glucose – and hypoglycemia – excessively low glucose).

The automatic delivery of insulin also allows diabetics to sleep through the night without the danger of their blood sugar dropping (also known as night-time hypoglycemia).

Although OpenAPS is not an “out of the box” solution and requires people to be willing to build their own system, it is attracting a growing community of diabetics who are using its free and open-source technology to hack their insulin delivery.

The OpenAPS community aren't the only ones to have had this idea. In 2013, Bryan Mazlish, a father with a wife and young son who both have Type 1 Diabetes, created the first automated and cloud-connected closed-loop artificial pancreas device. In 2014, he founded SmartLoop Labs – now known as Bigfoot Biomedical – to scale and commercialize the development of an automated insulin delivery system based on his invention.

9. Connected inhalers

Like diabetes, asthma is a condition that impacts the lives of hundreds of millions of people across the world. Smart technology is beginning to give them increased insight into and control over their symptoms and treatment, thanks to connected inhalers.

The biggest producer of smart inhaler technology is Propeller Health. Rather than producing entire inhalers, Propeller has created a sensor that attaches to an inhaler or Bluetooth spirometer. It connects up to an app and helps people with asthma and COPD (Chronic Obstructive Pulmonary Disease, which includes emphysema and chronic bronchitis) understand what might be causing their symptoms, track uses of rescue medication, and also provides allergen forecasts.

One of the benefits of using a connected inhaler is improved adherence – in other words, medication is taken more consistently and more often. The Propeller sensor generates reports on inhaler use that can be shared with a patient's doctor, and show whether they are using it as often as is prescribed. For patients, this provides motivation and also clarity, showing how the use of their inhaler is directly improving their condition.

10. Connected contact lenses

Medical smart contact lenses are an ambitious application of the Internet of Things in a healthcare context. While the concept has a great deal of potential, so far, the science hasn't always managed to live up to expectations.

In 2014, Google Life Sciences (now known as Verily, a subsidiary of Google's parent company Alphabet) announced it would be developing a smart contact lens that could measure tear glucose and provide an early warning system for diabetics to alert them when their blood glucose levels had dropped or risen beyond a certain threshold. It partnered with Alcon, the eye care division of pharmaceutical company Novartis, for the project.

However, the project attracted a great deal of skepticism from researchers who believed that the idea of measuring blood glucose levels via tears wasn't scientifically sound – and ultimately, they were proven correct. After a lengthy period with no real news about project developments, in November 2018 Verily confirmed that the project was being shelved.

But other medical applications for smart contact lenses might prove more successful. Verily is still working on two smart lens programs with Alcon, which aim to treat presbyopia (long-sightedness caused by a loss of elasticity in the lens of an eye) and cataract surgery recovery.

11. The Apple Watch app that monitors depression

Wearable technology doesn't always have to be designed with a medical use in mind to have healthcare benefits. Takeda Pharmaceuticals U.S.A. and Cognition Kit Limited, a platform for measuring cognitive health, collaborated in 2017 to explore the use of an Apple Watch app for monitoring and assessing patients with Major Depressive Disorder (MDD).

The results from the exploratory study were presented in November 2017 at pharma and biotech conference CNS Summit.

The study found a very high level of compliance with the app, which participants used daily to monitor their mood and cognition. The app's daily assessments were also found to correspond with more in-depth and objective cognition tests and patient-reported outcomes, showing that cognitive tests delivered via an app can still be robust and reliable.

While the study was only an exploratory pilot, it has demonstrated the potential for wearable tech to be used to assess the effects of depression in real-time. Like other smart medical devices that gather data, the Apple Watch app could also give patients and healthcare professionals more insight into their condition, and enable more informed conversations about care.

12. Coagulation testing

In 2016, Roche launched a Bluetooth-enabled coagulation system that allows patients to check how quickly their blood clots.

This is the first device of its kind for anticoagulated patients, with self-testing shown to help patients stay within their therapeutic range and lower the risk of stroke or bleeding.

Being able to transmit results to healthcare providers means fewer visits to the clinic. The device also allows patients to add comments to their results, reminds them to test, and flags the results in relation to the target range.

13. Apple's ResearchKit and Parkinson's Disease

In 2018, Apple added a new 'Movement Disorder API' to its open-source Research Kit API, which allows Apple Watches to monitor Parkinson's Disease symptoms.

Normally symptoms are monitored by a physician at a clinic via physical diagnostic tests, and patients are encouraged to keep a diary in order to give a broader insight into symptoms over time. The API aims to make that process automatic and continuous.

An app on a connected iPhone can present the data in a graph, giving daily and hourly breakdowns, as well as minute-by-minute symptom fluctuation.

Apple's ResearchKit has also been used in a number of different health studies, including an arthritis study carried out in partnership with GSK, and an epilepsy study that used sensors in the Apple Watch to detect the onset and duration of seizures.

Apple is keen to tout the potential for its apps to aid with medical research and care, and to that end, in 2017 it launched CareKit, an open-source framework designed to help developers to create apps for managing medical conditions. Unlike HealthKit, which is aimed more at general fitness and wellbeing, CareKit can be used to design apps with a specific medical purpose – so watch this space for more medical innovations that make use of iPhone and Apple Watch technology.

CHALLENGES

1. Data security & privacy

One of the most significant threats that IoT poses is of data security & privacy. IoT devices capture and transmit data in real-time. However, most of the IoT devices lack data protocols and standards.

In addition to that, there is significant ambiguity regarding data ownership regulation. All these factors make the data highly susceptible to cybercriminals who can hack into the system and compromise Personal Health Information (PHI) of both patients as well as doctors.

Cybercriminals can misuse patient's data to create fake IDs to buy drugs and medical equipment which they can sell later. Hackers can also file a fraudulent Insurance claim in patient's name.

2. Integration: multiple devices & protocols

Integration of multiple devices also causes hindrance in the implementation of IoT in the healthcare sector. The reason for this hindrance is that device manufacturers haven't reached a consensus regarding communication protocols and standard.

So, even if the variety of devices are connected; the difference in their communication protocol complicates and hinders the process of data aggregation. This non-uniformity of the connected device's protocols slows down the whole process and reduces the scope of scalability of IoT in healthcare.

3. Data overload & accuracy

Data aggregation is difficult due to the use of different communication protocols & standards. However, IoT devices still record a ton of data. The data collected by IoT devices are utilized to gain vital insights.

However, the amount of data is so tremendous that deriving insights from it are becoming extremely difficult for doctors which, ultimately affects the quality of decision-making. Moreover, this concern is rising as more devices are connected which record more and more data.

4. Cost

The situation is such that it has given rise to “Medical Tourism” in which patients with critical conditions access healthcare facilities of the developing nations which costs them as less as one-tenth. IoT in healthcare as a concept is a fascinating and promising idea. IoT has not made the healthcare facilities affordable to the common man yet. The boom in the Healthcare costs is a worrying sign for everybody especially the developed countries.

However, it hasn't solved the cost considerations as of now. To successfully implement IoT and to gain its total optimization the stakeholders must make it cost effective otherwise it will always remain out of everyone's reach except the people from the high class.

CONCLUSION

Approximately 60% of global health care organizations have already implemented Internet of Things technologies, and an additional 27% are expected to do so by 2019. Traditional health care is witnessing a paradigm shift as digital transformation puts technologically advanced and connected products in the hands of consumers and gives patients and physicians even in the poorest and most remote locations better access to health care facilities. This paper attempts to take both the pros and cons of using MIOT into scrutiny and figure out a probable balanced approach so that this remarkable field does more good than harm in the coming future.

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A RESEARCH ON NON-PERFORMING ASSETS

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INTRODUCTION

A non performing asset (NPA) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days. Its basically a defaulter of loan ,who was initially an asset for the Bank as a Borrower but due to defaulting & not paying the dues/debts for a longer period of time, has been declared a Non-Performing asset for the Bank.

STATEMENT OF PROBLEM

A Research on problem of NPA/Defaulter borrower faced by the Banking sector.

OBJECTIVE OF THE RESEARCH

To study & analyse the importance & urgency to wipe out NPA from India.

To understand the fact that what level of burden it has on the Nation.

To highlight the main root cause of elements leading to NPA's.

To analyse its history & future effects.

To find a full proof, hard core solution to end the problem of NPA in India.

SCOPE OF THE STUDY

Victims of NPA's.

NPA as a vicious circle around progress.

Private & Public sector banks.

Causes & Effects of NPA's on the progress of Banking sector.

Some basic measures to curb the level of NPA's currently prevailing in India.

RESEARCH METHODOLOGY

The process & method of research is quite descriptive to get into the depth of how NPA is eating up the progress of most of the countries mainly India.

The causes & effects to be focussed on.

The Data & analytics are secondary.

The general review of the People, Bankers, Branch managers etc. are fresh & primary data.

Basically all this data is analysed inorder to land onto a generalised conclusion.

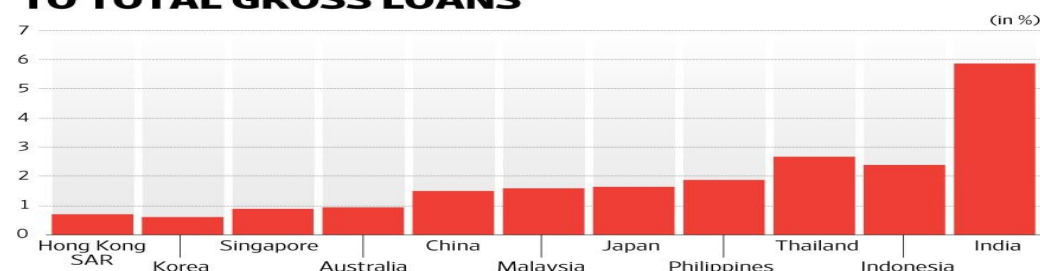
Analytical research has been the backbone of this topic.

The research has concentrated on NPA as a very big hurdle on the development of the country.

Basically ,this research has been initiated to check as to why this problem is just piling up & unable to get orted with so many measures.

COUNTRY WISE NPA ANYLSIS

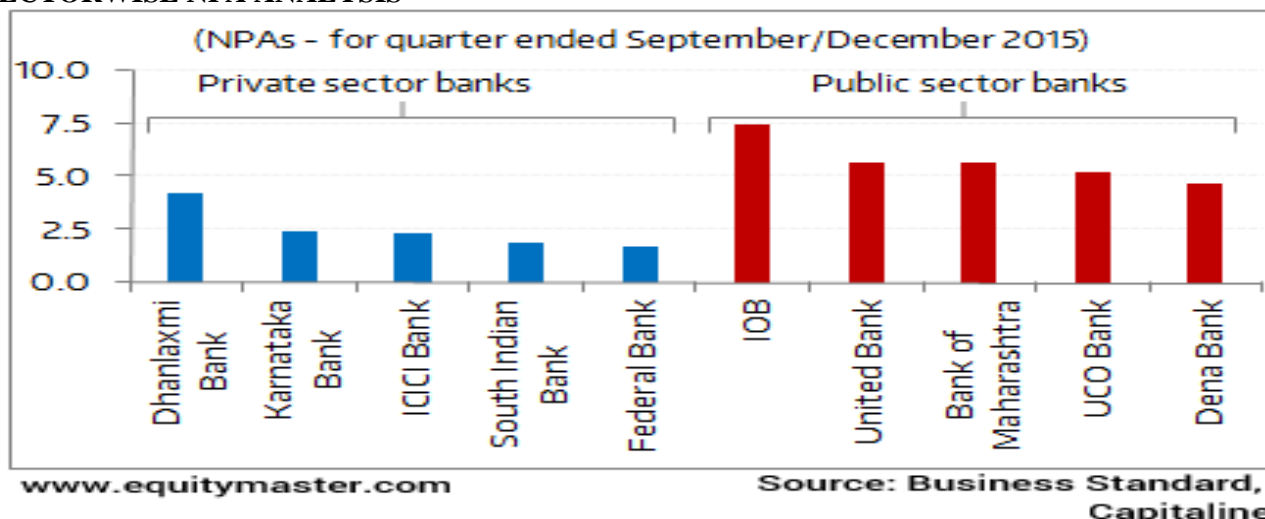
RATIO OF NONPERFORMING LOANS TO TOTAL GROSS LOANS



Note: Data are as of 2015 for Hong Kong SAR, India, Indonesia, Japan, Malaysia, the Philippines, Singapore, and Thailand; as of 2015:Q3 for Australia; as of 2015:Q2 for China; as of 2014:Q2 for Korea.

Source: IMF, Financial Soundness Indicators database

SECTORWISE NPA ANALYSIS



FINDINGS

- It has been simply noticed that 2 factors are getting badly effected.
- India as a country & Public sector banks specially.
- The above data clearly discloses the fact that India as an economy is getting very poorly effected with the defaulters of loan.
- Also it highlights the hardships of the public sector banks to get back the bad loans.
- It has also been noticed apart from Middle class people, unfortunately unable to return back some part of the loan, there are many HNI's who have been defaulting.
- There has been some ways to curb the NPA's but most of them has been not so successful.
- Many are genuine cases, many are intentionally committed, many defaults have taken place due to ignorance on the part of bankers, some have taken place due to loopholes in the system.
- It has been noticed due to weakness in collecting this bad loans ,most of the private sector banks ,inorder to recover the amount, increase the charges on other general & daily operations of all the customers for eg:- Amount charged on maximum number of ATM transactions, Minimum balance penalties etc..hampering the other existing customers as well.
- And in case of public sector bank finally the Tax money gets affected directly or indirectly in some cases.

LIMITATIONS

- Couldn't personally cover up a huge area due to time constrains.
- Accessibility & approachability issues at some places.
- Reluctance / Hesitation noticed at some branches & banks.
- Some diplomatic replies were received in place of genuine answers.
- Not everyone took it positively, which effected the research work.

SUGGESTION & RECOMMENDATIONS

- Strict norms to be made while disbursing loans, tying up with certain conditions.
- KYC norms must be focussed on & mist be critically examined.
- People should understand this problem, take it seriously & contribute for the same.
- Sincere efforts & steps be taken to revive this poor condition.
- To recover these bad loans,some more attractive offers be given & atleast cover up some part of it to reduce the burden on the nations progress.
- Loans should not be disbursed just to cover up targets of sales or to earn revenue through interest.

CONCLUSION

- Disbursing loans cannot be stopped as it will hamper the growth & progress of the country.
- Systematic planning system & body must be made & executed to curb loopholes in the system.
- Its quite a human nature to spend the loan amount easily & lavishly ,as its not hard earned at that moment but to be paid later, a condition may help overcome this situation.
- Discipline in KYC norms, Proper verification of Background & credit worthiness of the borrower etc ,if examined well in advance, birth of NPA's can be avoided, perhaps it depends on how professionally, smartly & Tactfully the situation is handled & managed enough.

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+VE - WORKPLACE SPIRITUALITY @ HRM- STEP TOWARDS FULL LIFE

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ABSTRACT

Employees effectiveness is driven by the workplace and by providing them a meaningful job assignment by spiritual means is a trump- card for their life living to the fullest. By spirituality imbibing in the job, gives the employee a delight, contentment and hope, which automatically generates employee engagement and also organizational commitment. Such employee produce better job performances and gives high productivity to the institute. There is always positivity in job behaviour dimensions. It is reported that there is a great vigour and affective commitment in the job- analysis. Spirituality is a way for celebrating the self-behaviour of the employees which jeers the organisation's environment. The center of the organisation is moulded around values and these values are inspiring which is shared by organisation and its people. Everyone gets success when there is a great facilitation among everyone in the organisation and this gives success, over-all. Together everyone works as a team and with creativity at its peak, values are accomplished and balance the work-place spirituality and life.

Keywords: Effectiveness, workplace, trump-card, commitment, positivity, vigour, job-analysis.

INTRODUCTION

Positive Workplace Spirituality has emerged in a new-form and is an emerging topic of enquiry in the OB of today. There has been a growing desire for the employees to find the higher dimension of work and efficiency of spirituality to lead the life to the fullest. There is an experience of inter-connectedness in the work-process which maintains the values like kindness, courage, ethics, character, honesty and thus enhancing the team-performance and over-all harmony. There is always a win-win situation in this positive environment both for the employees and the environment. It is a way of celebrating the self- good behaviour by the employees that enables the organisation to be different. Spirituality discussion is the core essence and the values are inspiring for the people in the environment. Community enables the people to grow and find meaning in their work and life. There is a good team-work and a family-sense. Creativity evolves and productivity is at peak. All works are accomplished. Tasks are completed. Self-confidence, self- esteem and self-morale are developed to the top-most senses, on the both the sides- employees as well as organisation-level. Thus a person's positive - inner self-orientation towards his work and interaction to the community in work-environment is known as Positive-Workplace spirituality.

LITERATURE REVIEW

Positive Workplace Spirituality as defined as , “ a framework of organisational values evidenced in the culture that promotes employees experiences of transcendence through the working processes, facilitating their sense of being connected to other in a way that provides feeling of completeness and joy.” (Giacalone and Jurkiewicz). According to (Ashmos & Duchon), Positive Spirituality at Workplace is – “the recognition that the employees have an inner life that nourishes and is nourished by meaningful work that takes place in the context of community.” Thus this spirituality at workplace has 3 components – the inner life, meaningful work and the community at large. Thus, in this way, a community is a place in which people experience personal growth, value themselves and have a sense of working together. Meaning of work includes how one feels important, energised and joyful at work. How one taps the dimensions of human experiences with regards to physical, intellectual and spiritual aspects. Thereby creating hopefulness, awareness of personal values, Concerns for spirituality, thankfulness, mindfulness and gratefulness towards human aspects.

AIMS AND OBJECTIVES

- 1) To study about Positive - Work-place spirituality with aspects to HRM.
- 2) To know and calculate how the Work-place Spirituality can be imbibed to 100 % success
- 3) To know how one can adapt oneself to – spirituality in Work-place
- 4) To be aware about positive Spirituality used in Work-place

HYPOTHESIS

Can the process of ... positive Work-place spirituality bring about good HRM. There are 3 (three) - hypotheses which can be summarised as:-

H1: Workplace spirituality dimensions have a positive impact on job satisfaction.

H2: Workplace spirituality dimensions have a positive impact on trust.

H3: Trust has a positive and significant impact on job satisfaction.

METHODOLOGY

The Method considered for this research is Qualitative Phenomenological Approach, because of the philosophical perspectives and based on people's experiences.

DATA COLLECTION

The collection of Data was made through Secondary Data, which was collated from the published sources from the Books, Journals, Newspapers and internet resources.

DATA ANALYSIS

World is transforming and in today's environment all feel uncertain, insecure and under great threat. Corporate downsizing, lay-offs, outsourcing have become a part of life. Outsourcing and re-engineering have multiply insecurities manifold. There has been severe anxieties, fear psychosis and stress- with depressive symptoms. Spirituality now helps and when the spiritual therapies are adopted by the work-companies, it improves everyone productivity and also health aspects in all dimensions. Thus Spirituality at Work-place has become the buzz-word for sustenance of the Organisation as a whole. Spirituality gives access to higher meaning, values, abiding and purposes and aspects of the self and to have a richer and a more creative life. Signs of Positive Higher Spirituality at Workplace are – ability to think out of the box, humility, and divine energies to go beyond ego, beyond me attitude and cover the day-to-day concerns extraordinarily and be a visionary leader. Apart from religious doctrine, Workplace Spirituality has got a potential relevance with the prosperity of employee, organisations, societies and nations as a whole. It will enhance commitment and job-satisfaction. It will give firmness to the organisation. There will be ethical moral value- environment. There will be an inter-connectivity and trust in the work-process, which will initiate harmony in the organisation work-processes. People become highly productive, innovative and co-operative in the right positive environments. They add value to their works and this creates a sense of meaning and job-satisfaction. It generates happy-atmosphere and productivity rises. People thrive and flourish in the Positive Workplace environment with the spirituality as the base. In the Spirituality Work-place mixed with Positivity, employees and the organisation prospers because :-

- Special interest is taken for development and success by all.
- There is always a scene of encouragement.
- Everyone is appreciated, challenged and excited to do better.
- There is a promotion of trust and environment.
- Employees are coached, supported and thanked for their right doings
- Positive emphasis are placed on ethics, relationships, inspirations and reflections.
- Successes are noticed and celebrated.
- Efficiency and effectivity is enhanced among everybody

Thus, from the above inferences, we can get some of the characteristics of the Positive Workplace Spirituality at HRM can be elucidated :-

- **Emphasizing On Sustainability:** A systemic view of work and contribution in the world promotes links between sustainability and an awareness of limited resources. This approach to design, production, and commerce is being increasingly associated with spirituality because it seeks to contribute to the greater good in the world.
- **Values Being Contribution:** More than providing excellent service for customers, global service indicates a larger sense of responsibility to contribute to the betterment of the world. While the local family business may not provide products and services that will improve the quality of life in third world countries
- **Prizes Creativity Enhanced:** Creativity is a necessary part of the business cycle. When technology, markets shifts, and demographic changes force organizations to rethink products and services, creativity is the key to successfully navigating those changes.
- **Promotes Vocation Enhancement:** Companies that understand workplace spirituality go beyond being supportive of learning and development by helping employees develop a sense of "calling" or identification of passion about their lives and their work. Such companies emphasize the discovery and appropriate

utilization of individual giftedness and encourage employees to use their unique skills within the organization.

- **Developing Values And Principles:** Organizations have begun to realize the benefits of treating the whole person by actively supporting the formulation of ethical principles that promote personal growth, long-term character development, and personal connections of faith and work development.
- **Developing Self-awareness :-** One should know what he believes and values at, what really motivates that person. How one should be living in and being response at that moment.
- **Vision And Value- Led :-** We should be acting on our principles and deep principles and living accordingly. See the Holistic larger patterns, relationships and connections with a lot of sense of belongings.
- **Compassion with a feeling of Diversity :-** Value the person in an organisation with a “deep- feeling” and deep- empathy and value other people for the differences, because no one is perfect.
- **Humility :-** Be humble always and have a sense of being a player in the larger scenes.
- **Positive Quality :-** Learn and grow from mistakes, setbacks and sufferings, because you ought to grow always and be transformed, after every negativity.
- **Sense of Vocation :-** One should have a feeling to serve and give something to nature- Mother Earth.

Hence, Workplace spirituality dimensions have a positive impact on job satisfaction, and then have a positive impact on trust, and this Trust has a positive and significant impact on job satisfaction, and so Positive Workplace Spirituality @ HRM.... Can be attained.

SUGGESTIONS

- A person's inner self oriented towards his/ her work should be made positive by the therapies like – MEDITATION (NEW-AGE) – **GRATEFULNESS & THANKFULNESS**
- Interaction with the environment should be monitored by their behavior aspects with a 360- degree appraisal throughout the working hours.
- How the person engages in work- areas should be monitored thoroughly, and if need be do a one-to-one counselling with a counsellor- psychotherapist instituted in the organization.
- Everyone should be given a chance to dream and be given a chance to lead on in a positive way. Get up, take a break if tired. Take counselling if needed.
- Think of others. Be empathetic, not sympathetic.
- Try to notice the little things around you and at your work-place.
- Slow- down and have broader – vision than a micro- perspectives.
- Have a gratitude- attitude always and appreciate others to be a good humane- human being. This will lead to compassion and humility qualities and which will inculcate good vibes in selves. Prepare a Gratitude- Journal, whenever, one is free to get goodness in life.

CONCLUSIONS

Some of the conclusions which can be elucidated are :

- Positive Workplace Spirituality has a good impact on job- satisfaction.
- Trust comes automatically when there is a high degree of positive Workplace spirituality aspects.
- There is a significant impact on effectiveness on employees over-all productivity.
- There is a positive mediating impact between the relationship of work-place spirituality and job-satisfaction.
- There will be a sense of great purpose and relevance after adapting to workplace spirituality.
- Better ethical work-life balance will be followed in an organization.
- A great respect for diversity will be followed in the environment.
- There will be low stress, less ego and less organizational conflict, hence great mentoring and competitive advantage at the work-place.

- High Levels of creativity and innovation will enhance the conservation of resources in the Workplace environment.

Some of the **obstacles**- according to my perceptions can be, through the following points:-

- The Employees should not confuse the organization with a new religion, and blame the organization for bringing about some new religion-ages.
- Faith should not be the parameters of this dimension. Everyone should be allowed to do whatever faith he aspires to believe in.
- The people in the organization should not think that it is a desperate attempt by the organization to do something spooky.
- The people in the environment should not laugh at it and consider it as a management fad.
- The Management should be ready to accept and face the setbacks if any.

LIMITATIONS OF THE STUDY

- Though the study is adding value, but polishing is needed.
- Time – limitations were other constraints.
- Resource – constraints were unavoidable.
- Limited dimensions were taken for study.
- Issue of generalizability were observed

To conclude and sum up, there are fantastic lines from the book written by Louise L Hay, and it says this :- “In the infinity of life, where I am, all is perfect, Whole and complete. I believe in a power far greater than I am, That flows through me, every moment of every day.” SO BETTER ARISE AND AWAKE TILL YOUR DEEDS ARE NOT FINISHED- Swami Vivekananda. The end of education is –CHARACTER. Our life’s principles should be made up of Holistic principles and values. Our life may have good times or bad times, but values should never be forsaken for selfish ulterior motives. It should always be upheld. As we sow so shall we reap. Nature nurtures nature. Samastha Loka Sukhino Bhavanthu : Let the whole world attained happiness to the fullest, BY OUR positive – workplace therapies. We can attend the essence of 18 puranas in one phrase :- “ Paropakarah Punyaya, Papaya Parapeedanam.”= (HELP EVER, HURT NEVER). In other words, FORGIVE AND FORGET..... and living in Present moments always, by adopting -positive Workplace Spiritualities methodologies to live the life to the fullest.

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SMART MEDICINE BOX

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ABSTRACT

In today's fast life people tend to be busy. Busy life is the main reason for the ignorance towards health. Even well-educated people don't pay attention towards their health. Many time people forget to consume their medicines on time. Some medicines if not taken on time will pose serious danger to the health of an individual. Aged people tend to forget many time which medicine to be taken on what time. As a solution to this, the paper proposes a smart medicine box which will preserve all medicines as well as remind the individual which medicine to be taken on what time.

Index Terms: *Medicine, reminder, smart medicine box*

INTRODUCTION

In today's fast paced-life, people don't have time for their personal and health related issues. They tend to ignore medicines or forget to eat medicines on time. The most common reasons for not taking medicines on time are, missing the timings of the dosage, taking wrong medicines in wrong proportion, getting confused between similar looking medicines etc. Timely medications is important for getting cured. The proposed system in the paper is a smart medicine box which resolves most of these issues. Smart medicine box is a system which reminds a user about his intake of medicines, an alert system, which will raise an alarm on the time set by the user. Along with a ringing alarm, a blinking LED besides the medicines helps the uneducated users to identify which medicine is to be taken. It uses a GUI which stores and displays the name and timings of the medicines. A GSM module is used to send a message to the user's cell phone if he isn't physically available to take medicines which reminds him/her about the intake of the dosage.

LITERATURE REVIEW

According to the recent survey conducted by World Health Organization, it is learned that the age group of people above 60 years are around 80% who are prescribed with the medicines that are to be administered 2-4 times a day. The increase in heart diseases and diabetes among this age group makes it necessary for them to take medicines on regular basis without fail. Most of the times, they forget to take the medicines on right time. To overcome this, the common system used in market is an simple alarm with the pill box which raises an alert when on the time to take medicines.

But there some loopholes and shortcomings in these systems like it only reminds the user about the intake and does not check if the right medicine is included in the intake, neither is checks if the dosage has been taken by the users or not. No timely alerts regarding refilling the box or to order new medicines are send. These shortcomings are addressed in the proposed system in the paper

WORKING PRINCIPLE

To cope up with the evolving technology, the pill box has been implemented with various modules without compromising the portability of the project.

I. GUI

It is an interactive medium which connects user to the hardware. The 3.2Inch TFT Touch Shield for Arduino is a subordinative touch screen TFT LCD, 320x240 resolution, integrate controller on board. Here SPI interface is used for displaying images, or to draw geometric figures with its functions. It is a standardized Arduino interface as well as harmonious with the development boards.

FEATURES OF 3.2INCH TFT TOUCH SHIELD

It includes of an Onboard stand-alone touch controller which is better touching than solutions that use Analog Digital pins directly for touch control. It provides an easy to store photos photos for displaying using a Micro SD slot. It is handy for porting and comes along with STM32. Touch screen Controller used is XPT2046. It uses RGB color system and 65K colors.

J. ALARM

The smart medicine reminds the user not only by raising an alarm but also by sending SMS. An additional alarm is raised by the system when the container gets empty, to remind an individual to refill it

A real time clock is used to keep the track of the current time of the system. RTC can be operated even in the sleep mode, it can wake the device in the sleep mode using program.

SOME DETAILS ABOUT RTC

We need a button sized battery of 3 V connected to the diode to the 3.3 V pin to keep the RTC alive in case the system is put on sleep mode before the standard USB or VIN power is disconnected.

When the module has the backup battery installed, then it retains the time, even when it is not powered with the Arduino. In this way, the time doesn't reset every time the module is turned off or turned on.

It just uses I²C communication. It uses only 2 pins to communicate with the Arduino.

K. LED

LEDs are the small and powerful lights that indicates the users which medicines to be picked for intake. This is helpful for those patients who have can't read from the interface screen

L. GSM

In case the user is not present nearby enough the surrounding area to hear the alarm, he/she would still get a text message on his/her cell phone. The Arduino GSM Shield will be used to send a text message on the user's cell phone indicating the time of dosage as well as the stocking of medicines.

M. ARDIUNO

Arduino contains both physical circuits and software or IDE (Integrated Development Environment). Arduino is a larger board and offers significantly more digital, analog pins. It features the ATmega16U2 which is programmed as a USB-to-serial converter. The Mega has four different hardware serial ports, for maximum speed. All the above hardware components are connected to the Ardiuno and its software i.e Ardiuno IDE helps in programming the code in an efficient way.

N. INFRARED SENSORS

Infra Red sensor is used to detect the motion of the object by measuring the heat generated by them. In the proposed paper it is used to check if there are some medicine tablets left in the container. It is of two types Active IR sensor and Passive IR sensor. Active IR sensor keeps emitting IR rays and when it doesn't get the same amount of rays back to itself, it detects an object. A Passive IR sensor detects the object without emitting the rays and by directly measuring the object from the temperature. If it detects tablets on the time set by the user then it will notify the system and the alarm will buzz for a minute. If the user does not respond to the alarm then it will send a message to the user's cell phone using GSM module. Therefore, sensor plays an important role in this project

FEATURES OF IR SENSOR

It consists of IR transmitter and IR receiver.

IR transmitter is a light emitting diode which emits infrared rays. The light emitting diode looks like a normal LED but the rays emitted by the transmitter are invisible to the human eye.

IR receiver is called as IR sensor because it detects the rays from the IR transmitter.

LIMITATIONS AND RECOMMENDATIONS

There are some aspects on which we need to work, such as, RTC, it resets and starts with the standard time and date every time it is powered. So to avoid that we need to keep check on it, whether the board is fully powered or not. It only detects if the medicine is taken or not, and does not check in what proportion it is taken. Following the risk analysis structure to analyze the risks and hazards and develop some strategies to mitigate the risks. The project does not harm one's safety and does not endanger the surrounding.

The flow of action of the system is represented using the flowchart

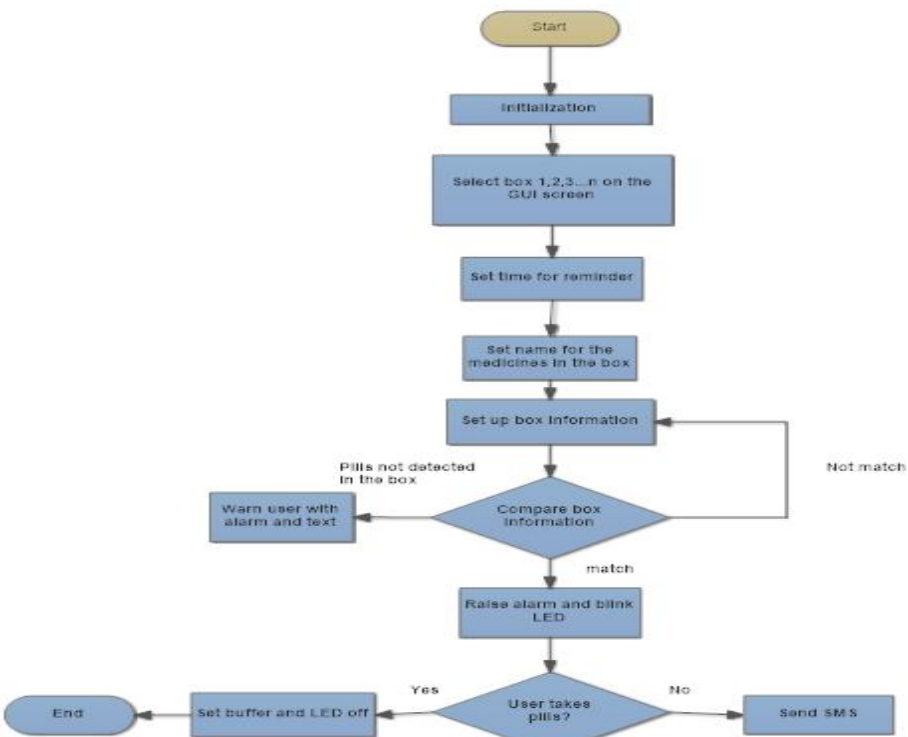


Figure: Flowchart of the project

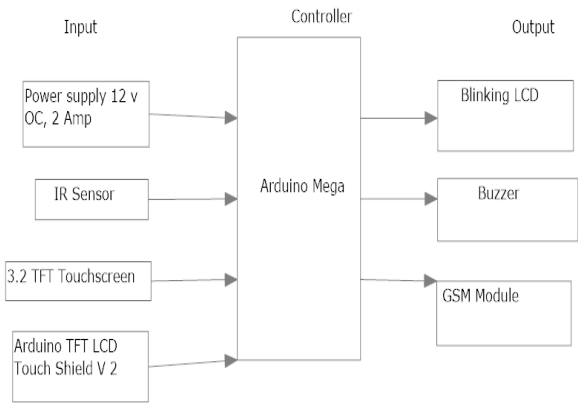


Figure: Block Diagram

User Interface and design of the model

Figure : User interface for selecting the medicine	Figure: User interface for setting the alarm

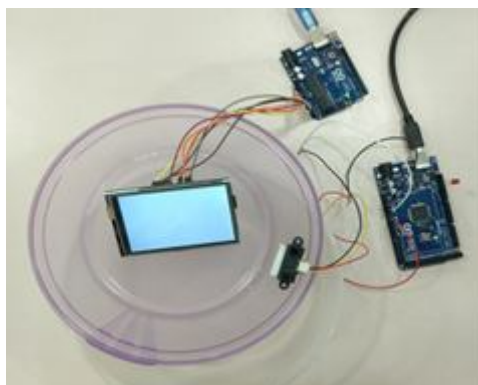


Figure: Connected Hardware

BENEFITS

It will release the work load of the nurses and the care takers who have to keep reminding the patient about their medications and personally looking after their intakes, once they set the timings and fill the container of that particular medicine. It will guide you for the pills to be taken. It will also remind you to refill the container once it is empty. The user interface will be friendly enough for all the users irrespective of their age. If the user is hearing-impaired, then it will help him recognize the medicines to be taken through the blinking LED on the top of the lid of that specific container. There will be separate container for every type of medicine so the user does not get confused with the different medicines in the same box. He/she can pick one tablet at a time from that particular container. It is also safe for storing medicines in it. The rays of the sensor have no harmful effect on medicines.

CONCLUSION

The complications from the previous traditional pill-box are resolved by introducing an technically advanced med-box, which supports all kind of technologies needed to build a successful and portable med-box. This technology is a combination of the vintage technologies. The sensing techniques of the sensors in the med-box makes it smart. The efficient and advanced techniques of GSM helps in bridging the gap of communication between the chemist and the one who refills the box, it also alerts the user, thus aiding the patient

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INTER-DISCIPLINARY NATIONAL RESEARCH CONFERENCE ON CHANGING TRENDS IN
BANKING COMMERCE & TECHNOLOGY

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ABSTRACT

Steganography is the process of art and science in such a way that no one apart from sender and intended recipient even realizes that the communication is going on. It is also used to authenticate the digital images. Steganography is categorized into spatial domain and frequency domain techniques. This paper presents a cryptography based technique to authenticate the images and can be used to prevent image forgery. While steganography has been around for centuries, the Digital Revolution has sparked a renewed interest in the field. This paper, however, focuses specifically on the techniques employed in hiding information in digital image files.

Keywords: Authentication, security, secret message, steganography, encryption.

INTRODUCTION

Steganography is derived from the Greek word which means covered writing and essentially means “to hide in the plain sight”. As defined by steganography is the art and science of communicating in such a way that the presence of a message cannot be detected. Simple steganographic techniques have been in use for hundreds of years, but with the increasing use of files in digital media new techniques for information hiding have become required. This paper examines some early examples of Steganographic process and the general principles behind its usage. Then we will look at why it has become such an important issue in recent years. There will then be a discussion of some specific techniques for hiding information in a variety of formats and the attacks that may be used to bypass steganography. Figure 1 shows how information hiding can be broken down into different areas. Steganography can be used to hide a message intended for later retrieval by a specific individual or group. In this case the aim is to prevent the message being detected by any third party. Other major area of steganography is copyright marking, where the message to be inserted is used to assert copyright over a document.

steganography

(covered writing, covert channels)

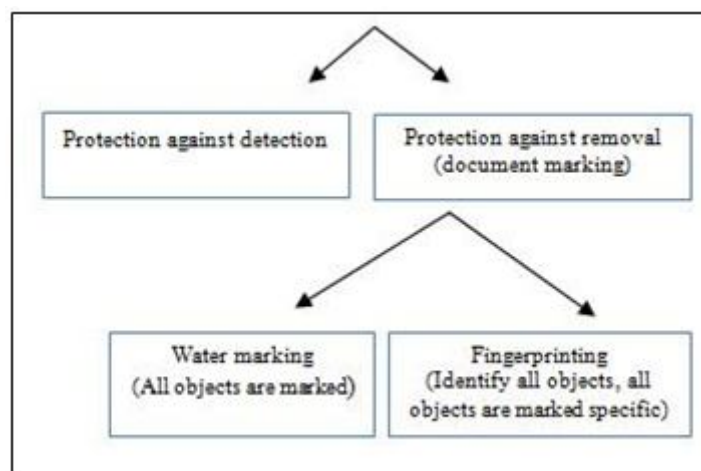


Figure-1: Types of steganography

Steganography and encryption are both used to ensure data confidentiality. However the main difference between them is that with encryption anybody can see that both parties are communicating in secret but not in steganography. Steganography hides the existence of a secret message and in the best case nobody can see that both parties are communicating in secret. This makes steganography suitable. Adding encrypted copyright information to a file could be easy to remove but embedding it within the contents of the file itself can prevent it being easily identified and removed. Table 1 shows a comparison of different techniques for communicating in secret. Encryption, in which secure communication requiring a key to read the information. An attacker cannot remove the encryption but it is relatively easy to modify the file, making it unreadable for the intended recipient.

Table-1: Comparison of secret communication techniques.

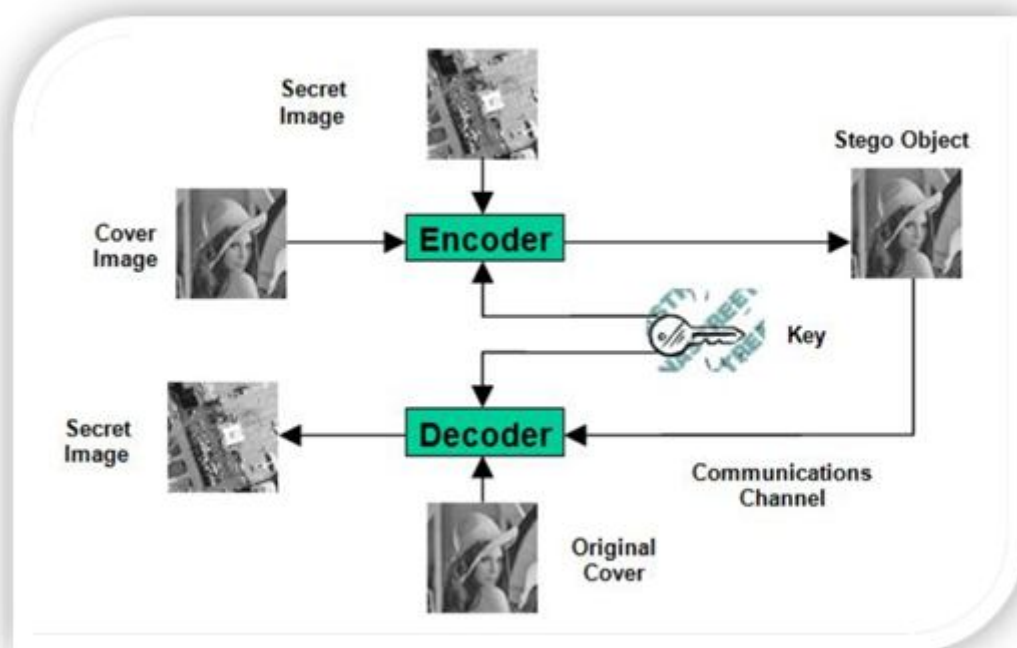
	Confidentiality	Integrity	Unremovability
Encryption	Yes	No	Yes
Digital	No	Yes	No
Signatures			
Steganography	Yes / No	Yes/ No	Yes

REQUIREMENTS OF HIDING INFORMATION DIGITALLY

There are a large number of different protocols and embedding techniques that made possible us to hide data in a given object. However, all of the protocols and techniques must satisfy all of requirements so that steganography can be successfully applied. Following are list of requirements that steganography techniques must satisfy:

The integrity of the hidden information after it has been embedded inside the stego object (image, audio, video etc.) must be correct. The secret message must not change in any way, such as additional information being added, loss of information or changes to the secret information after it has been hidden.

- The steganographic object must remain unchanged or almost unchanged to the naked eye. If the stego object changes significantly and can be noticed, it is possible that third party may see that information that is hidden and therefore could attempt to extract or to destroy it.
- In steganography, changes in the stego object must have no effect on the secret message. Imagine if you had an illegal copy of an image that you would like to manipulate in various ways. These manipulations can be simple process such as resizing, trimming or rotating the image. The secret message inside the image must survive these manipulations, otherwise the attackers can very easily remove the secret message and the point of steganography will be broken.
- Finally, we always assume that the attacker knows that there is hidden information inside the stego object, So we have to always on alert.



A key is often needed in the embedding process. This can be in the form of a public or private key so you can encode the secret message with your private key and the recipient can decode it using your public key. In embedding the information in this way, you can reduce the chance of a third party attacker getting hold of the stego object and decoding it to find out the secret information successfully. In general the embedding process inserts a mark, M , in an object, I . A key, K , usually produced by a random number generator is used in the embedding process and the resulting marked object, \tilde{I} , is generated by the mapping: $I \times K \times M \rightarrow \tilde{I}$.

After passing through the encoder, a stego object will be produced. A stego object is the original cover object with the secret information embedded inside. This object should look almost identical to the cover object as otherwise a third party attacker can see embedded information. After producing the stego object, it will then be

sent off via some communications channel, such as email, whatsapp etc, to the intended recipient for decoding. The recipient must decode the stego object in order for them to view the secret information. The decoding process is simply the reverse of the encoding process. It is the process of extraction of secret data from a stego object steganography, it would defeat the whole point of the process.

EMBEDDING AND DETECTING A MARK

Simple representation of the generic embedding and then after decoding process in steganography. In this example, a secret image is being embedded inside a cover image to produce the stego image. The first step is to pass both the secret message and the cover message into the encoder. Inside the encoder, several protocols will be implemented to embed the secret information into the cover message. The type of protocol will always depend on what information you are trying to embed and what you are embedding it in. For example, you will use an image protocol to embed information inside images, audio protocol inside audio.

In the decoding process, the stego object is fed in to the system. The public or private key that can decode the original key that is used inside the encoding process is also needed so that the secret information can be decoded. Depending on the encoding technique, sometimes the original cover object is also required in the decoding process. Otherwise, there may not be way of extracting the secret information from the stego object. After the decoding process is over, the secret information embedded into the stego object can then be extracted and viewed also. The generic decoding process again requires a key, K , this time along with a potentially marked object, \tilde{I} . Also required either the mark, M , which is being checked for or the original object, I , and the result will be either the retrieved mark from the object or indication of the likelihood of M being present in \tilde{I} . Various types of robust marking systems use different inputs and outputs process.

6. Private Marking Systems

Private marking systems is divided into different types but all require the original image. Type I systems use I to help and locate the mark in \tilde{I} and output the mark. Type II systems also require M and simply give a yes or no answer to the question

STEGANOGRAPHY USING IMAGES

Various steps and process of steganography are explained below using digital images

SIMPLE WATERMARKING

Watermarks vary greatly in their visibility; while some are obvious on casual inspection, others require some study to pick out. Various aids have been developed, such as *watermark fluid* that wets the paper without damaging it. A watermark is very useful in the examination of paper because it can be used for dating, identifying sizes, mill trademarks and locations, and determining the quality of a sheet of paper.



PROPOSED APPROACH

Image Enhancement

Spatial domain strategies, that is direct affected to the pixels.

Frequency domain strategies, in image it works on the Fourier rework

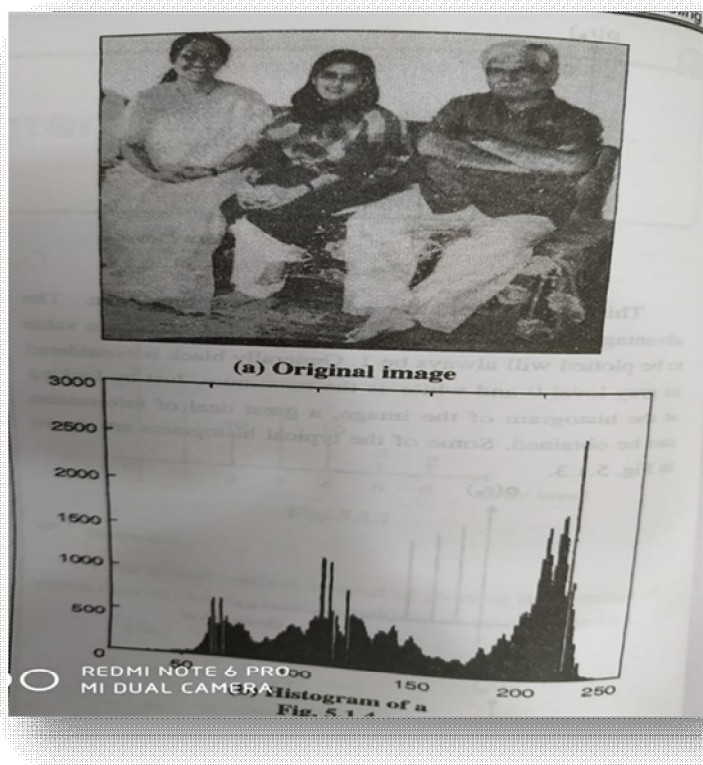


IMAGE PROCESSING

In image process, Morphology could be a tool that is employed to extract the elements of image so that illustration and description of the region shape form a sort of a skeleton and boundaries are provided [8]. Thus, the morphological operations and their operators also can be used for filtering, dilution and pruning.

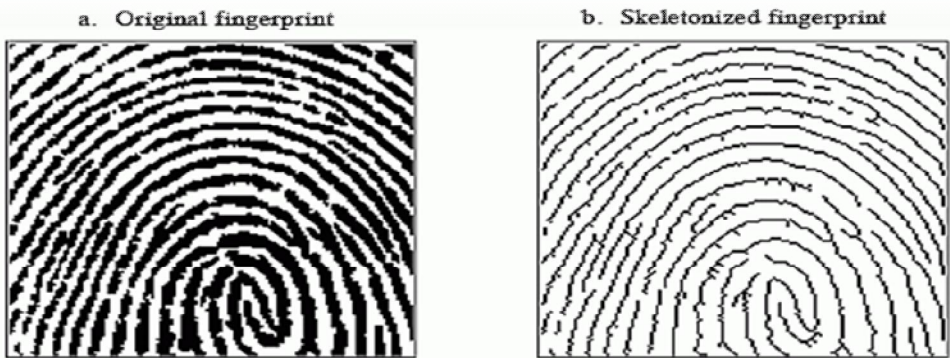
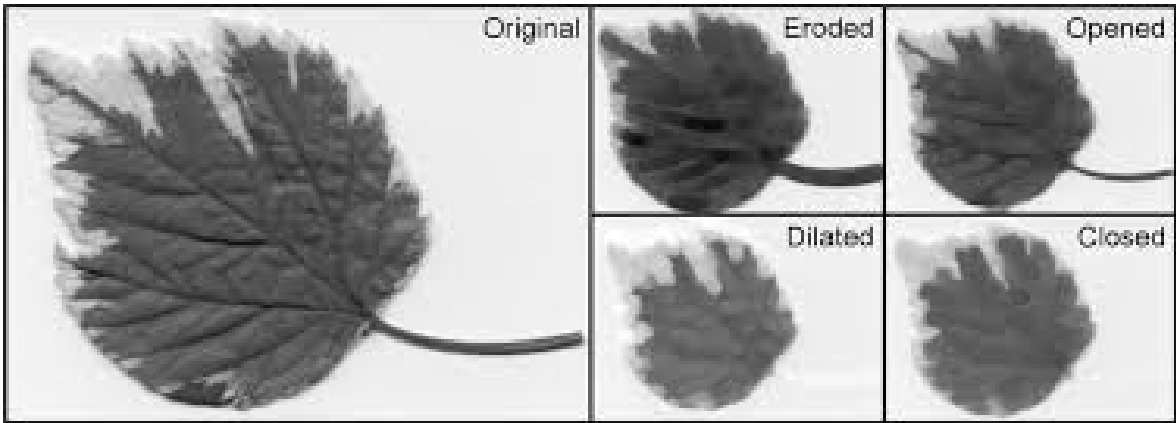


FIGURE 25-11
Binary skeletonization. The binary image of a fingerprint, (a), contains ridges that are many pixels wide. The skeletonized version, (b), contains ridges only a single pixel wide.

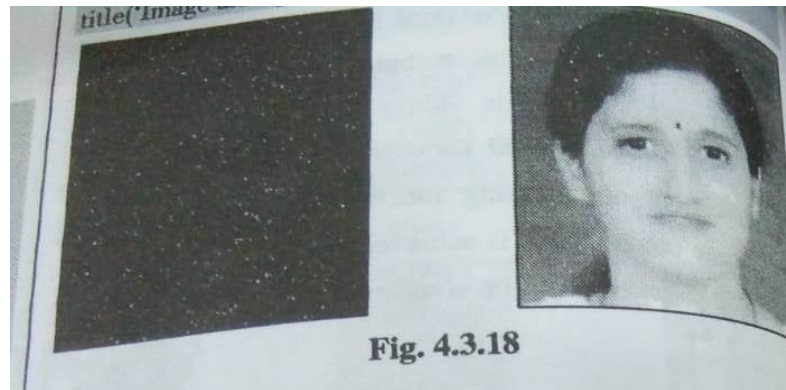


Fig. 4.3.18

a. Pixel numbering

		Column		
		C-1	C	C+1
Row	R-1	1	2	3
	R	8		4
	R+1	7	6	5

FIGURE 25-12

Neighboring pixels. A pixel at row and column $[R, C]$ has eight neighbors, referred to by the numbers in (a). Figures (b) and (c) show examples where the neighboring pixels are *connected* and *unconnected*, respectively. This definition is used by rule number four of the skeletonization algorithm.

b. Connected neighbors

		Column		
		C-1	C	C+1
Row	R-1			
	R			
	R+1			

		Column		
		C-1	C	C+1
Row	R-1			
	R			
	R+1			

		Column		
		C-1	C	C+1
Row	R-1			
	R			
	R+1			

c. Unconnected neighbors

		Column		
		C-1	C	C+1
Row	R-1			
	R			
	R+1			

		Column		
		C-1	C	C+1
Row	R-1			
	R			
	R+1			

		Column		
		C-1	C	C+1
Row	R-1			
	R			
	R+1			

MORPHOLOGICAL IMAGE PROCESSING

Basic Operation: The foundation of morphological Processing is in the mathematically rigorous fields of set theory . we will discuss some fundamental concepts of image set algebra which are the basis for defining the generalized dilation and erosions operations. Consider a binary valued source image function $F(j,k)$.

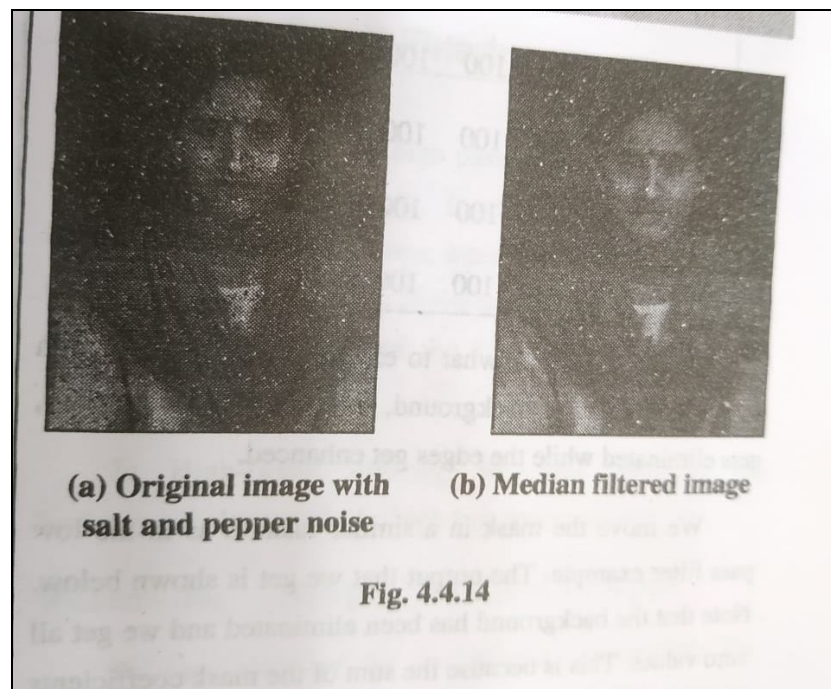
0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	1	0	0	0	0	0	0	0	0
0	0	1	1	0	0	0	1	1	1	1	0
0	0	1	1	0	0	0	1	1	1	1	0
0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0

(A)

(B)

1	1	1	1	1	1	0	0	0	0	0	0
1	1	0	0	1	1	0	0	1	1	0	0
1	1	0	0	1	1	0	1	1	1	1	0
1	1	0	0	1	1	0	1	1	1	1	0
1	1	0	0	1	1	0	0	1	1	0	0
1	1	0	0	1	1	0	0	0	0	0	0

(A) (A U B)



A) 1-Dimensional Linear Convolution

Write a program in Matlab to determine the Linear Convolution of a finite duration sequence $x(n)$ and $h(n)$. Accept the sequences $x(n)$ and $h(n)$ from the user. Display the output sequence $y(n)$. Plot the three sequences. Test on input: $x(n) = [1 \ 1 \ 1 \ 1 \ 1]$, $h(n) = [1 \ 2 \ 3 \ 4 \ 5 \ 6 \ 7 \ 8]$ {1-Dimensional}.

B) 2-Dimensional Linear Convolution

Write a program to determine the 2-D Linear Convolution of a finite duration sequence $x(n_1, n_2)$ and $h(n_1, n_2)$. Accept the sequences $x(n_1, n_2)$ and $h(n_1, n_2)$ from the user. Display the output sequences $y(n_1, n_2)$. Plot all three sequences. Test on input $x(n_1, n_2) = [1 \ 2 \ ; \ 3 \ 4 \]$; $h(n_1, n_2) = [5 \ 6 \ ; \ 7 \ 8 \]$;

C) Circular Convolution

Write a program in Matlab to determine Circular Convolution of the sequence $x(n)$ and $h(n)$. Accept the sequences $x(n)$ and $h(n)$ from the user and display the output sequence $y(n)$. Test on input: $x(n) = [1 \ 2 \ 4 \]$, $h(n) = [1 \ 2 \]$.

D) 2-D Cross and Auto Correlation

Write a program for determining 2-D Cross and Auto Correlation of sequence $x(n_1, n_2)$ and $h(n_1, n_2)$. Accept the sequences $x(n)$ and $h(n)$ from the user and display the output sequence $y(n_1, n_2)$. Test on input : $x(n_1, n_2) = [1 \ 2 \ ; \ 3 \ 4 \]$; $h(n_1, n_2) = [5 \ 6 \ ; \ 7 \ 8 \]$;

THEORY

Convolution is an integral concatenation of two signals. It has many applications in numerous areas of signal processing. The most popular application is the determination of the output signal of a linear time-invariant system by convolving the input signal with the impulse response of the system. The linear convolution of two continuous time signals $x(t)$ and $h(t)$ is defined by

$$y(t) = x(t) * h(t) = \int_{-\infty}^{\infty} x(\tau) h(t - \tau) d\tau$$

For discrete time signals $x(n)$ and $h(n)$, the integration is replaced by a summation

$$y(n) = x(n) * h(n) = \sum_{k=-\infty}^{\infty} x(k) h(n - k)$$

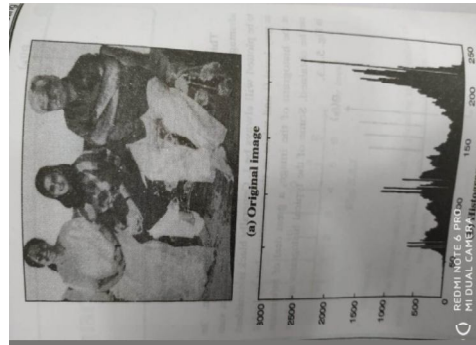
In the following program the inputs $x(n)$ and $h(n)$ are provided by the user. The **conv** function is used to calculate the linear convolution. In case of a 2 dimensional linear convolution, **conv2** is used.

If both f and h are periodic, with period N , then their convolution (as defined above) will yield an infinite result (assuming the signals are non-zero). However, we can usefully re-define the convolution of such signals:

$$f * h = g(n) = \sum_{n'=0}^{N-1} f(n')h(n - n')$$

It is easy to see that g is also periodic, with period N . (Strictly, this only requires that h is periodic, but we also require that f is periodic to ensure circular convolution commutes.)

In the program below, Circular convolution is implemented using C as there is no direct function in Matlab for the same



DESCRIPTION

CONV(A,B)

$C = \text{CONV}(A, B)$ convolves vectors A and B . The resulting vector is length $\text{LENGTH}(A) + \text{LENGTH}(B) - 1$. If A and B are vectors of polynomial coefficients, convolving them is equivalent to multiplying the two polynomials.

CODE

A) 1-Dimensional Linear Convolution

```
%x(n)--> Input Sequence% Given-->[1 1 1 1 1]
%h(n)--> Impulse Response% Given-->[1 2 3 4 5 6 7 8]

clc;
clear all;
close all;
x=[1 1 1 1 1];
h=[1 2 3 4 5 6 7 8];
y=conv(x,h);
figure(1);
subplot(3,1,1);
stem(x);
xlabel('n----->');
ylabel('Amplitude----->');
title('Input Sequence-----');
subplot(3,1,2);
stem(h);
xlabel('n----->');
ylabel('Amplitude->');
title('Impulse Response');
```

```
subplot(3,1,3);  
stem(y);  
xlabel('n----->');  
ylabel('Ampitude----->');  
title('Output Sequence');
```

B) 2-Dimensional Linear Convolution

```
clc  
  
clear all  
  
close all  
  
h=[1 2 3 4 5 6 7 8];  
x=[1 2; 3 4];  
y=conv2(x,h);  
disp(y);  
figure(2),subplot(3,1,1);  
plot(x);  
title('input sequence-->');  
subplot(3,1,2);  
plot(h);  
title('impulse response-->');  
subplot(3,1,3);  
plot(y);  
title('output sequence--->');
```

C) Circular Convolution

```
%x(n) input sequence% Given-->[1 2 4]  
%h(n) impulse response% Given-->[1 2]  
  
clc  
  
clear all  
  
close all  
  
%x=[1 2 4]  
x=input('Enter the x(n):=');  
%h=[1 2];  
h=input('Enter the h(n):=');  
  
N1=length(x);  
N2=length(h);  
N=max(N1,N2);  
  
y=conv(x,h);  
ly=length(y);  
  
for i=1:1:N  
if(N+i<=ly)  
r(i)=y(i)+y(N+i);
```

```
else
r(i)=y(i);
end
end
disp(r);
```

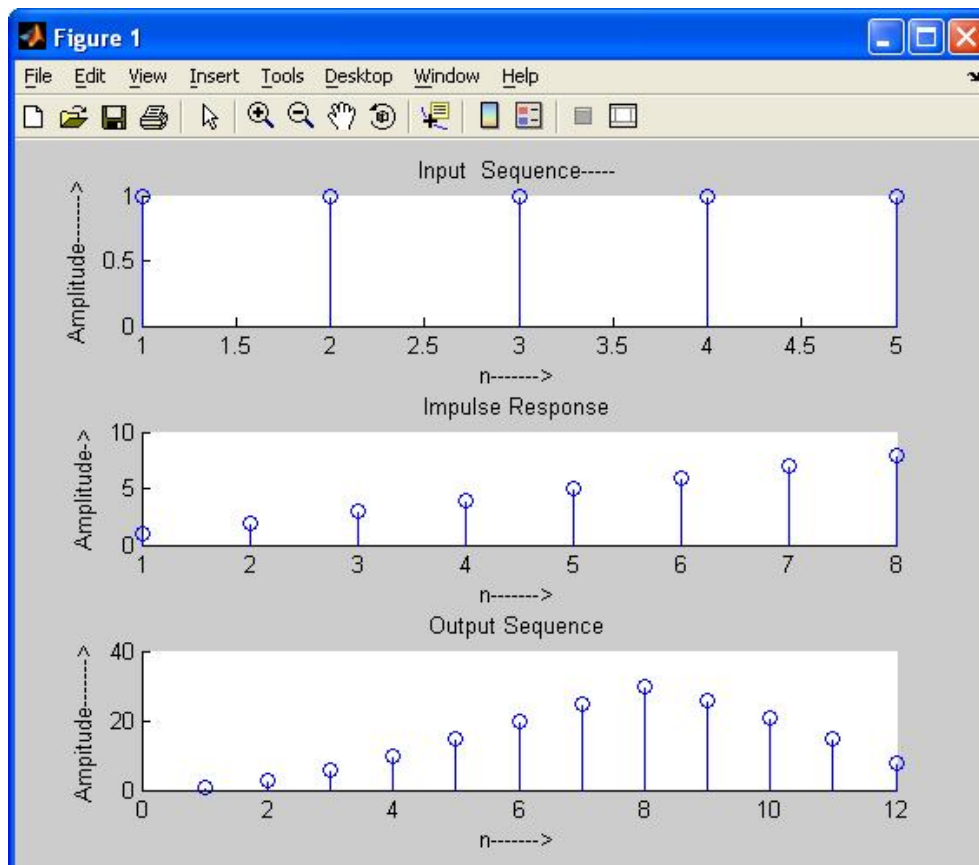
D) 2-D Cross and Auto Correlation

%Two-Dimensional Cross-Correlation And Auto-Correlation%

```
clc
clear all
close all
x=[ 1 2;3 4];
h=[5 6;7 8];
y=xcorr2(x,h);
%to compute cross correlation
disp('Cross correlation');
disp(y);
y1=xcorr2(x);
%to compute auto correlation
disp('Auto correlation');
disp(y1);
```

OUTPUT

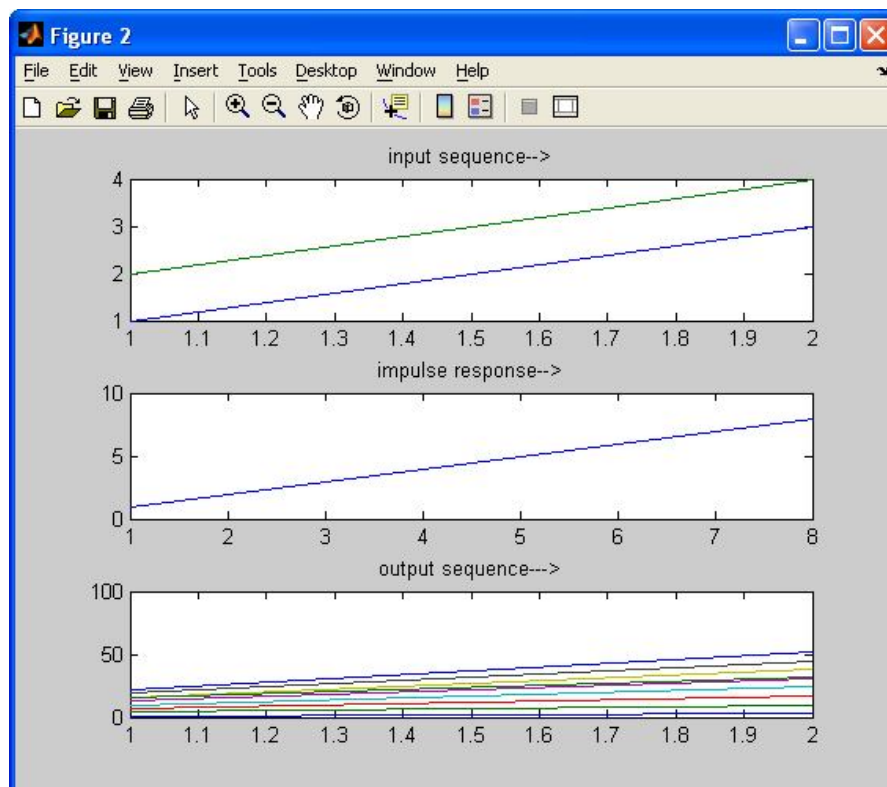
A) 1-Dimensional Linear Convolution



D) 2-Dimensional Linear Convolution

1 4 7 10 13 16 19 22 16

3 10 17 24 31 38 45 52 32



E) Circular Convolution

Enter the $x(n) := [1 \ 2 \ 1 \ 2]$

Enter the $h(n) := [3 \ 2 \ 1 \ 4]$

16 14 16 14

F) 2-D Cross and Auto Correlation

Cross Correlation

8 23 14

30 70 38

18 39 20

Auto Correlation

4 11 6

14 30 14

6 11 4

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STEPS TOWARDS GIRL CHILD PROSPERITY IN INDIA : SUKANYA SAMRIDDHI YOJANA

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ABSTRACT

Sukanya Samriddhi Yojna is a scheme started by the government of India for the girl child, this will come under part of Beti Bachao Beti Padhao. This scheme has been launched by our Prime Minister Narendra Modi. This scheme is for the girl child. India is a country where female child is seen as a burden by the family members. To overcome this our Prime Minister has started this yojna. The scheme has been started on 22nd January 2015. This scheme have been benefitted for more than 76 lakhs of people. The scheme supports the development of the country by making the girl educating. It will increase the literacy rate of our country. which helps in increase of the incomes and standard of living of people. This scheme leads to overall development of country, as the girls education also helps in decreasing the population. The objective of the paper is to study the concept and advantages of SUKANYA SAMRIDDHI SCHEME.

Keywords: Sukanya Samriddhi,

INTRODUCTION

Sukanya Samriddhi Yojana is a scheme started by our Indian Government. This scheme was launched by our honourable Prime Minister Narendra Modi on 22nd January 2015 in Panipat, Haryana. The scheme is for the girl child prosperity Beti Bachao Beti Padhao Program. The main intention of the scheme is girl children prosperity and their welfare. This scheme helps in increasing the literacy rate in India and also leads to economic development of our country. It also encourages the girl children to obtain employment after their education, which also increases the standard of living of the people as the total income of the family increases.

OBJECTIVE

The objective of the paper is to study the concept and advantages of Sukanya Samriddhi Yojana. The scheme is to ensure a bright future for the girl child in India. This scheme is to facilitate them proper education and tension less marriage expenses.

METHODOLOGY

This study is based on secondary data. Various journals, websites, newspapers, publications and articles are used as a source for collecting information.

FEATURES OF SUKANYA SAMRIDDHI YOJANA

1. who can open this Account:

This account can be opened by the parent or the guardian. But only for 2 female children.

2. Age criteria:

This can be opened for a girl child born anywhere in India below the age of 10 years of age.

3. Residential status:

This can be opened for a girl who is a resident of India.

4. where to open this account:

This account can be opened in any post offices or in any Commercial banks .

5. Documents required:

1. Birth certificate

2. Address and Identify proof of the parent or the guardian

6. How much to Deposits:

The minimum amount should be deposited is Rs. 250 and the maximum limits is Rs. 1.50 lakhs . there is no limit in the number of deposits in a month or a fiscal year.

7. Mode of Payment of deposits:

The cheque or the demand draft or the cash is accepted if demand draft is there it should be in the name of the Bank Manager for the bank and for the post office name of the concerned post master.

8. Penalty:

A penalty of 50rs will be applicable if the amount is not paid on time.

9. A rate of interest:

The rate of interest is 8.5%(2018). The interest is compounded on yearly basis.

10. Scheme Matures in 21 years or on Girl's Marriage, whichever is earlier :

The scheme gets matured on completion of 21 years from the date of opening of the account or as the girl child gets married, whichever is earlier.

11. Deposit for 14 years only :

You need to deposit a minimum of Rs. 1,000 and a maximum of Rs. 1,50,000 only for the first 14 years, after which you are not required to deposit any amount. Your account will keep earning the applicable interest rate for the remaining 7 years or till it gets matured on your daughter's marriage.

12. Tax Benefits

Any amount that would be deposited in Sukanya Samriddhi Account would be exempted from tax under 80C of IT Act, 1961, till a maximum of Rs 1.5 lakh. The interest and maturity amount on this account is also exempted from income tax. Also the amount matured at the time to account closure would be completely tax free.

13. Tenure of the deposit

The account is valid for 21 years from the date of opening, after which it will mature and the money will be paid to the girl child in whose name the account had been opened. If the account is not closed after maturity, the balance amount will continue to earn interest as specified for the scheme from time to time. The account will also automatically close if the girl child gets married before the completion of the tenure of 21 years.

14. Maximum period up to which deposits can be made

Deposits can be made up to 14 years from the date of opening of the account. After this period the account will only earn interest as per applicable rates.

15. Withdrawal

Withdrawing money before the completion of the maturity period of 21 years - can only be made by the girl child in whose name the account has been opened after she attains the age of 18 years. 50 per cent of the balance lying in the account can be withdrawn at the end of previous financial year for the purpose of higher education or marriage.

16. Premature Closure

The account can be prematurely closed only under two circumstances. In case of the unfortunate death of the girl child, the parent or guardian can claim for the accumulated amount along with the interest accrued on the account. The balance would be immediately handed over to the nominee of the account.

The second condition under which the account can be prematurely closed is when the competent authorities feel and confirm that it is not possible for the depositor to carry forward the account or the contributions made towards the account are causing undue hardships to the depositor. There is no third condition under which the account can be closed, as mentioned in PIB's release.

17. withdrawal rules pertaining to sukanya samriddhi yojana

- Withdrawal is granted for higher education purpose if woman child has attained 18 years or completed 10th standard for meeting actual fee or other charges required in the time of admission
- Documentary proof by way of a verified offer of entry in an educational institution or fee slip shall accompany the application for withdrawal.
- Withdrawal has a maximum cap of 50% of the balance in SSA in the end of previous financial year and can be made in either one lump sum or in 5 installments not exceeding one installment per year.

ADVANTAGES OF SUKANYA SAMRIDDHI ACCOUNT YOJANA

- Sukanya samriddhi yojana offers the highest rate of interest .
- This scheme will help the depositor for tax saving.
- This is one of the good initiative for the girl child born in India.
- The maturity amount will be paid to the girl child and to no one .
- After the maturity period if the account holder wishes to continue they can continue it and the same rate of interest will be applicable.
- The rate of interest will always be high as compared to all other schemes in India.

LIMITATIONS OF THE SUKANYA SAMRIDDHI YOJANA

- The deposit period is fixed only till 21 years of age.
- Maximum number of accounts is limited.
- Interest rate is always fluctuating.
- If the account is closed before the maturity stage there will be no benefit.

AUTHORISED BANKS TO OPEN SUKANYA SAMRIDDHI ACCOUNT

- State Bank of India (SBI)
- State Bank of Hyderabad (SBH)
- State Bank of Travancore (SBT)
- State Bank of Mysore (SBM)
- State Bank of Patiala (SBP)
- Syndicate Bank
- Vijaya Bank
- United Bank of India
- UCO Bank
- Punjab National Bank (PNB)
- Oriental Bank of Commerce (OBC)
- Indian Bank
- Punjab & Sind Bank (PSB)
- Indian Overseas Bank (IOB)
- ICICI Bank
- IDBI Bank
- Corporation Bank
- Dena Bank
- Axis Bank
- Allahabad Bank
- Andhra Bank
- Canara Bank
- Central Bank of India (CBI)
- Bank of Maharashtra (BOM)
- Bank of Baroda (BOB)

CONCLUSION

Sukanya Samriddhi Yojana is very good and beneficial scheme to every girl child and provides financial support for the welfare of a girl child. The interest varies from year to year, if the interest is stable for all the years then it will be good because the amount can be easily calculated. This scheme has helped our country to grow by in the ways of girl child learning and getting jobs. Therefore the Government of India has to take such initiatives further for the upliftment of poor, neglected sections of the society and others like unemployed etc. The government has to take necessary initiatives to meet the expectations of the people regarding such schemes.

INFORMATION TECHNOLOGY FUTURE IN ARTIFICIAL INTELLIGENCE

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ABSTRACT

We can expect that medium-level successes in AI would affect all kinds of people in their daily live So far, computerized communication networks, such as cell phones and the Internet, have had this kind of pervasive effect on society, but AI has not. AI has been at work behind the scenes—for example, in automatically approving or denying credit card transactions for every purchase made on the Web—but has not been visible to the average consumer. We can imagine that truly useful personal assistants for the office or the home would have a large positive impact on people’s lives, although they might cause some economic dislocation in the short term. Automated assistants for driving could prevent accidents, saving tens of thousands of lives per year. A technological capability at this level might also be applied to the development of autonomous weapons, which many view as undesirable. Some of the biggest societal problems we face today—such as the harnessing of genomic information for treating disease, the efficient management of energy resources, and the verification of treaties concerning nuclear weapons—are being addressed with the help of AI technologies. Finally, it seems likely that a large-scale success in AI—the creation of human-level intelligence and beyond—would change the lives of a majority of humankind. The very nature of our work and play would be altered, as would our view of intelligence, consciousness, and the future destiny of the human race. AI systems at this level of capability could threaten human autonomy, freedom, and even survival

INTRODUCTION

During the Second World War, noted British computer scientist Alan Turing worked to crack the ‘Enigma’ code which was used by German forces to send messages securely. Alan Turing and his team created the Bombe machine that was used to decipher Enigma’s messages. The Enigma and Bombe Machines laid the foundations for Machine Learning. According to Turing, a machine that could converse with humans without the humans knowing that it is a machine would win the “imitation game” and could be said to be “intelligent”.



Alan Turing in 1927.

In 1956, American computer scientist John McCarthy organized the Dartmouth Conference, at which the term ‘Artificial Intelligence’ was first adopted. Research centers popped up across the United States to explore the potential of AI. Researchers Allen Newell and Herbert Simon were instrumental in promoting AI as a field of computer science that could transform the world.

Getting Serious About AI Research

In 1951, an machine known as Ferranti Mark 1 successfully used an algorithm to master checkers. Subsequently, Newell and Simon developed General Problem Solver algorithm to solve mathematical problems. Also in the 50s John McCarthy, often known as the father of AI, developed the LISP programming language which became important in machine learning.

In the 1960s, researchers emphasized developing algorithms to solve mathematical problems and geometrical theorems. In the late 1960s, computer scientists worked on Machine Vision Learning and developing machine learning in robots. WABOT-1, the first ‘intelligent’ humanoid robot, was built in Japan in 1972.

AI Winters

However, despite this well-funded global effort over several decades, computer scientists found it incredibly difficult to create intelligence in machines. To be successful, AI applications (such as vision learning) required the processing of enormous amount of data. Computers were not well-developed enough to process such a large magnitude of data. Governments and corporations were losing faith in AI.

Therefore, from the mid 1970s to the mid 1990s, computer scientists dealt with an acute shortage of funding for AI research. These years became known as the ‘AI Winters’.

New Millennium, New Opportunities

In the late 1990s, American corporations once again became interested in AI. The Japanese government unveiled plans to develop a fifth generation computer to advance of machine learning. AI enthusiasts believed that soon computers would be able to carry on conversations, translate languages, interpret pictures, and reason like people. In 1997, IBM’s Deep Blue defeated became the first computer to beat a reigning world chess champion, Garry Kasparov.

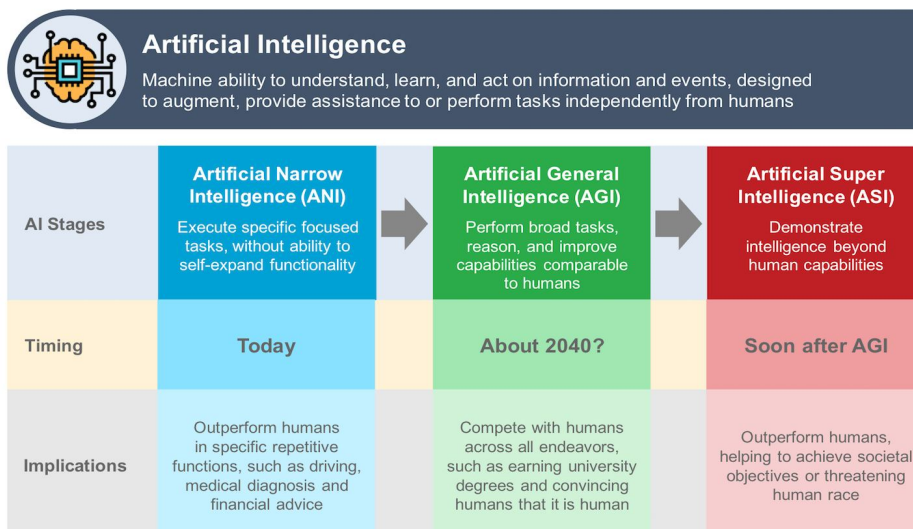


Garry Kasparov & IBM’s Deep Blue.

Some AI funding dried up when the dotcom bubble burst in the early 2000s. Yet machine learning continued its march, largely thanks to improvements in computer hardware. Corporations and governments successfully used machine learning methods in narrow domains.

Exponential gains in computer processing power and storage ability allowed companies to store vast, and crunch, vast quantities of data for the first time. In the past 15 years, Amazon, Google, Baidu, and others leveraged machine learning to their huge commercial advantage. Other than processing user data to understand consumer behavior, these companies have continued to work on computer vision, natural language processing, and a whole host of other AI applications. Machine learning is now embedded in many of the online services we use. As a result, today, the technology sector drives the American stock market.

Although we don’t know the exact future, it is quite evident that interacting with AI will soon become an everyday activity. These interactions will clearly help our society evolve, particularly in regards to automated transportation, handling dangerous duties, solving climate change, friendships and improving the care of our elders. Beyond these six impacts, there are even more ways that AI technology can influence our future, and this very fact has professionals across multiple industries extremely excited for the ever-burgeoning future of artificial intelligence.



Methods

But the underlying development is real. And the speed at which has been happening is staggering. Nick Bostrom, an academic at Oxford, is one of the most bullish people on Artificial Intelligence. In 2014 he was convinced that it would take computers another 10 years before they would beat humans at Go. Go is a famously complex board game and it is order of magnitude more complex than chess.

In March last year one of the world's strongest Go players (Lee Sedol) accepted to play against an Artificial Intelligence program called AlphaGo. As you might remember he was confident that he would win. As you might also remember AlphaGo didn't just do well, it mopped the floor with Lee Sedol. It defeated him decisively. And it didn't just defeat him, but it found moves and strategies that were completely new to the humans who had spent their lives mastering the game.

Algorithms are already outperforming humans on tasks that matter in a more immediate way. Artificial Intelligence for instance beats human pathologists at predicting patient survival times for certain kinds of cancerous tumors.

For the "operations" piece it is relatively easy to predict what AI will do to it. These functions naturally lend themselves to automation and there is no difference between processing the payroll for a grocery chain versus processing the payroll for a local school. Government will be able to benefit from the check your eligibility for benefits

- assessing your profile and job history
- identifying the best workshops or trainings that will help you find a job fast

Finally, I want to let you in on a secret. If you liked what you've just read message me and I'll introduce you to the algorithm that wrote all of this.

Thus, we see that AI systems are at the cusp of moving from primarily software-only systems to embedded robotic systems. The state of robotics today is roughly comparable to the state of personal computers in about 1980: at that time researchers and hobbyists could experiment with PCs, but it would take another decade before they became commonplace. Keeping track of the state of the world. This is one of the core capabilities required for an intelligent agent. It requires both perception and updating of internal representations.

Projecting, evaluating, and selecting future courses of action

1) The basic knowledge representation requirements here are the same as for keeping track of the world; the primary difficulty is coping with courses of action—such as having a conversation or a cup of tea—that consist eventually of thousands or millions of primitive steps for a real agent. It is only by imposing **hierarchical structure** on behavior that we humans cope at all.

2) Very powerful logical and statistical techniques have been developed that can cope with quite large problems, reaching or exceeding human capabilities in many tasks—as long as we are dealing with a predefined vocabulary of features and concepts. On the other hand, machine learning has made very little progress on the important problem of constructing new representations at levels of abstraction higher than the input vocabulary. In computer vision, for example, learning complex concepts such as Classroom and Cafeteria would be made unnecessarily difficult if the agent were forced to work from pixels as the input representation; instead, the agent needs to be able to form intermediate concepts.

3) **Utility as an expression of preferences:** In principle, basing rational decisions on the maximization of expected utility is completely general and avoids many of the problems of purely goal-based approaches, such as conflicting goals and uncertain attainment. As yet, however, there has been very little work on constructing *realistic* utility functions—imagine

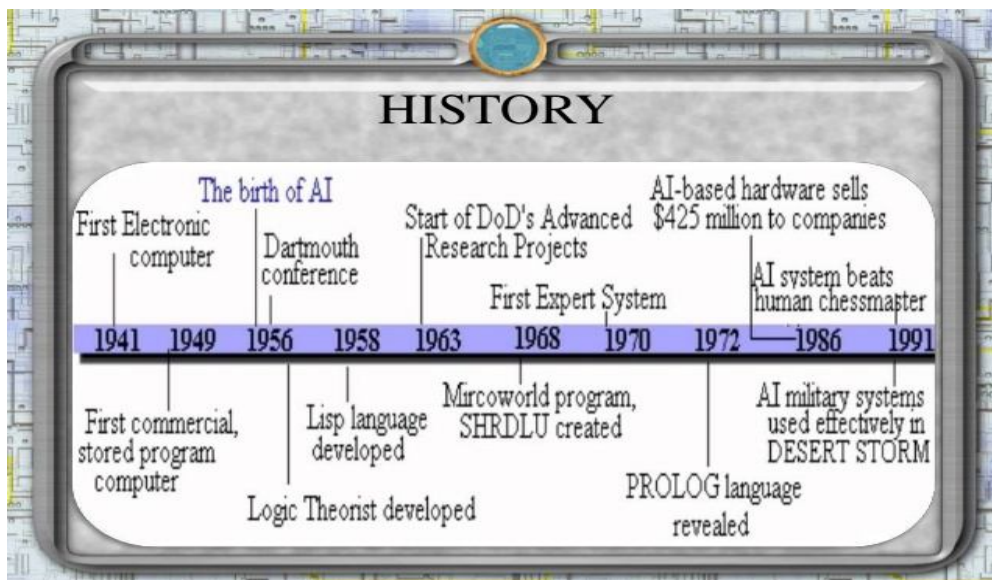
We can expect that medium-level successes in AI would affect all kinds of people in their daily live So far, computerized communication networks, such as cell phones and the Internet, have had this kind of pervasive effect on society, but AI has not. AI has been at work behind the scenes—for example, in automatically approving or denying credit card transactions for every purchase made on the Web—but has not been visible to the average consumer. We can imagine that truly useful personal assistants for the office or the home would have a large positive impact on people's lives, although they might cause some economic dislocation in the short term. Automated assistants for driving could prevent accidents, saving tens of thousands of lives per year. A technological capability at this level might also be applied to the development of autonomous weapons, which many view as undesirable. Some of the biggest societal problems we face today—such as the harnessing

of genomic information for treating disease, the efficient management of energy resources, and the verification of treaties concerning nuclear weapons—are being addressed with the help of AI technologies.

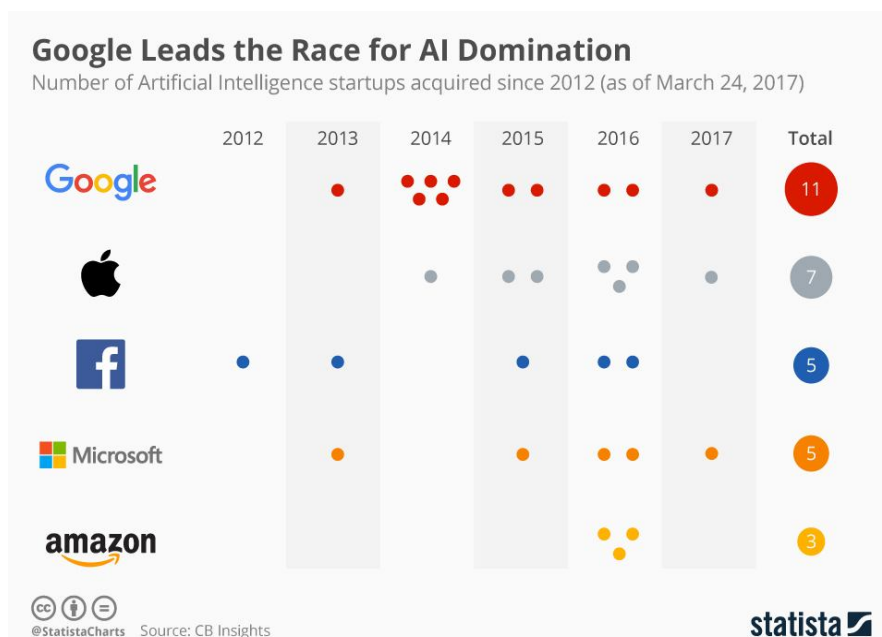
Fast forward to now, and technology has reached a point where AI appears to be within reach, driven by key advancements:

1. **Big Data:** As devices have become connected and usage has grown, so has the data created.
2. **Computing Power:** Ongoing improvements in GPU computer capacity, ever decreasing costs for that power and the advent of cloud-based services, have begun to democratize AI, in turn boosting opportunities for mass research and development.
3. **Deep Learning:** A direct product of points one and two. Deep learning is a subset of machine learning, both of which are integral to AI progression. Machine Learning focuses on giving computers the ability to learn without being explicitly programmed. Deep learning expands on that, instead utilizing our ever-expanding understanding of the human brain to create artificial neural networks that mimic the activity of neurons to better abstract information from large datasets.

Results



The above diagram shows how AI got developed in the different generations



The above diagram shows how the different leading companies use AI technology in their working. The diagram shows how use of AI increases in their companies from 2012 to 2017.

Discussion

Artificial Intelligence is designing machines that have the ability to think. It is the intelligence of machines. Now a days we AI enters in the field of Gaming , Natural Language Processing, Vision System, Speech Recognition, Handwriting Recognition, Intelligent Robots.

But parallel it is having some disadvantages also

High cost, No replicating humans, No original creativity and unemployment etc.

CONCLUSIONS

“**The sky is the limit**” – says Oren Etzioni, CEO of Allen Institute of Artificial Intelligence. Everything that human beings have contemplated starting from space exploration to finding a solution to the deadly Ebola, could have been more documented and tractable with the impact of artificial intelligence. AI will document the footprints of human developments.

AI and robotics will not only improve the way we think or live our lives but also explores new horizons, whether space or the ocean. As the age old saying goes, the need is the mother of all innovations, so it is with AI also. Humans are getting increasingly better in defining their wants and quickly transforming this want into reality. Things will happen so fast that we will not notice the minor changes and will be easily adaptable to the change it brings to us.

ACKNOWLEDGEMENTS

AI is like two edged sword at one end they can solve problems at one end they can solve problems intelligently at another end they pose problems themselves. AI is something that has been achieved only to a very limited degree and it remain a very difficult problem and long term goal of computer science. Since we are having some limitations but still there is a bright future of AI.

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TECHNOLOGY TRENDS AFFECTING THE BANKING INDUSTRY

Namrata DubeAssistant Professor, Chandrabhan Sharma College of Arts, Science & Commerce

ABSTRACT

Technology advancement in the financial industry are changing the way consumers bank. As consumers, corporations, and governments continue to demand more efficiency, the payment system will continue to become more complex. These advances occur quickly, so it's important that consumers, including students, keep up with what's available. The banking sector plays a vital role in the development of one country's economy. The growth of banking sector depends upon the services provided by them to the customers in various aspects. Recent trends in banking sector fulfil with new technology which makes life very simple to customers. Credit card, ATM card and Smart card are very useful in money transaction. Banks no longer restricted themselves to traditional banking activities, but explored newer avenues to increase business and capture new market. These trends save the time of customer and also banks. The research paper focuses on how the technology has transformed the face of banking in India and what are the challenges faced by the banking sectors.

Keywords: Transform, technology, smart card, banking sector.

• INTRODUCTION

The Internet, like the steam engine, is a technological breakthrough that changed the world. India's rapid rate of economic growth over the past decade has been one of the most significant developments in the global economy. Banking sector has a very vital role in this process. From inception till today this sector has gone through drastic changes with changing demographics and priorities of country people. The challenges of changing regulations and rapid growth of technology had impacted this sector and changed the way of its operations in various manners and paved way to take feasible actions for this purpose. In the past, customers rarely notice the computer system or new technology that made the information system operate. Today E-banking, smart card, credit Card. ATM is very important in banking sector. Today website electronic mails and electronic bill presentment and payment system are important way for the banks to reach their customers.

New trends in banking sector is changing the industry and is having major effects on banking relationship. Recent trends in banking sector fulfil with new technology which makes life very simple to customers. Credit card, ATM card n Smart card are very useful in money transaction. These trends save the time of customer and also banks.

• OBJECTIVES OF THE STUDY

- To analysis the changes in banking sector due to technological advancement.
- To know about the impact of new technology of banking system on society.
- To identify the challenges in the banking sector because of technological advancement.
- To study the new trends in banking system and its products.

• RESEARCH METHODOLOGY

The research is based on secondary data. Secondary data was collected from various journals, articles, working papers and web sites etc.

• RECENT TRENDS**Credit Card**

A credit card is a small plastic card with a magnetic strip issued by a bank which allows people to buy items without cash. Cards are certainly important for consumers and retailers because using cheques or holding cash often more time-consuming compare to retail oriented electronic payment technology. All the credit card comes with a credit limit.

Debit Card

A debit card(also known as a bank card, plastic card or cheque card) is a plastic payment card that can be used instead of cash when making purchases. It is similar to a credit card, but unlike a credit card, the money is immediately transferred directly from the cardholder's bank account when performing a transaction. With a credit card, you're borrowing money to be repaid later. A debit card looks just like a regular ATM card, and you can use it at ATMs. The difference is that a debit card has a Visa® or Mastercard® logo on its face. That means you can

use a debit card wherever Visa® or Mastercard® debit cards are accepted. For example- department stores, restaurants, or online shopping.

Automated teller machine (ATM)

An automated teller machine (ATM) is an electronic telecommunications device that enables customers to perform financial transactions, such as cash withdrawals, deposits, transfer funds, or obtaining account information, at any time and without the need for direct interaction with bank staff. An ATM card is a PIN-based card. That means in addition to using it at ATMs, you may also be able to use it to make purchases (by entering your Personal Identification Number) if the merchant is using one of the same electronic ATM networks that's listed on the back of your card. ATM and debit cards allow you to use ATMs, a safe and convenient way to manage your money. There are millions of ATMs worldwide and you can use many ATMs 24 hours a day, 7 days a week.

ATM and debit cards are also a convenient way to make purchases without carrying cash that help you keep better track of the money you spend.

E-banking & Internet

E-banking is a product designed for the purposes of online banking that enables you to have easy and safe access to your bank account. E-banking is a safe, fast, easy and efficient electronic service that enables you access to bank account and to carry out online banking services, 24 hours a day, and 7 days a week. With this service you save your time by carrying out banking transactions at any place and at any time, from your home or office, all you need is internet access. In simple words, e-banking implies provision of banking products and services through electronic delivery channels. Electronic banking has been around for quite some time in the form of automatic teller machines (ATMs) and telephone transactions. In more recent times, it has been transformed by the internet a new delivery channel that has facilitated banking transactions for both customers and banks. For banks, it is a much more efficient and cost- saving channel

Smart Card

A smart card, chip card, or integrated circuit card (ICC) is a physical electronic authorization device, used to control access to a resource. It is typically a plastic credit card sized card with an embedded integrated circuit. Many smart cards include a pattern of metal contacts to electrically connect to the internal chip. Others are contactless, and some are both. Smart cards can provide personal identification, authentication, data storage, and application processing. Applications include identification, financial, mobile phones (SIM), public transit, computer security, schools, and healthcare. Smart cards may provide strong security authentication for single sign-on (SSO) within organizations. Several nations have deployed smart cards throughout their populations.

The important thing about Smart Cards is that they are everyday objects that people can carry in their pockets, yet they have the capacity to retain and protect critical information stored in electronic form.

Phone Banking

Customers can now dial up the bank's designed telephone number and he by dialing his ID number will be able to get connectivity to bank has designated computer. The software provided in the machine interactive with the computer asking him to dial the code number of service required by him and suitably answers him. By using Automatic voice recorder (AVR) for simple queries and transactions and manned phone terminals for complicated queries and transactions, the customer can actually do entire non-cash relating banking on telephone anywhere, anytime .

Tele Banking

Tele banking is another innovation, which provided the facility of 24-hour banking to the customer. Telebanking is based on the voice processing facility available on bank computers. The caller usually a customer calls the bank anytime and can enquire balance in his account or other transaction history. In this system, the computers at bank are connected to a telephone link with the help of a modem. Voice processing facility provided in the software. This software identifies the voice of caller and provides him suitable reply. Some banks also use telephonic answering machine but this is limited to some brief functions. This is only telephone answering system and now Tele-banking. Tele banking is becoming popular since queries at ATM's are now becoming too long.

Mobile banking

Mobile banking is a term used for performing balance checks, account transactions, payments, credit applications and other banking transactions through a mobile device such as a mobile phone or Personal Digital Assistant (PDA). Mobile Banking involves using mobile devices gain to access financial services.

The electronic clearing system (ECS)

The electronic clearing system (ECS) also known as electronic fund transfer or better still wire transfer is a feature of electronic banking where by the transfer of funds from one account to another rather than by cash is done with the use of electronic devices like computers and scanners. It can be used by institutions for making payments such as distribution of dividend interest, salary, and pension, among others.

Biometric Technology

Biometric Technology enables the delivery of information safely at a faster rate and allows convenient access of confidential information. It prevents unnecessary frauds and allows easy banking transactions.

Remote Deposit Capture (RDC)

RDC is the fastest growing trend in the banking industry. It allows the deposition of money to a bank from any location via an internet connection. Its process includes scanning of cheque images to a bank, thereby making cheque processing easier and safer.

Image Banking

Image Banking helps the banking system to replace manual handling and risk control with the introduction of electronic files and documents. With Image based transaction, the overall operational efficiency of banking system has improved.

Digital Wallet

A digital wallet holds the details of a user regarding payment and shipping information to make electronic commerce transaction easier.

• CHALLENGES**Emergent threats from non-financial institutions**

With companies like Amazon toying with the idea of capitalizing on it's already massive consumer base to create banking opportunities or Facebook allowing users to transfer money directly to other people's bank accounts, financial institutions are scrambling to compete. These non-financial institutions are typically not held to the same strict rules and regulations as financial institutions. Because of this, they have more freedom to use their already large customer bases and multi-generations of technology and security to more easily contend with institutions that are limited by federal regulation.

Brick and Mortar, Virtual or Both?

Different generations want to handle their financial wellbeing differently. Some want to be able to meet with a person face-to-face while some want to do everything virtually. And then there are some that like to make simple transactions on their phone, but would still like to meet with a real-life person for things like obtaining mortgage loans or discussing investment opportunities. As a response to this challenge, financial institutions are changing the way that they do business. Brick and mortar locations are still important to the success of the bank, but financial services institutions must also modernize and create digital workplaces that resonate with all the variations of the customer. Having a complete, omni-channel strategy is an absolute necessity. The challenge is creating a great one.

The need for increased and more proactive security:

Having perfect security is and always has been a requirement. However, with the growth of the global economy and global marketplace to include virtual payments and omni-channel access and transacting, security risks are at an all-time high. The average breach can cost a financial institution about \$225 per compromised record. Financial institutions need to be out in front, going after the fraudsters and minimizing risks. This is done through both internal development, and through industry partnerships with market leaders.

Upgrading of systems

A challenge across vertical segments includes technology that is generations old. In certain areas of the business, these outdated assets need to be updated, upgraded or completely replaced in order to meet market challenges, customer needs, and emergent competitors. Again, back to the changing of a tire on a moving car.

Employee Training

Employee Training is another challenge. Banks are restricting their administrative folio by converting labor into machine power i.e. banks are decreasing manual powers and getting maximum work done through machine power. Skilled and specialized manpower is to be utilized and result oriented targeted staff are to be appointed.

• MEASURES TO MEET THE CHALLENGES

At corporate level to meet the challenges, various initiatives have been taken by various banks and implementation is in process besides up gradation of data center facilities:

- Single Window System
- Revised Account opening form for capturing complete customer/Account data as per CBS requirement
- all centre for customers
- Customer Relationship Management (CRM) Application
- Data Warehousing
- Centralization of Functions
- Inward clearing data uploading and processing
- Cheque book issues
- MIS-On-Line Monitoring / Generation of statement by controlling offices

● CONCLUSION

In the days to come, banks are expected to play a very useful role in the economic development and the emerging market will provide business opportunities to harness. As banking in India will become more and more knowledge supported, capital will emerge as the finest assets of the banking system. Ultimately banking is people and not just figures. To conclude it all, the banking sector in India is progressing with the increased growth in customer base, due to the newly improved and innovative facilities offered by banks. The economic growth of the country is an indicator for the growth of the banking sector. The Indian economy is projected to grow at a rate of 5-6 per cent and the country's banking industry is expected to reflect this growth. The onus for this lies in the capabilities of the Reserve Bank of India as an able central regulatory authority, whose policies have shielded Indian banks from excessive leveraging and making high risk investments. By the government support and a careful re-evaluation of existing business strategies can set the stage for Indian banks to become bigger and stronger, thereby setting the stage for expansions into a global consumer base.

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TO STUDY THE ROLE OF INTERNET OF THINGS IN SMART CLASSROOM

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ABSTRACT

We dwell in an era where millions of digital devices are interconnected. All the web-enabled devices that collect, send and execute data using embedded sensors, processors and communication hardware, and this concept is called Internet of Things. In this paper, the focus is on the application of Internet of Things in the Smart Classrooms. Smart class system is making use of imagination of the student to make them understand the subject in all its pros and cons in such a way that it remains in their memory for long time. Student's performance increased in related subject; Students enjoy learning; Students rate of absenteeism decreased; their memory, understanding and application skills' increased. Their participation also increased. With smart classroom method, students understand difficult topics in an interesting manner through audio-visual aids. These audio- visual aids display the data and the mathematical relation of the topics for interpretation, especially of multi-dimensional cases. With these smart classroom classes, Notes/Pages can automatically be saved and can be printed, emailed or even pasted into a website and It enables tutors to use multimedia resources and the internet with a whole class. The aim of the paper to develop an application based on IoT that will be used by students and teachers is help to determine how concepts are being understood by the class. The intent is students will come to a lecture, open the class handout in digital form on their digital devices like iPads/tablets/laptops and follow along with the lecturer. Finally, the main requirements that such a system should be tested in real -time environment as the experimental design.

Keywords: Communication, Multimedia, Smart class, Technology, Internet of Things

INTRODUCTION

The Internet of Things is a collection of different components that connect software, systems, and people via internet technology. Communication network is enabled by IoT wireless technology, the communication network is act as a gateway between an IoT device and a software platform.^[1]

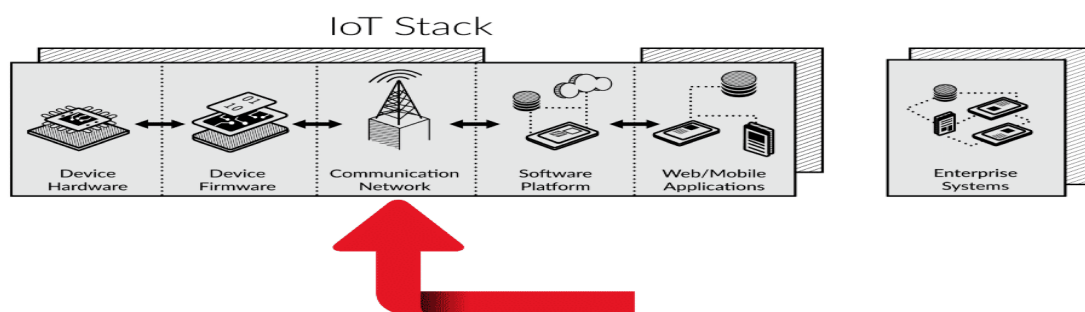


Figure-IoT stack

The dramatically changes in the internet has been evolved over the years. The network seamlessly connects all kinds of digital devices, smart objects and the concept where all of them are interconnected and collaborating, is called "Internet of Things" (IoT). According to the ITU - International Telecommunication Union, IoT will enable connectivity for anyone and anything from anyplace at any time^[2]. The new applications based on the IoT technology will likely improve the quality of our lives, but will also bring many new challenges related to privacy, social interaction and technology. In order to achieve an end-to-end communication between the "things", it is necessary to integrate several technologies and communication solutions like informatics, electronics, telecommunications, as well as social science. The pervasive presence of the smart "things" such as sensors, actuators, RFID tags, mobile phones, etc. , through which unique addressing schemes are able to interact with their neighboring "smart" components to reach common goals [3]. In this paper, we present the potential of IoT to build a smart classroom, i.e. a classroom that can provide the quality of a lecture, that will enable to achieve the maximum impact as well as to modify the subsequent lectures based on the "lessons learned" from the past cases.

PROBLEM STATEMENT

The traditional approach of teaching and providing note has lost its effectiveness as the modern day around in education grows. To grow academically it must be considered that different modalities of teaching and learning

are necessary to implement deeper levels of growth and conceptual development. Since every student is not have interest in all subject. However, it is the responsibility of the education system to employ a variety of opportunities for the students to gain interests, organizing academic growth and progression throughout childhood and adolescence.

Learning is not how much one can learn quickly. It's rather the knowledge that remains after one forgets what he/she learned in lecturer. Thus we emphasize on learning the concepts with the help visuals and activities. To keep that view the smart classroom learning was introduced.

METHODOLOGY

What is Internet of Things (IoT)

Kevin Ashton, in a presentation to Proctor & Gamble in 1999, coined the term "Internet of Things ". Almost every area, device, sensor, software are connected to each other. The ability to access these devices through a smartphone or computer is called IoT. These devices are accessed remotely. IoT is basically a platform where we connect everyday things embedded with electronics, software, and sensors to the internet enabling them to collect and exchange data. The 'Thing' in IoT can refer to any device that might comprise any kind of built-in-sensors with the ability to collect and transfer data over a network or internet without manual intervention. [5]

How IoT Works?

The entire process starts with the devices such as smartphones, digital watches, electronic appliances which securely communicate with an internet of things platform. IoT collects and combines data from multiple devices and platforms and applies analytics to share the most valuable data with applications to address industry-specific needs.

Let's start with a simple real-life example- a car after taking a long road trip, Rajesh notice his check engine light and finds that it is needs to look by a mechanic, but there is something minor or serious that doesn't know. As it is find out, the sensor that triggered the check engine light monitors the pressure in the inner break line. The many sensors present in the car which are communicating with each other constantly. [5]

A component through the diagnostic bus gathers the data from all these sensors and then passes it to the gateway in the car. The gateway is used to collect and sorts the data from different sensors so that most relevant diagnostic information will transmit to the manufactures platform.

IoT MQTT

IoT MQTT is a messaging protocol which is design for lightweight gadget-to-machine communiqué. MQTT advanced in 1999 by IBM to permit a *Supervisory Control and Records Acquisition (SCADA)* gadget for a far-flung pipeline challenge, MQTT has advanced into an open fashionable maintained by using the OASIS requirements frame. [5]

IoT CoAP

IoT CoAP, is a new fashion evolved by IETF Constrained Resource Environments (core) institution this regularly define as a lightweight analog to HTTP. CoAP Protocol is used by MQTT for the smaller packets and decrease the overhead of UDP. CoAP requests message sample and employs a consumer-server model in which consumer devices send data requests immediately to server devices, which then respond. [5]

Concept of smart classroom

Smart Classroom research and development project aims at combining entrepreneurial pedagogy, collaborative teaching and the latest technological teaching tools to create a modern and effective education service environment in higher education setting. There are three main themes in the SMART Classroom concept: Smart Pedagogy, Smart Learning Space and Smart Teaching Solutions. The Smart classroom learning provides learners to walks of life with a host of Smart Thinking Tools that motivate higher levels of understanding. Through the process learning learners activate and build background knowledge, transform their learning into a product that shows what they know, and reflect on their learning. Structured talk and assessment for learning are carefully woven into the process to build an idea for learning and to advance the thinking of all learners. Smart Learning find out the goals of inclusivity and differentiation. The overall idea of smart classroom has not only made education interesting but a chance to students to enhance their performance. The Smart classroom learning approach provides learners of all ages and walks of life with a nine-step framework and a host of Smart Thinking Tools that motivate higher levels of understanding. Through this process learners activate, build background knowledge and transform their learning into a product that shows what they know, and reflect on their learning. Structured talk and assessment are carefully woven into the process to build a thoughtful context for learning and to advance the thinking of all learners. A Smart Classroom duplicates all the elements found in

a real classroom. The main objective of the smart classroom project is to find and create a best practice standard for implementing modern, academic curricula in an international, multidisciplinary university setting.

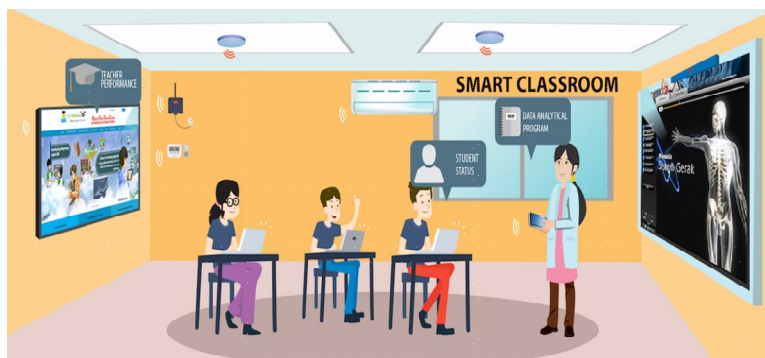


Fig: Smart Class Room [8]

Limitation of IoT

Installation cost

Although the prices of IoT sensors and devices are going down, the cost of installing them is still very much expensive and complex. Many find this process to be frustrating that many users decide to just cancel their IoT projects.

Inconvenience

Many IoT devices are marketed as user-friendly products. However, these devices often require high maintenance. Their battery needs to be recharged every now and then. They can also lose their connectivity from time to time. In some cases, they are simply not well designed and cause inconvenience to users.

CONCLUSION

Nowadays, IoT is a smart network that conquering the entire world by connecting various objects around us and exchange information and communicate through intelligent objects. IoT activate the education system to be more effective and relevant. In the future almost every educational institution will use IoT based applications to improve the learning process, and distance education. A smart school uses IoT to facilities operating smoothly promotes a higher level of personalized learning. The smart digital devices used in a campus utilize WiFi network for receiving instructions and sending data. IoT based technologies for colleges and schools provide helps to keep track of major resources, create smarter lesson plans, design secure campuses, enhance information access, and much more. With its set of advanced tools, IoT can be regarded as a new method of classroom management. The new digital world will create virtual schools that rely on Internet objects to encourage off campus learning and expand participation in modern learning.

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HUMAN-COMPUTER INTERACTION

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ABSTRACT

The advancement in the development of computer technology has led to the idea of human computer interaction. Human Computer Interaction (HCI) or Human Factors studies in MIS are concerned with the ways humans interact with information, technologies, and tasks, especially in business, managerial, organizational, and cultural contexts. This article describes the existence and importance of HCI research in the MIS discipline, its historical development, some of its characteristics, publication opportunities, and future research directions. It is hoped that HCI studies can provide the evolution of the human centered technology development that enhances our work/job, our various needs, our organizations, our societies, and us. This paper focuses on the mental model in Human Computer Interaction. Preliminary analysis highlights HCI design aspects, data management, user interaction, psychology and cognition and more recent trends in HCI in the workplace, sensors and wearable's.

Keyword: Academic Supportive Devices, Digital Devices, Natural Language Processing, Non-cognitive properties, Human Computer Interaction

INTRODUCTION

The Human computer interaction is the practice and study of usability. It is about the relationship between a human and a computer, their mutual understandings and by creating a software which would ease the work of a human and people would love to use, and would be able to use it. As the name suggests, it comprises of three parts namely the user, the computer and their interaction. It involves the sketching of low and high fidelity, i.e., the degree of exactness a thing is being reproduced. The initial step to an intelligent HCI is having the abilities to respond and sense appropriately according to user's affective feedback and detect, interpret the affective states shown by the user instinctually. This paper also focuses on various types of HCI design approaches.

HCI can be used in all disciplines wherever there is a possibility of computer installation. Some of the areas where HCI can be implemented with distinctive importance are mentioned below –

- **Computer Science** – For application design and engineering.
- **Psychology** – For application of theories and analytical purpose.
- **Sociology** – For interaction between technology and organization.

HCI is cross-disciplinary in its conduct and multi-disciplinary in its roots (Hartson 1998). Hence, the vast body of literature that accumulated the last four decades originates from various disciplines and is disseminated in a wide range of outlets. Publications that include myriad research paradigms and methods, frameworks and models, interface design techniques and devices, technologies and digital artefacts, multi-modal interactions, tool support for model-based user interface specification, and a host of emerging ubiquitous, handheld and context-aware and virtual interactions.

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OBJECTIVES OF THE STUDY

- Demonstrate an understanding of guidelines, principles, and theories influencing human Computer interaction.
- Recognize how a computer system may be modified to include human diversity.
- Select an effective style for a specific application.
- Design mock ups and carry out user and expert evaluation of interfaces.

- Carry out the steps of experimental design, usability and experimental testing, and evaluation of human computer interaction systems.
- Use the information sources available, and be aware of the methodologies and technologies supporting advances in HCI.

RESEARCH METHOD

This research aims to enhance the readers' understanding of the research published in the HCI field. To do so, initially we proceeded to a literature investigation and analysis by exploring Elsevier's Scopus database and retrieved a dataset with research publications and citation data for a period from 1969 to early 2017. Previous research has shown that Scopus can be used as a sole data source for citation-based research and evaluation in HCI (Meho and Rogers 2008). In our case in order to ensure the credibility of selected documents, the search was restricted to journal and conference publications available in English language only. For the research the keywords "Human Computer Interaction" was utilized, focusing on the "title" and "keywords" fields of the publication. This process revealed 1,843 publications, spanning in a wide range of dissemination outlets and research interests. To this data, we imposed a number of diverse methodologies outlining techniques for human-computer interaction design have emerged since the rise of the field in the 1980s. Most design methodologies stem from a model for how users, designers, and technical systems interact. Early methodologies, for example, treated users' cognitive processes as predictable and quantifiable and encouraged design practitioners to look to cognitive science results in areas such as memory and attention when designing user interfaces. Modern models tend to focus on a constant feedback and conversation between users, designers, and engineers and push for technical systems to be wrapped around the types of experiences users want to have, rather than wrapping user experience around a completed system.

Activity theory: used in HCI to define and study the context in which human interactions with computers take place. Activity theory provides a framework to reason about actions in these contexts, analytical tools with the format of checklists of items that researchers should consider, and informs design of interactions from an activity-centric perspective.

User-centered design: user-centered design (UCD) is a modern, widely practiced design philosophy rooted in the idea that users must take center-stage in the design of any computer system. Users, designers and technical practitioners work together to articulate the needs and limitations of the user and create a system that addresses these elements. Often, user-centered design projects are informed by ethnographic studies of the environments in which users will be interacting with the system. This practice is similar to participatory design, which emphasizes the possibility for end-users to contribute actively through shared design sessions and workshops.

Principles of user interface design: these principles may be considered at any time during the design of a user interface in any order: tolerance, simplicity, visibility, affordance, consistency, structure and feedback

Value sensitive design (VSD): a method for building technology that account for the values of the people who use the technology directly, as well as those who the technology affects, either directly or indirectly. VSD uses an iterative design process that involves three types of investigations: conceptual, empirical and technical. Conceptual investigations aim at understanding and articulating the various stakeholders of the technology, as well as their values and any values conflicts that might arise for these stakeholders through the use of the technology. Empirical investigations are qualitative or quantitative design research studies used to inform the designers' understanding of the users' values, needs, and practices. Technical investigations can involve either analysis of how people use related technologies, or the design of systems to support values identified in the conceptual and empirical investigations.

SIGNIFICANCE OF THE STUDY

Design Principles

A number of design principles have been promoted. The best known are concerned with how to determine what users should see and do when carrying out their task using an interactive product. Here we briefly describe the most common ones

- Visibility
- Affordance
- Constraints
- Mapping

- Consistency
- Feedback

VISIBILITY

The more visible functions are, the more likely users will be able to know what to do next. In contrast, when functions are "out of sight," it makes them more difficult to find and know how to use. Norman describes the controls of a car to emphasize this point. The controls for different operations are clearly visible (e.g., indicator, headlights, horn, and hazard warning lights), indicating what can be done. The relationship between the way the controls have been positioned in the car and what they do makes it easy for the driver to find the appropriate control for the task at hand. For example, one problem that I often encounter, in word processing software I often needed to set the properties of a word document. For this logically option of properties should be in the File menu, and I have often seen it there. But once, I opened the file menu I could not find it there, I was confused. In confusion, I looked through all the menus but in vain. At last, surprisingly I was again looking at the file menu when I noticed the arrow at the bottom of the menu, when I clicked on that I was able to see that option again on the menu.

AFFORDANCE

Affordance is a term used to refer to an attribute of an object that allows people to know how to use it. For example, a mouse button invites pushing by the way it is physically constrained in its plastic shell. At a very simple level, to afford means "to give a clue." When the affordances of a physical object are perceptually obvious it is easy to know how to interact with it. For example, a door handle affords pulling, a cup handle affords grasping, and a mouse button affords pushing. Norman introduced this concept in the late 80s in his discussion of the design of everyday objects. Since then, it has been much popularized, being what can be done to them.

For example, graphical elements like button, icon, links, and scroll bars are talked about with respect to how to make it appear obvious how they should be used: icons should be designed to afford clicking, scroll bars to afford moving up and down, buttons to afford pushing.

There are two kind of affordance

- Perceived
- Real

Perceived

User interfaces that are screen-based are virtual and do not make sense to try to design for real affordances at the interface---except when designing physical devices, like control consoles, where affordance like pulling and pressing are helpful in guiding the user to know what to do. Alternatively screen based interfaces are better conceptualized as perceived affordances, which are essentially learned conventions

Real

Physical objects are said to have real affordances, like grasping, that are perceptually obvious and do not have to be learned.

Constraints

The design concept of constraining refers to determining ways of restricting the kind of user interaction that can take place at a given moment. There are various ways this can be achieved. A common design practice in graphical user interfaces is to deactivate certain menu options by shading them, thereby restricting the user to only actions permissible at that stage of the activity.

Physical constraints

Physical constraints refer to the way physical objects restrict the movement of things. For example, the way an external disk can be placed into a disk drive is physically constrained by its shape and size, so that it can be inserted in only one way. Likewise, keys on a pad can usually be pressed in only one way.

Logical constraints

Logical constraints rely on people's understanding of the way the world works. They rely on people's common-sense reasoning about actions and their consequences. Picking up a physical marble and placing it in another location on the phone would be expected by most people to trigger something else to happen. Making actions and their effects obvious enables people to logically deduce what further actions are required. Disabling menu an option when not appropriate for the task in hand provides logical constraining. It allows users to reason why (or why not) they have been designed this way and what options are available.

Culture constraints

Culture constraints rely on learned conventions, like the use of red for warning, the use of certain kinds of signals for danger, and the use of the smiley face to represent happy emotions. Most cultural constraints are arbitrary in the sense that their relationship with what is being represented is abstract, and could have equally evolved to be represented in another form (e.g., the use of yellow instead of red for warning). Accordingly, they have to be learned. Once learned and accepted by a cultural group, they become universally accepted conventions. Two universally accepted interface conventions are the use of windowing for displaying information and the use icons on the desktop to represent operations and documents

Mapping

This refers to the relationship between controls and their effects in the world. Nearly all artifacts need some kind of mapping between controls and effects, whether it is a flashlight, car, power plant, or cockpit. An example of a good mapping between controls and effects is the up and down arrows used to represent the up and down movement of the cursor, respectively, on a computer keyboard. The mapping of the relative position of controls and their effect is also important. Consider the various musical playing devices. How are the controls of playing rewinding, and fast forward mapped onto the desired effects? They usually follow a common convention of providing a sequence of buttons, with the play button in the middle, the rewind button on the left and the fast-forward on the right. This configuration maps directly onto the directionality of the actions

Consistency

This refers to designing interfaces to have similar operations and use similar elements for achieving similar tasks. In particular, a consistent interface is one that follows rules, such as using the same operation to select all objects.

For example, a consistent operation is using the same input action to highlight any graphical object at the interfaces, such as always clicking the left mouse button. Inconsistent interfaces, on the other hand, allow exceptions to a rule. An example of this is where certain graphical objects (e.g., email messages presented in a table) can be highlighted using the right mouse button, while all other operations are highlighted using the left button. A problem with this kind of inconsistency is that is quite arbitrary, making it difficult for users to remember and making the users more prone to mistakes.

Feedback

Related to the concept of visibility is feedback. This is best illustrated by an analogy to what everyday life would be like without it. Imagine trying to play a guitar, slice bread using knife, or write a pen if none of the actions produced any effect for several seconds. There would be an unbearable delay before the music was produced, the bread was cut, or the words appeared on the paper, making it almost impossible for the person to continue with the next strum, saw, or stroke. Feedback is about sending back information about what action has been done and what has been accomplished, allowing the person to continue with the activity. Various kinds of feedback are available for interaction design--audio, tactile, verbal, visual, and combinations of these. Deciding which combinations are appropriate for a different kind of activities and interactivities is central. Using feedback in the right way can also provide the necessary visibility for user interaction.

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IMPACT OF GST ON INDIAN ECONOMY**Dr. Sunita S Yadav**Shri Ram College of Commerce, Bhandup (West) Mumbai

ABSTRACT

The Research paper is regarding how GST is become Tax Act in parliament and its different slab rate. The aim of this research paper is to explain mechanism of GST and its positive and negative impact on various sectors of economy. This research paper also discusses features and importance of GST for the boosting Indian economy.

Keywords: GST, State Government, Center Government, Impact on Economy, Importance of GST.

INTRODUCTION

GST (Goods and Services Tax) is the biggest indirect tax reform of India. GST is a single tax on the supply of goods and services. It is a destination based tax. GST has subsumed taxes like Central Excise Law, Service Tax Law, VAT, Entry Tax, Octroi, etc. GST is one of the biggest indirect tax reforms in the country. GST is expected to bring together state economies and improve overall economic growth of the nation. GST is a comprehensive indirect tax levy on manufacture, sale and consumption of goods as well as services at the national level. It will replace all indirect taxes levied on goods and services by states and Central. Businesses are required to obtain a GST Identification Number in every state they are registered.

GST is a destination based taxed where the tax is collected by the State where goods are consumed. GST has been implemented in India from July 1, 2017 and it has adopted the Dual GST model in which both States and Central levies tax on Goods or Services or both.

- SGST – State GST, collected by the State Govt.
- CGST – Central GST, collected by the Central Govt.
- IGST – Integrated GST, collected by the Central Govt.
- UTGST – Union territory GST, collected by union territory government

The Central government passed four sets of GST Acts in the Budget session this year. These were Central GST Act, 2017; Integrated GST Act, 2017; Union Territory GST Act, 2017 and GST (Compensation to States) Act, 2017. The Acts were approved by the Parliament after they were introduced as part of the Money Bill. Following the passage of the GST Acts, the GST Council decided the rate slabs for the Goods and Services to be taxed under the GST regime.

Under GST ,Goods and Services fall under five tax categories

Exempted categories – 0

Commonly used Goods and Services – 5%

Standard Goods and Services fall under 1st slab – 12%

Standard Goods and Services fall under 2nd Slab – 18%

Special category of Goods and Services including luxury - 28%

GST, which works on principle of “one nation, one tax, one market” is aimed at unifying the country’s \$ 2 trillion Economy and more than 1.3 Billion people into a common market.

RESEARCH METHODOLOGY

This is a type of descriptive research paper. It is in based on secondary data and empirical study.

OBJECTIVE OF STUDY

- Mechanism behind working of GST in India
- Focus on impact of GST on India economy as whole.

DATA COLLECTION

This is a type of descriptive research paper based on secondary data collected from different Books, research Journals, news –papers and few web sites.

KEY FEATURES OF GST IN INDIA**Dual Tax Structure**

- Centre and State both will levy tax on every transaction related to supply of goods/ services
- Tax to be levied by Centre and States to be called Centre GST ('CGST') and State GST ('SGST')

Integrated GST on inter-state supplies

- Centre to have exclusive power to levy IGST on inter-state supplies
- It will be called Integrated GST ('IGST')
- Revenue would be shared between Centre and Consumption State.

Supply without consideration

- Supply between two distinct establishments of same legal entity taxable even without consideration
- Supply of goods between agent and principal taxable
- 'Gifts' by employer and employee for an amount exceeding INR 50,000 taxable

Imports/Exports

- Imports will be treated as inter - state supplies and would attract IGST, apart from BCD on goods.
- Exports to be zero rated.

Exemptions / Concessions

- Exemption to various goods and services.
- Existing incentive schemes to be converted to 'reimbursement route'.
- Certain petro products though in GST, would continue to attract present taxes. GST to be activated at a later date.

Compliance/ Tax Administration

- Online system for tax compliances
- GST Facilitation centers, GSPs, ASPs to assist tax payers for tax filings registrations etc.

BENEFITS OF GST

GST will bring numerous benefits to all stakeholders viz industries, government and citizens. Some of these benefits are listed below:

Seamless Flow of Credit: GST will facilitate seamless credit across the entire supply chain and across all States under a common tax base.

Elimination of Cascading effect: Goods & Service Tax would eliminate the cascading effects of taxes on production and distribution cost of goods and services. The exclusion of cascading effects i.e. tax on tax will significantly improve the competitiveness of original goods and services in market will lead to beneficial impact to the GDP growth of the country. It is felt that GST would serve a superior reason to achieve the objective of streamlining indirect tax regime in India which can remove cascading effects in supply chain till the level of final consumers.

Revenue Gain: Revenue will increase under GST regime because of widening of the dealer base by capturing value addition in the distributive trade and increased compliance.

Enhanced Transparency: GST regime shall enhance transparency in the indirect tax framework and is expected to bring down the rate of inflation.

Zero rated Exports: Under the GST regime, exports will be zero rated in entirety unlike the present system where refund of some taxes is not allowed due to fragmented nature of indirect taxes between the Centre and the States. All taxes paid on the goods or services exported or on the inputs or input services used in the supply of such export goods or services shall be refunded.

GST will boost Indian exports, thereby improving the balance of payments position. Exporters will be facilitated by grant of provisional refund of 90% of their claims within seven days of issue of acknowledgement of their application, thereby resulting in the easing of position with respect to cash flows.

Increased Uniformity: Uniform GST rates will reduce the incentive for evasion by eliminating rate arbitrage between neighboring States and that between intra and inter-State sales. Harmonization of laws, procedures and

rates of tax will make compliance easier and simple. There would be common definitions, common forms/formats, common interface through GST portal, resulting in efficiencies and synergies across the board. This will also remove multiple taxation of same transactions and inter-State disputes like the ones on entry tax and e-commerce taxation existing today.

Increased Certainty: Common procedures for registration of taxpayers, refund of taxes, uniform formats of tax return, common tax base, common system of classification of goods or services along with timelines for every activity will lend greater certainty to taxation system.

Increased Digitalization: GST is largely technology driven. The interface of the taxpayer with the tax authorities will be through the common portal (GSTN). There will be simplified and automated procedures for various processes such as registration, returns, refunds, tax payments, etc. All processes, be it applying for registration, filing of returns, payment of taxes, filing of refund claims etc., would be done online through GSTN. The input tax credit will be verified online. Electronic matching of input tax credit across India will make the process more transparent and accountable. This will encourage a culture of compliance. This will also greatly reduce the human interface between the taxpayer and the tax administration, leading to speedy decisions.



Importance of Goods and Service Tax to the Indian Economy

- Removal of bundled indirect taxes such as VAT, CST, Service tax, CAD, SAD, and Excise.
- Less tax compliance and a simplified tax policy compared to current tax structure.
- Removal of cascading effect of taxes i.e. removes tax on tax.
- Reduction of manufacturing costs due to lower burden of taxes on the manufacturing sector. Hence prices of consumer goods will be likely to come down.
- Lower the burden on the common man i.e. public will have to shed less money to buy the same products that were costly earlier.
- Increased demand and consumption of goods.
- Increased demand will lead to increase supply. Hence, this will ultimately lead to rise in the production of goods.
- Control of black money circulation as the system normally followed by traders and shopkeepers will be put to a mandatory check.
- Boost to the Indian economy in the long run.

Positive impacts of the GST on Indian Economy

1. Business Booster

GST is might turn out to be a win-win situation for the entire country. It will bring benefits to all the stakeholders of industry, the consumer and the government because it will lower the cost of goods and services and give a boost to the economy and make the products and services globally competitive. The aim of GST is to make India a common market with common tax rates and procedures and remove the economic barriers. It will pave the way for an integrated economy at the national level. The GST system is largely based on technology. It

will reduce the human interface to a great extent and this would lead to speedy decisions. Hence, it will result in a better and speedy environment for doing businesses.

2. Strengthen Make in India initiative

GST is expected to give a major boost to the 'Make in India' initiative of the Government of India by making goods and services produced in India competitive in the National as well as International market. Apart from it, all imported goods will be charged with integrated tax (IGST) which is equivalent to Central GST + State GST. This will bring equality with taxation on local products.

3. Transparency

The indirect tax laws would be more transparent after the implementation of GST. Since under the GST, the whole supply chain will be taxed at every stage with credit of taxes paid at the previous stage is available for set off at the next stage of supply. This will make it easier to distinguish the economics and tax value of supplies. Eventually, this will help the industry to take credit and the government to verify the correctness of taxes paid and the consumer to know the exact amount of taxes paid.

4. Easy Tax Paying

The GST will eradicate the requirement to maintain records and show compliance with a myriad of indirect tax laws of the Central Government and the State Governments like Service Tax, Central Excise, VAT, Entertainment Tax, Central Sales Tax, Entry Tax, Luxury Tax, etc. They would only need to maintain records and show compliance in respect of Central Goods and Services Tax Act and State (or Union Territory) Goods and Services Tax Act for all intra-State supplies (which are almost identical laws) and with Integrated Goods and Services Tax for all inter-State supplies (which also has most of its basic features derived from the CGST and the SGST Act).

5. Improvement in Internal Trade

It is reasoned that in the wake of GST internal trade is showing the sign of growth. The GST is expected to bring about reduced tax exemption, which could have a bearing on prices of goods and capital requirement for managing cross-border supply chains. It will also reduce duty benefit imposed on imports and reduced export incentives and drawback on exports.

6. Research and Development

The government made an important announcement that it will withdraw the R&D cess, with effect from April 1, 2017. Consequently, the service tax abatement/exemption of R&D cess enjoyed by taxpayers so far is also proposed to be done away with. This would be welcomed by the industry as R&D cess was a sunk cost to taxpayers, being non-creditable in nature. Only a set-off of R&D cess already paid was available against service tax. Withdrawal of R&D cess would certainly encourage technology imports and incentivize domestic value addition.

7. Manufacturing

Services in relation to undertaking the process of manufacturing/production of goods, have been omitted from the negative list and moved to list of exempted services. Similar amendments have been made in the past where an entry has been moved from the negative list to the general exemption list. While the amendment doesn't seem to entail any immediate implications, this gives the power to the government to impose the tax on all the services falling in this category in future by an introduction of a mere notification, instead of adopting a circuitous path of amending the Finance Act provisions. Keeping in mind the Make in India initiative, the Budget proposals also seek to correct duty inversions that have been plaguing certain manufacturing sectors in India. Customs and excise duties on certain inputs and raw materials used for manufacturing final products in the automobile, renewable energy sector and petrochemical sector (among others) have been reduced which shall help in correcting the issue of accumulation of credits, which affects the cash flow of various taxpayers. This rationalization of duty rates would certainly boost domestic manufacturing.

8. Technology

The GST is believed to be a beneficial factor for Technology Industry as it will eliminate multiple levies. It will also allow deeper penetration of digital services. After GST, IT companies can have several delivery centers and offices working together to service a single contract. With GST, companies might require each centers to generate a separate invoice to every contracting party.

9. Reduction in the Cement Prices

The current effective rate of tax for cement companies is 25%. If GST rates are fixed at 1820% then the overall tax incidence will be lower on cement. GST IS expected to lead to savings in transportation cost, which

currently comprises up to 2025% of total revenue. One common market will bring down the number of depots in the country. It will save the transportation cost and will bring down the prices

10. Agriculture

The GST will contribute in setting up a National Agricultural Market for agricultural products. This will involve all the farmer and traders in the regulated markets with a common e-commerce platform for a transparent, impartial trade of agri-commodities.

The GST will improve the supply chain mechanism which would ensure the reduction in wastage and cost for the farmers/retailers. Under the model GST law, dairy farming, poultry farming, and stock breeding are kept out of the definition of agriculture. Therefore, these will be taxable under the GST.

NEGATIVE IMPACT OF GST

1. **Dual Control** - GST is being referred to as a single taxation system but in reality it is a dual tax because both the state and center both will collect separate tax on a single transaction of sale and service.
2. **Incumbent increase of the cost of some commodities** - The tax rate has been increased for many products, thus increasing their costs.
3. **Some sector is at a loss**- Sectors like Textile, Media, Pharma, Dairy Products, IT and Telecom are bearing the brunt of a higher tax. Also the price of commodities has increased like jewellery, mobile phones and credit cards.
4. **Real Estate Market affected** - Economists are of the opinion that GST in India has already had a negative impact on the real estate market. It has added up to 8 percent to the cost of new homes and reduced demand by about 12 percent.
5. The short term impact of GST is expected to be neutral to negative for the boarder Economy.
6. Services will be more expensive e.g. Airline, Banking, Telecom etc.
7. Being new tax and slab rate it will definitely take for the people to understand its implications.
8. If actual benefit is not passed to consumer and seller increases his profit margin, the prices of goods can also see a rising mood.
9. For consumer it will Thoda khushi thoda gam as some goods become cheaper while other will be expensive.

CONCLUSION

GST in India is just beginning and it is at the infant stage in the economy. GST mechanism is designed in such a manner that it is expected to generate big amount for revenue for both state as well as center government. GST system will bring transparency in collection of indirect taxes benefiting both state and center government and public of India.

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LOYALTY OF MEN'S BRANDED APPAREL SHOPPERS TOWARDS DEPARTMENT STORES IN THE CITY OF MUMBAI

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ABSTRACT

This research paper tries to evaluate the position of different department stores with respect to branded apparel shopping by men consumers in the city of Mumbai. It also lists the different criteria that men shoppers use while choosing a department store for apparel shopping.

Design/methodology/approach: Need for the study- Growing number of women in the workforce as well as education sector as students and educators has increased the demand for more varied set of branded apparel in a men's wardrobe. There is also intense competition between the retailers to entice a pie of the market share. This study tries to find out the different branded apparels in the Indian men's wardrobe and what preference they have towards the different retailers operating in the city of Mumbai. It also throws light on the factors that make a retailer more favourable than the other.

Findings –The average Mumbai city men's wardrobe seems to be dominated by casual wear. There are set of people in the higher class who tend to possess branded formal wear. Though many retailers have a brand recall the actual purchase seems to be happening in five of the major stores – Lifestyle, Pantaloon, Max, Reliance trends and Shoppers Stop. Sales offer and the range of brands available are the main reasons as to why shoppers prefer a particular retailer.

Originality/value – Previous studies have identified different loyalty indicators towards stores selling apparel but no specific studies have been carried out for the city. Moreover specific factors like mix and match options, comfort level of clothing available have not been studied by previous researchers

Keywords: India Men's , apparel Retailing, Department stores

INTRODUCTION

Today, 7 billion men work worldwide, and more than half of college students are men. Men will drive an incremental \$8 trillion in global spending in the next several years. Women today are economically more active, marry later in life, have fewer children, have more decision-making power and are becoming a lucrative market segment (Bartos, 1994; Bruce & Parkinson-Hill, 1999; Cassill, 1990; Du Plessis & Rousseau, 1999; Erasmus & van Zyl, 1994; Nelson, 1994; Schaninger, Nelson & Danko, 1993). Even men's shopping has drastically increased in the past and will keep increasing in the near future. According to Euromonitor 2018 the growth in apparels in India in 2018 reached 18 % in current terms and double-digit growth rates are also expected by the year end. In 2017, apparel and footwear in India experienced healthy sales growth as the impact of demonetization subsided and consumption picked up. Increasing disposable income levels and growing penetration of organized retail within apparel and footwear helped drive growth during the year. Apparel and footwear sales were impacted in late 2016 when the Indian government undertook a series of measures to curb corruption and black economy. On 8 November 2016 the government announced that existing INR500 and INR1,000 notes would no longer be valid. Therefore, it comes as no surprise that India has become a key next step in global expansion strategy for major fashion brands. Overall India is expected to contribute over US\$19 billion to the global apparel and footwear market by this year end.

With new policies encouraging foreign investment and increasing the number of foreign retailers in India, local retail chains have responded both offensively and defensively. Having seen the retail opportunity, several Indian retailers have started to establish a strong hold in the market and are aggressively expanding to fortify their positions. Shopper's stop, Pantaloon, Westside, Globus, Big Bazaar, and Lifestyle are some of the examples of local Indian retailers. The new Indian consumer is definitely more materialistic. The Indian consumer base's needs include global, glocal, and local products (Khanna and Palepu, 2006). While there is a growing demand for luxury goods and international brands, these consumers are not only enamored by products from foreign retailers, but also by local goods provided by the Indian retailers (Gopal and Srinivasan, 2006). Also, the growth in the information technology and IT enabled services industry is significantly driving consumerism in urban India. Along with significant increases in salaries, these changes have increased the consumer spending on apparel significantly. Apparel is now the second largest consumption category in malls ("Apparel retail: labeling the Indian market", 2006).

Today not only more store retailers are competing for the same market, but also online retailers are competing with store retailers for the same consumer dollars. Several consumer-oriented factors have also contributed to challenges in apparel retailing. Some of them include fluctuations in the economy, changes in consumer demographic and lifestyle profiles, and loss of consumer markets. (Moye, 2000). Department stores normally appeal to middle and upper income consumers. These stores are largely soft-goods retailers, but they offer approximately 20% hard-goods. Unlike shopping at discount retailers, consumers often shop department stores because they carry a wide selection of popular brand name, store label, and designer label merchandise at multiple price points (Lewison, 1994).

LITERATURE REVIEW-

Marketing and retail literature points out several store attributes that determine store selection by consumers. Some of these include shopping trip patterns (Kahn and Schmittlein, 1989), merchandise assortment (Pan and Zinkhan, 2006), merchandise quality (Baltas and Papastathopoulou, 2003; Theodoridis and Priporas, 2009), store price, services offered (Pan and Zinkhan, 2006), store atmosphere, convenient location (Arnold et al., 1978; Briesch et al., 2009),

The choice of apparel items will be influenced by variables such as demographics, stage in the family life cycle, income, employment orientation, shopping orientation and lifestyle. Promotional efforts by the retailer should focus on these variables in order to reach the target market. Female apparel consumers differ with regard to their demographic characteristics, store patronage, lifestyle, culture and shopping orientations. Differentiated marketing strategies are therefore necessary, (Preez et al 2003)

Male apparel shopping behaviour in a multicultural consumer society is a complex phenomenon. Sproles and Burns (1994) emphasize that apparel purchases are different from the purchase of home appliances, as most consumers do not formally gather product information prior to the purchase, but rather make most of their decisions in-store. The choice of a store to patronize is therefore of great importance, as apparel consumers will often gather information, evaluate alternatives and make decisions at the point of purchase. For women's apparel, the largest consumers of Western styles are college students, followed by women executives in urban areas. As the number of working women is rising, increasing the demand for western clothing because of women's changing social roles and increased income (Batra and Niehm, 2009).

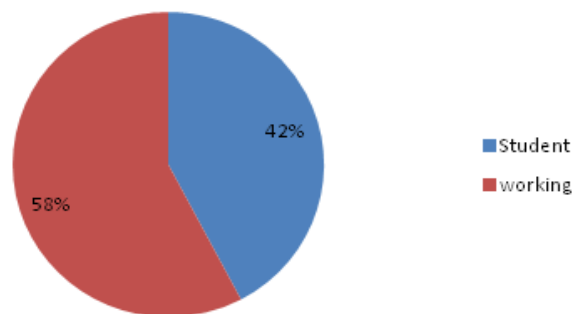
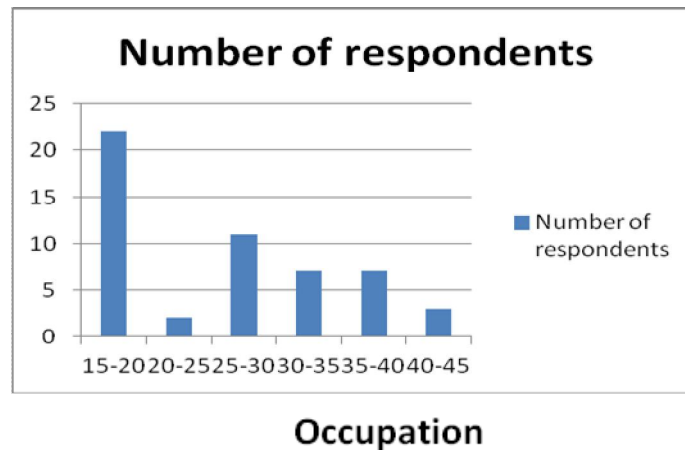
Women have always been the leaders in adopting fashion in India. (Biswas, 2006). The increased spending on clothing may be driven by the new comfort level with the use of credit cards. The number of credit card users in India is 17 million has been increasing 30-32 per cent annually. About 45 per cent of the credit card spending is contributed by shopping for clothing, jewelry, and eating out ("Apparel retail: labeling the Indian market", 2006). A survey by A.C. Nielsen showed that 22 per cent Indians shopped once a week and 32 per cent shopped once a month for pleasure. About 20 per cent of Indians preferred shopping for textile and apparel over food.

RESEARCH METHODOLOGY

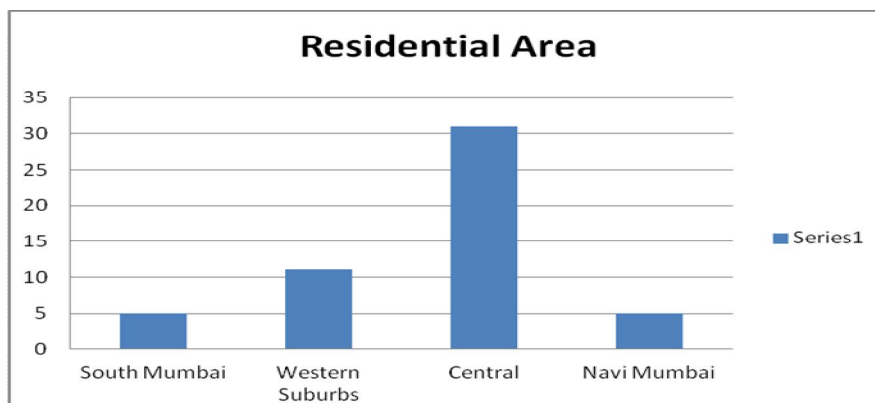
- **Need for the study** – Growing number of working men in the workforce and changing profile of the professional needs. Moreover the challenges for brick and mortar retailer is not only from the foreign retailers but also from the e-tailers. Many of the top retailers like Pantaloon, Shopperstop have been present in the city for quite some time. And there is a need to identify which of them is the choice of modern Indian men. The rise in the working women has created a demand of wider portfolio of apparels to meet her personal and women consumers in the city with multicultural values.
- **Sample size & Type**- A total number of 82 respondents consisting of college students and working professionals. Simple random sampling was used.
- **Research Instrument**- A questionnaire with multiple options for each question was administered on the respondents.

ANALYSIS

- **Descriptive analysis**- The respondents were men in the age group of 15 to 45 years. 58% of the respondents were working men while 42% were students.



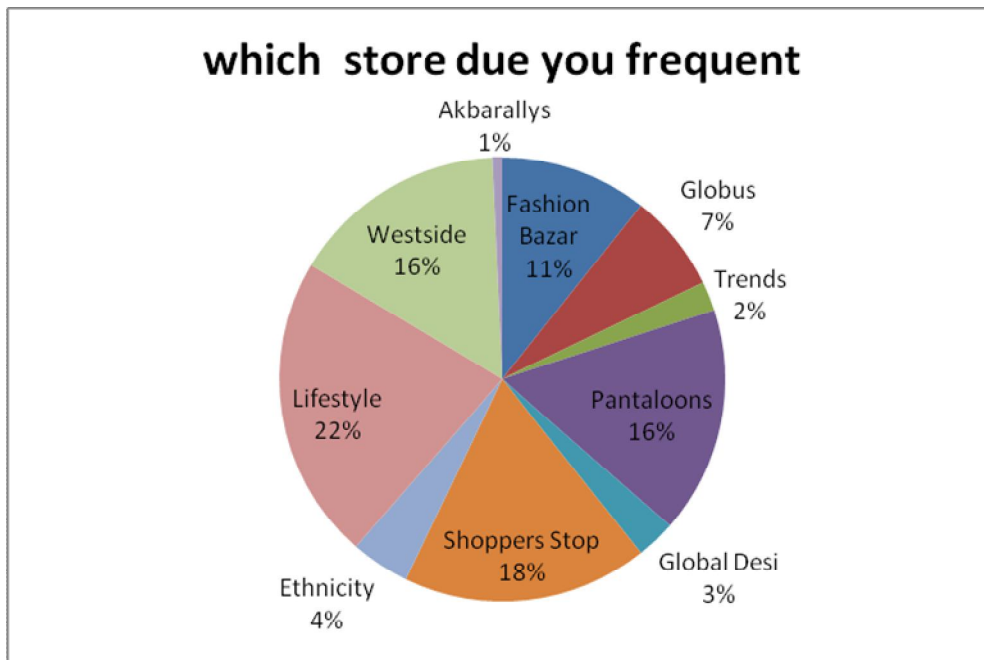
As depicted in the graph below the maximum number of respondents resided in the central region followed by the western suburbs. The presence of the department stores in these areas had a profound impact on their choice of a store.



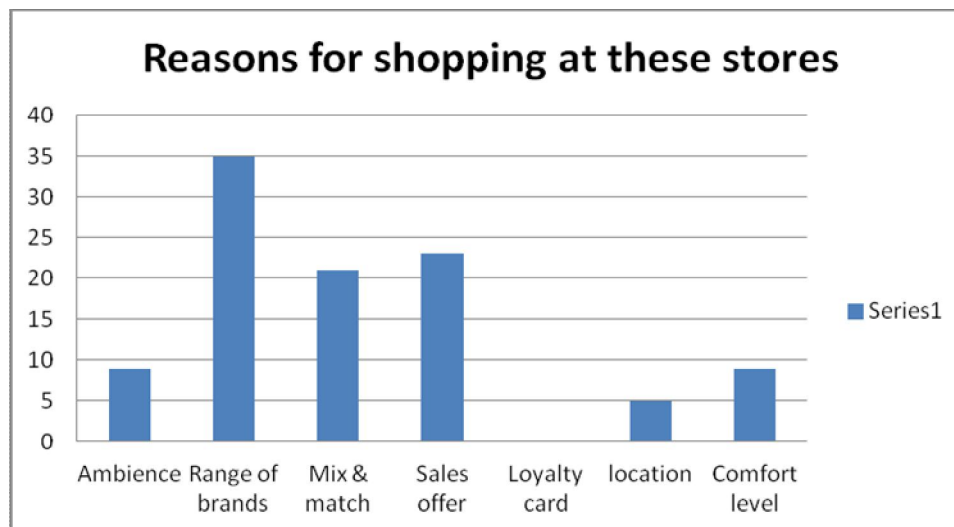
Casual wear was the most shopped for apparel by the women. The reason for this could be it doubles as a college wear or as an office wear. Average city women has not woken up to the concept of strictly dividing her wardrobe.



Lifestyle stores topped the list of stores frequented by the respondents while Shoppers stop came a close second. West side and pantaloons were locked for the third position



Most of the respondents said that the range of brands available was the most important deciding factor while choosing a store for apparel while sales offer as well the availability of mix and match option was also a crucial deciding factor.



IMPLICATIONS FOR THE RETAILERS-

1. The average city men shop a little for formal wear and it actually doubles up the casual wear for office wear also. Hence the stores should concentrate on allotting more space in their stores for casual wear and formal wear subsequently.
2. The range of national and international brands available in the store is important to the men consumer.
3. The availability of mix and match option is very common in women shoppers. They should be available to men consumers also. At present the store layout does not have a fixed allotment for this sub category, which needs to be done.
4. Loyalty card seems to be not at all figuring in the reasons for choosing a store. The company's need to work aggressively to achieve success in this front .
5. Most of the stores of the top three retailers identified in the study are located on the central line which might have a bearing on the preference for the stores . The number of stores in the city of a retailers also is important.

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RECENT TRENDS IN ENTREPRENEURSHIP IN INDIA

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ABSTRACT

Entrepreneurship can be viewed as a creative and innovative response to the environment and an ability to recognize, initiate and exploit an economic opportunity. Entrepreneurship is doing things that are generally not done in the ordinary course of business, it is characterized by risk-taking, and is an essential part of a nation's ability to succeed in an ever changing and increasingly competitive global marketplace. To be successful there are different trends adopted by Indian Entrepreneurs in year 2019 and young entrepreneurs will need to keep these recent trends in mind when they are starting their enterprise. The present study reveals about the recent trends of Entrepreneurship and importance of Entrepreneurship in present globalised market place.

Keywords: Entrepreneurship, Entrepreneur, Risk-Taking, Innovation

I. INTRODUCTION

Entrepreneurship has gained greater significance at global level under changing economic scenario. Global economy in general and Indian economy in particular is poised for accelerated growth driven by entrepreneurship. There are different trends to attract the Indian Consumers affects the business environment and increasing the scope for entrepreneurship in trading and manufacturing.

An entrepreneur is a person who is able to look at the environment, identify opportunities to improve the environmental resources and implement action to maximize those opportunities. It is important to bear in mind the entrepreneurial skills that will be needed to improve the quality of life for individuals, families and communities and to sustain a healthy economy and environment. Risk taking ability, self-confidence, decision making ability, knowledge of technology, economic motivation, market orientation, ability of co-ordination according to business environment, etc., are indicators of behavior of entrepreneurs.

II. METHODOLOGY AND OBJECTIVES

The study is based on the secondary data which has been collected through government reports, books, research paper and websites etc.

The present study is based on following objectives:

- 1) To study the recent trends adopted by Entrepreneurs in India
- 2) To study the Importance of Entrepreneurship in Economic Development.

III. FINDINGS OF THE STUDY

A) Trends Adopted by Entrepreneurs in India in 2019

The customer base in India is going through a big change with an increased access to the Internet and digital channels. The consumption patterns of content are changing as well, 90% of new Internet users coming online in India are non-English users, according to a report by KPMG. Artificial intelligence and self-service platforms are allowing entrepreneurs to meet customer expectations at large scale.

With the effect of demonetization and the Digital India initiatives enterprises nowadays have adopted digital and mobile payment systems in a big way. Recent trends that are adopted by the Entrepreneurs are as below:

a) Telecommuting – a new norm

Entrepreneurs are taking the help new technology, with new project management, collaboration, video chat and file sharing platforms coming into the market, remote working and telecommuting are the new norm. This trend is helping the entrepreneurs in reducing the cost of doing the business and enabling their employees to work with teams across different locations easily.

b) Millennial will rule the market

The size of the millennial market will grow and start to dominate. Millennials are expected to have the most spending power of any generation. They look at the world differently and are very active consumers of digital content. This will cause a shift in media mix, tools and tactics, with entrepreneurs moving towards social media, influencer, video and mobile for marketing and to engage with the millennial audience.

c) Better access to financing

Entrepreneurs face many challenges with getting access to finance on time. Technology, analytics, automation and improved customer journey processes will make it easier for enterprises to get access to finance at the right time.

d) Improved invoicing solutions.

Web developers are using tools to connect different apps to provide single accounting solutions to Entrepreneurs.

e) Moving online

Digital channels and the Internet have enabled entrepreneurs to scale up and grow faster. Technology has empowered to look beyond their existing markets and expand their businesses to new markets. Enterprises that are online are growing much faster than those that are offline. There is a lot of potential for growth for these businesses.

f) Lead Management capability

Entrepreneurs are actively looking for newer business opportunities and use various platforms and digital channels for getting customer leads. CRM solutions that are inexpensive, easy to operate and mobile-friendly will help them manage these leads and customer-data effectively.

g) Ease of doing Business

India has gained global rankings in “Ease of doing business” and one of the top reformers in improving its score. There are more reforms in areas such as business setup, enforcing contracts, resolving insolvency, paying taxes, etc. which drive this growth.

h) Personalised Marketing

There is a lot of data collected from customers that is now available for use by entrepreneurs. This has allowed companies to run targeted and relevant marketing campaigns at a large scale.

i) Messenger services and platforms

Messenger services being used in a big way to promote business, it created a platform that can connect them directly to end-customers and open up new avenues of customer experience and support .

B) Importance of Entrepreneurship in Economic Development

Entrepreneurship contributes an important part towards economic development of the country. Importance can be stated as follows: (Dhaliwal, 2016).

i) Capital Formation – It promotes capital formation by organizing the savings of the public. Resources are borrowed for establishing enterprises. Such types of entrepreneurial activities lead to value addition and creation of wealth, which is essential for the industrial and economic development of the country.

ii) Employment Opportunities - Entrepreneurship provides direct employment opportunities to the individuals on a large scale. With establishing of more and more units by entrepreneurs, many job opportunities are created for others. As enterprises develop, they provide direct and indirect employment opportunities to many individuals. In this way, entrepreneurship contributes an effective part in reducing the problem of unemployment within the country, which in turn clears the pathway towards economic development.

iii) Balanced Regional Development - Entrepreneurship help to remove regional differences, through setting up of industries in less developed and backward areas. The growth of industries and business in these areas lead to a large number of public benefits, like road transport, health, education, entertainment, and so forth. Setting up of more industries lead to more development of backward regions and thereby, promote balanced regional development.

iv) Economic Power - Economic power is the normal result of industrial and business activity. Industrial development usually leads to concentration of economic power in the hands of few individuals, which results in the growth of monopolies. In order to redress this problem, a large number of entrepreneurs need to be developed, which will help reduce the concentration of economic power amongst the population.

v) Gross National Product and Per Capita Income - Entrepreneurs are always looking for opportunities. They discover and exploit opportunities, inspire effective resource mobilisation of capital and skill, bring in new products and services and develops markets for the growth of the economy. In this way, they assist in increasing gross national product as well as per capita income of the people. Increase in gross national product and per capita income of the individuals indicates that economic development is taking place in an effective manner. In order to encourage economic development, it is vital to ensure that individuals are not unemployed or facing scarcity of resources.

vi) Improvement in the Standard of Living - Improvement in the standard of living of the individuals is a feature of economic development of the country. Entrepreneurs contribute a crucial part in increasing the standard of living of the individuals, by adopting latest trends and innovations in the production of wide variety of goods and services on large scale that too at a lower cost. This enables the individuals to avail improved quality products at lower prices which results in the improvement of their standard of living.

vii) Promotes Country's Export Trade - Entrepreneurs assist in promoting a country's export trade, which is an important component of economic development. They produce goods and services on large scale for the purpose of earning large amount of foreign exchange from export. Hence export promotion ensures economic independence and development.

viii) Facilitates Overall Development - Entrepreneurship act as catalyst which results in chain reaction. Once an enterprise is initiated, the process of industrialisation is set in motion. This unit will create demand for various types of units, required by it and there will be so many other units which require the output of this unit. This leads to complete development of an area, due to increase in demand and setting up of more units.

ix) Creating Innovation - An entrepreneur is a person, who always look for changes, apart from linking the factors of production, he also presents new ideas and new combination of factors. In the production process, an entrepreneur always makes an attempt to bring in innovative strategies and methods. An entrepreneur promotes economic development through innovation.

x) New Businesses – The development of businesses, generating employment opportunities for the individuals, introducing innovative strategies and methods, bringing in new products and services for the welfare of the individuals are the factors that highlight the aspect that entrepreneurs create new businesses. In various fields, there have been introduction of advanced techniques, methods and procedures, which have nurtured the lives of the individuals.

xi) Create Social Change – Through their exceptional contributions of new goods and services, entrepreneurs break away from practice and indirectly sustain freedom by decreasing dependence on traditional and outdated systems and technologies which results in an enhanced quality of life, better determination and economic freedom.

xii) New Business Ideas into Practice – The integral part of entrepreneurship is to generate new ideas and put them into practice in an appropriate manner. As it has been stated that entrepreneurs always looks for innovative strategies and methods that may enhance productivity and profitability. Taking ideas, suggestions and guidance from other professionals in the similar field has contributed towards growth and fulfilment.

IV. CONCLUSION

Entrepreneurship has significance in the present scenario, not only because it helps the entrepreneurs in accomplishing their personal needs but also in economic contribution of the new undertakings. More than increasing GDP by the formation of new jobs, entrepreneurship acts as a constructive force in economic growth by serving as the bridge between innovation and market place.

Being an entrepreneur is not just starting a business, it is about having an approach and one should be motivated to succeed in the achievement of goals and objectives. All successful entrepreneurs have a similar way of thinking and possess several key personal qualities that make them successful in business. Entrepreneurs need to possess the required skills, abilities and also adopt the recent trends for the sustainable development. They should be well prepared to face the opportunities and challenges within the internal and the external environmental conditions. In the present existence, Entrepreneurs have to adopt the emerging trends in order to be competitive in the market which will also contribute towards the economic development of the country and it will generate employment opportunities for number of individuals.

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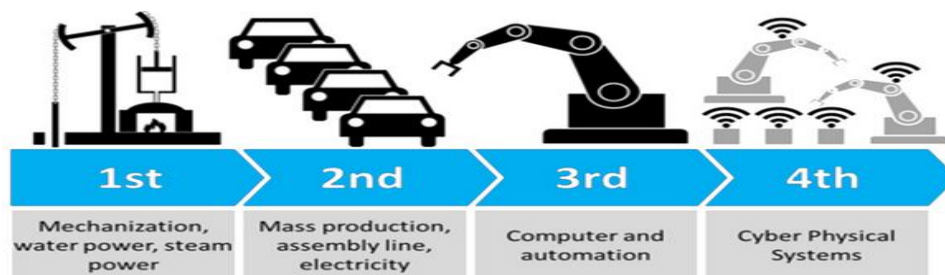
IIOT SECURITY

Gargi V. Kulkarni¹ and Harish Chandar²Student¹, Cyber Security Analyst (L1 Intern) from India Tech International Company
Director², India Tech International**ABSTRACT**

The advent of the industrial age has impacted the world fully in a big way. Right from days of the steam-based industries, man has come a long way to the Industrial IOT (IIOT) of today. Path breaking changes were made along the way paving for new and exciting technologies to be incorporated. Beginning with Industry 1.0, 2.0, 3.0 and now Industry 4.0 the industrial productivity has been enhanced greatly. The proliferation of sensors, actuators, microcontrollers and their accompanying ecosystem has played a major role in the advent of the IIOT. With such a revolution of this magnitude, it is bound to have some security issues, this paper is an attempt to explain IIOT and unravel some of the security challenges it poses.

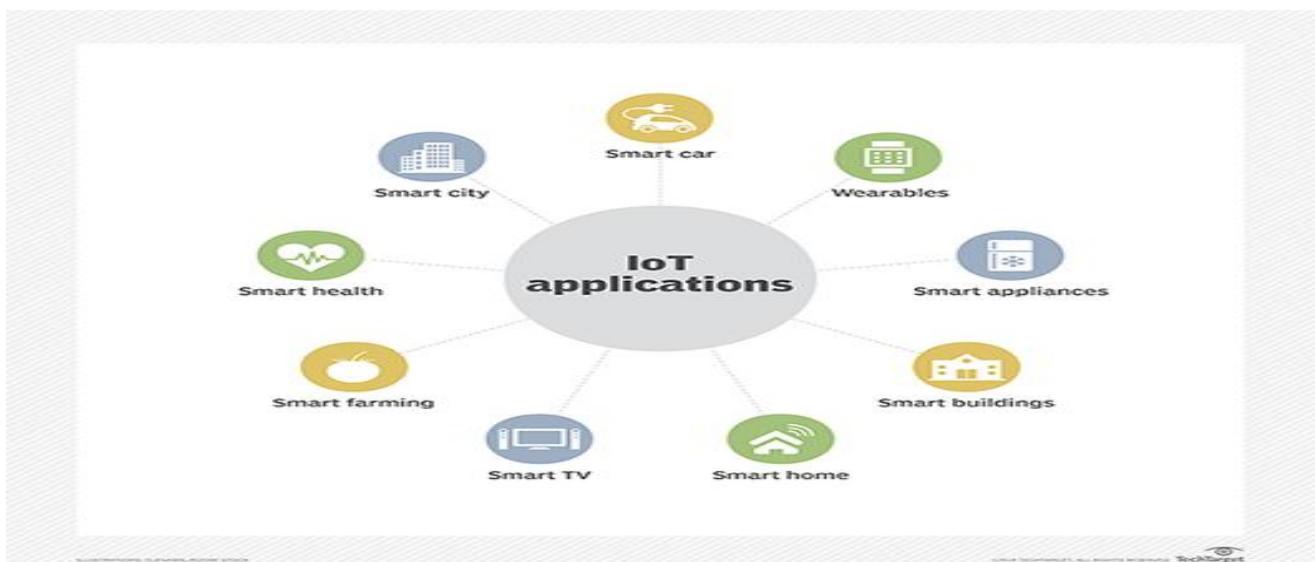
I. INTRODUCTION

The industrial revolution has undergone many changes since the beginning of its time. Step by step from each stage it has grown from strength to strength. It all began with Industry 1.0, where the key elements were mechanization and using water and steam power for running the industry. Things started changing with Industry 2.0 where things were produced on a mass scale using assembly line; electricity played the main role here. Rapid progress was made by introducing computers & automation from Industry 3.0. This improved productivity by a large margin making scaling up to massive levels easy. With Industry 4.0, several big changes were done and cyber physical systems were introduced for the first time. This Industry 4.0 is some-times called as industrial IIOT.

**IOT- Internet of Things- A quick brief**

https://en.wikipedia.org/wiki/Internet_of_things

The IOT was introduced in industry version 3.0. The concept here was quite simple. It involved connecting the normally unconnected devices to the internet, creating a grid of smart devices. Day to day devices & appliances were the typical targets for the IOT. Sensors were connected to all these devices to record their status dynamically. Massive networks can be created using these sensors and devices. Therefore the IOT lays the foundation of a smart city.



The **Internet of things (IoT)** traditionally links the dumb devices to the internet, therefore remote monitoring & controlling is possible.

II. IIOT-industrial IOT

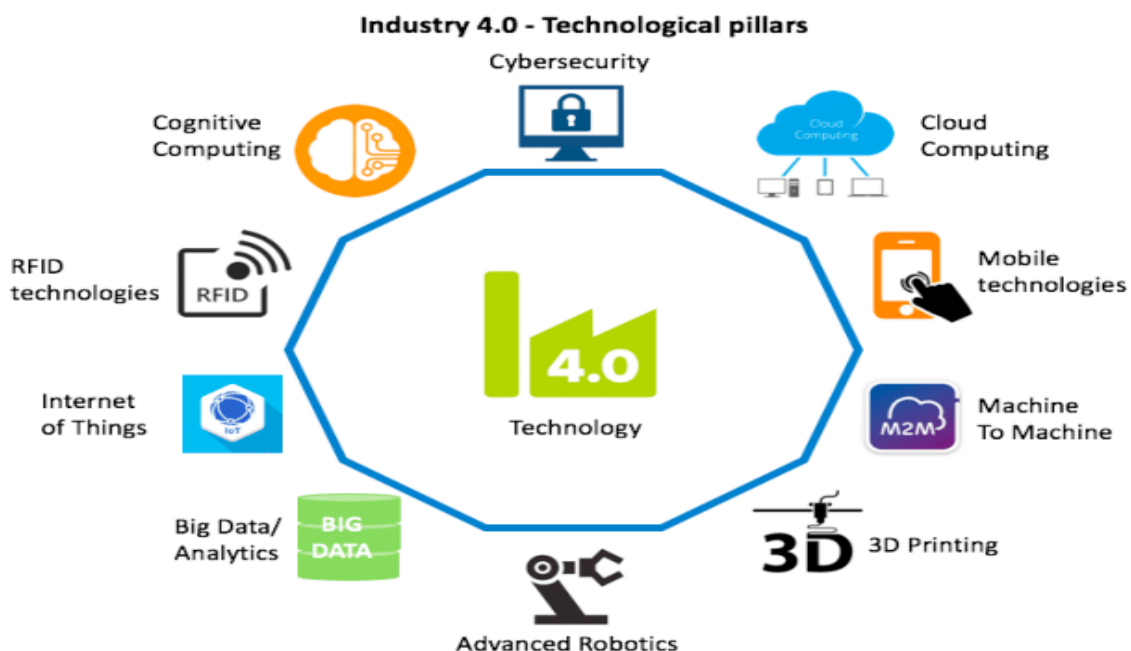
The industrial internet of things or IIoT uses the IOT technologies to increase the productivity of manufacturing and industrial process. The IIoT uses Machine learning, Artificial Intelligence and Big data technologies along with the sensor data, machine-to-machine (M2M) communication and utilizes them for better productivity.

The IIoT uses smart machines since machines are better at accurately and consistently capturing and communicating real-time data. This data enables companies to identify the different inefficiencies and problems in a quick way thus saving time and money. In general, IIOT helps in better quality control, efficiency & sustainability. For a typical Industry, the IIOT provides: -

- Energy management
- Predictive maintenance
- Asset tracking

III. Building the IIOT

In making the IIOT infrastructure possible, there are nine technologies that are generally used.



1. Cloud computing

Instead of depending upon local server for data storage, IIOT uses cloud computing where a network of remote servers is used for data storage and management therefore critical data is available at any time and any place.

2. Mobile technologies

Critical data from different parts of the factory can be easily controlled & monitor using mobile applications. Therefore, the operator can be in any part of the globe & yet control the situation.

3. Machine to machine(M2M)

This involves two machines communicating with each other, without human interaction/interference. Since in a factory there will be many machines, M2M is a great way of interaction.

4. 3D Printing

Using 3D printers, it is possible to print the required machine parts, using plastics/metals. These 3D Printers can be directly attached to the cloud/internet, thus enabling on demand creation of spare parts.

5. Advanced Robotics

Using robotics arms, it is possible to automate the process in a factory. Mission critical and risky work in a factory can be given to the robots to be done in an efficient way.

Robots can be deployed where humans cannot be deployed.

6. Big Data/Analytics

Since entire factories with millions of components, create several terabytes of data, this big data can be usefully analyzed & patterns can be recognized, to help understand potential problems.

7. IOT

This is the real heart of IIOT. It's a network of sensors and actuators connected at the factory level. IOT introduces smart technologies at the factory level. IOT can be deployed across a wide range of protocols & architecture.

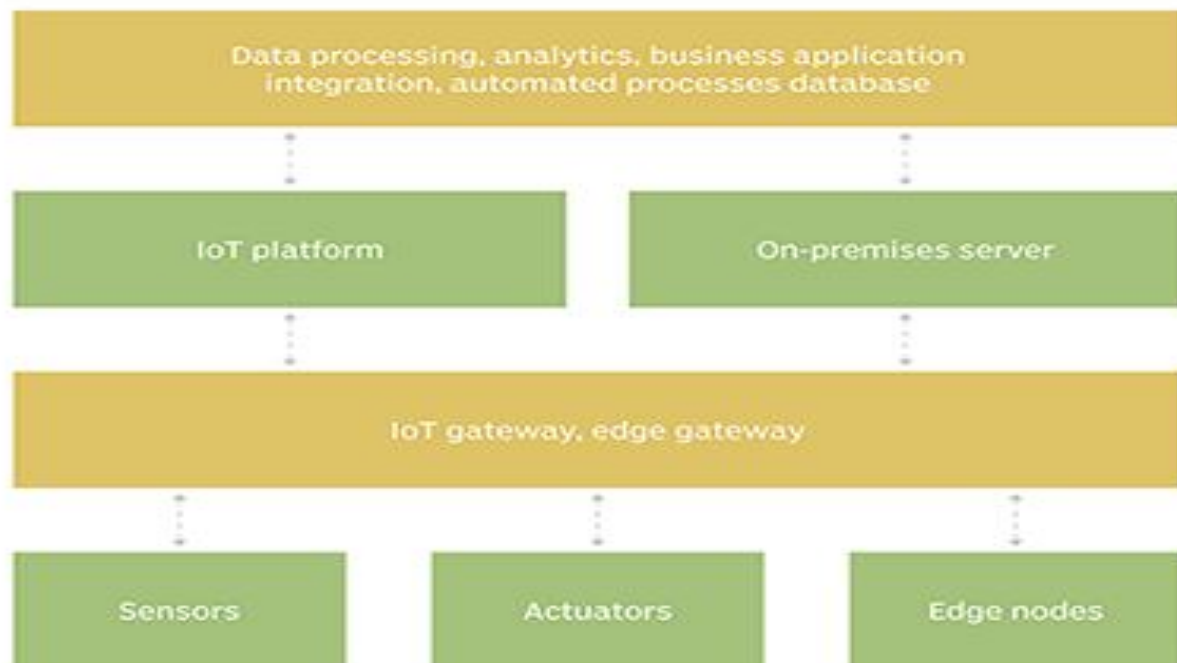
8. RFID

This stands for Radio Frequency ID. RFID tags are attached to machines across the infrastructure and they are used to identify and authenticate & track machine movements across the shop floor.

9. Cognitive Computing

This involves using Artificial Intelligence, Signal processing & Machine learning to enhance the productivity. Natural Language Processing, Data Mining are some of the different technology used in IIOT for making informed decisions.

IIoT infrastructure



In a typical IIOT infrastructure various components work together to create a synergistic structure.

The different components and their working are as shown above.

Sensors connected to different machinery send their data to an IIOT gateway. The gateway is responsible for providing a channel for communication.

Sensors data reaches the IOT platform which is an Industrial standard. The end user usually gets to see the final output in the form of the different data visualization format.

All kinds of data processing, analytics are done at the top layer of the infrastructure. The final output is also channelized through the same set up as shown above.

Manufacturing – One of the Largest Market for IIOT Applications

The Manufacturing industry the largest player in the IIOT space. Millions of Dollars are being spent on things such as software, hardware, connectivity and services.

Vendors in IIoT

There are large number of vendors with IIoT platforms, the snapshot below shows them:



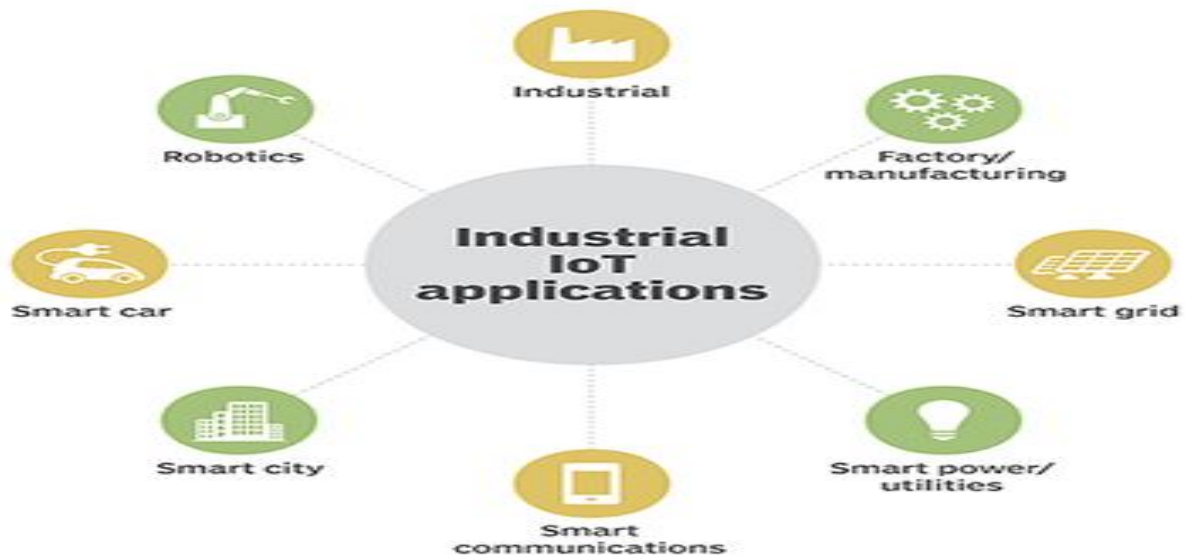
Top 5 IIoT Providers by Number of Case Studies

Company (# of case studies)	Signature IIoT Solution	Top Industries (# of case studies)	Top Enabled Capabilities
ptc (32)	thingworx	Healthcare (8) Machinery (6)	Data Acquisition Overall Equipment Effectiveness
CISCO (29)	Jasper	Automotive (8) Machinery (4)	Asset Tracking & Monitoring Infrastructure Access & Security
MOXA (17)	ThingsPro	Smart Grid (7) Renewable Energy (3)	Asset Tracking & Monitoring Remote Access & Control
ADVANTECH (15)	WISE-PaaS IIoT Software Platform	Construction (5) FMCG (4)	Remote Access & Control Energy Management
DIGI (14)	DIGI SMART SOLUTIONS	Agriculture (3) Renewable Energy (3)	Data Acquisition Environmental Health & Safety

Source: www.iotone.com

Accelerating the Industrial Internet of Things

A quick look at the different areas where IIOT is useful is as shown:



IV. SECURITY IN IIOT

IIOT is an upcoming technology and therefore its security challenges and issues are also presently in a state of infancy.

At the very heart the IIOT is the IOT, which again consists of networks, sensors, cloud computing, internet, actuators, mobile applications etc.

Therefore, the security issues surrounding these technologies will also form the crux of the IIOT security.

Security Challenges of the IIoT – A Perspective

- Interoperability between the different devices and protocols is a sensitive matter. This is because, there are so many diverse platforms available that security and weakness of one platform can impact the other just as easily
- The heart of IIOT lies in the use of sensors, and there are hundreds and thousands of sensors from various vendors easily available. Companies need to know that their data is secure. The spread of these sensors and other smart, connected devices has made security vulnerabilities a great concern.
- Industries / Factories are smartly linked in IIOT to enhance the productivity. The entry point to these huge machines used are the sensors. Malwares can be designed to take advantage of these sensors vulnerabilities and through them infect the machines themselves, thus halting the production itself.
- Cyber Physical systems are a conglomerate of various sub systems, therefore the weakness levels of each have to be carefully scrutinized. Trisis is one such malware that was designed to attack the cyber physical systems vulnerabilities.

- An example of the above is a Russian Power Station in Ukraine that was taken over by Hackers and shut down resulting in blackout all over the country.
- More Connectivity creates More Risks:- In the earlier days when only computers were connected to the internet, the risk levels were limited. But today with mobiles, sensors and other such devices always online the factor of risk has multiplied exponentially to great heights.
- The IIOT is still an emerging area, therefore there are no proper standards and regulations in place. Companies and vendors who want to quickly push their products in the market place go ahead and this carries the potential of risk along with it.
- Security patches are release regularly by vendors which has to be manually applied to IIOT devices, this is something that is not done regularly exposing the systems to great risk.
- One such example is the tool called as 'Shodan' which is used to identify the risks and vulnerabilities of devices and find out if they are open to attack.
- IOT devices like routers are equipped with default Usernames and Passwords. If these are not set properly, it obviously leads to compromises.
- The weakest link in the whole chain of the IIOT ecosystem can easily make a backdoor for the hackers to get in, thus sabotaging the system.

V. FINAL THOUGHTS

While it is fully agreed that IIOT is already changing the landscape of industries all over the world, it has to accepted with much care and curiosity.

The proliferation of vendors, the lack of standards, the urge to push products quickly in the market place all have aggravated the security situation.

My humble submission here is to definitely take all the precautions stated above and at the same time allow the technology to mature over time, while systematically rooting out the vulnerabilities.

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AN ANALYSIS OF CONSUMER'S PERCEPTION OF DIGITAL PAYMENT USAGE IN INDORE

Dr. Suhas Dhande¹ and Harsha S. Lalwani²Principal¹ and Assistant Professor², Chameli Devi Institute of Professional Studies, Indore**ABSTRACT**

The past few decades has seen incredible growth in the usage of internet and smart phone in India. Increasing use of internet, mobile penetration and government initiative such as Digital India are acting as catalyst which leads to incredible growth in use of digital payment. Digital payment defined as electronics transaction by consumers at made at point of sale (POS) for services and products either through internet banking or mobile banking using smart phone or card payment. Government initiatives such as demonetization and digital India have motivated consumers to move towards digital payments. The objective of this paper is to analyze the perception of consumer towards adoption of digital payments. Primary data was collected from 140 respondents in Indore. Frequency analysis was used to analyze the responses. Among the total demographic factor used in the study education had significant influence on usage of digital payment.

Keywords: Demonetization, Digital Payment

1. INTRODUCTION

The banking industry in specific is regularly reacting to changes in customer inclinations and needs, increasing competition from non-banking institutions, changes in demographic and social trends, information technology advances, channel strategies and change in government policies such as latest demonetization of Rs.500 and Rs.1000 currency and deregulations of the financial service sector.

Traditional banking was considered by physical decentralization, with branches spread around populated areas to give customers stress-free geographic access. Internet banking on the other hand provides a convenient, low-cost alternative to the traditional bank visit. The growth of internet banking has been driven by broadband availability as well as secured connections over the Internet. A crucial reason for the rise of the internet as a business mechanism during the past decade is that the Internet was not only designed with an intuitive, graphical, and simple to-use interface, but was also developed to provide information, foster awareness, and influence people's attitudes and behavior. Consequently, internet banking has transformed the nature of consumer interactions with banks, reducing the importance of physical locations and face to face interactions.

E-banking is a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone, etc. The concept and scope of e-banking is still evolving. It facilitates an effective payment and accounting system thereby enhancing the speed of delivery of banking services considerably. While E-banking has improved efficiency and convenience, it has also posed several challenges to the regulators and supervisors. Several initiatives taken by the government of India, as well as the Reserve Bank of India (RBI), have facilitated the development of E-banking in India.

Banking sector in India incorporated the information technology revolution way back in the 1980s. This revolution started with the computerization of bank branches, introduction of electronic clearing services (ECS), national electronic fund transfer (NEFT), real time gross settlement (RTGS), automatic teller machine (ATM), online banking and mobile banking.

The ongoing digital and technology revolution, led by increasing diffusion of smart phones and internet on mobile had revolutionized use of digital banking. With the increased 3G and 4G penetration even in the remote parts of the country, the internet network is rapidly expanding in our country.

Digital Banking basically encompasses an application of technology to confirm smooth end to end processing of banking transactions initiated by the customer ensuring maximum utility to the customer in terms of availability, usefulness and cost.

Digital Banking comprises all types of electronic transactions done for numerous purposes. They may include booking movie shows online, making an online buy, using e-commerce websites to do transactions online while purchasing any product, and using internet banking services to make payments via transfers like RTGS, NEFT transfers etc.

In the recent time, banks have used technology steadily to change their operational landscape. Core banking platforms have also given banks a strong launch pad to offer digital channel competencies. Almost all banks today are enthusiastically building out their online and mobile channel offerings. ATM deployments have

served large parts of the Indian locality. Internet and mobile banking have seen steady acceptance and adoption.

The evolution in internet and mobile adoption delivers new behavior for consumers to access banking services. New channels include websites, social media, mobile apps and others. Digital adoption as per RBI data, electronic transactions is growing day by day and transactions in paper are decreasing. Sophisticated applications have now become economically practicable as the influence of technology continues to advance. As technical hurdles disappear, it becomes necessary to create application that people are willing to use. Digital banking is one of the innovative technologies that have been introduced by the banking industry in this highly volatile technology savvy environment. Digital banking is on surge because of four trends that are likely to impact the growth of digital banking in our country such as:

➤ **India going digital**

India is rapidly progressing into a digital behemoth. Amplified smart phone penetration and internet access have ensured that Indian consumer is moving towards electronic transaction. As per BCG report India currently ranks second in the world with over one billion mobile subscriptions. Among these 240 million consumer use smartphones and this base is projected to increase to over 520 million by 2020. The National Optical Fiber Network (NOFN) initiative by Digital India is to provide broadband connectivity to cover 250,000 Gram Panchayats across rural India. While 70 percent of rural users currently access the internet from their mobile handsets, the initiative is expected to increase the adoption of data enabled devices in these areas.

➤ **Favorable regulatory environment**

To keep pace with the constant change in the technology and customers' expectation the Government and Regulator body of our country is regularly making changes in the legal requirements of banking regulations. Some of the essential regulatory steps that are currently enabling digital banking are:

- KYC relaxation for small transactions
- Aadhar making KYC easier
- Exemption from Two-Factor Authentication
- Unified Payments Interface (UPI)

➤ **Demonetization forced to move towards cashless economy**

As per the new policy of Government of demonetization of Rs.500 and Rs.1000 notes, it has become important for citizens of our country to move towards cashless economy so that we can easily fulfill are financial transaction easily and secondly support are government to formalize this policy. A large percentage of Indian population is still habituated to do cash transaction even on the online purchases thus spreading the idea of using digital medium for accepting payment and making payment is initially a tedious task. Nevertheless people are now with the advent of mobile and internet penetration have lately understood the convenience and ease of using electronic transaction just on click of a button.

➤ **Increased Customer Expectation**

Indian customers are now used to a superior experience owing to the popularity of e-commerce and are demanding a similar experience from their financial service providers as well.

The government's determined digital India programme is likely to bring in foremost improvements for the banking industry in particular, as it will reduce the use of paper in the form of cash, cheques, application forms, statements and credit memoranda. A report by Boston Consulting Group shows digitization can enhance the banking system's returns on asset by 0.3-0.4%, which can translate into potential to reduce interest rates for borrowers by 1-1.5%. Moreover, if customers are engaged with intuitive and useful digital payment interfaces, chances are they will keep up to 20% higher balance in their accounts.

Though consumers are enthusiastic in using digital mode for undertaking their financial transactions they still have concerns that discourage them to fully shift them from traditional banking to digital methods of banking. Which are enumerated as follows:-



Figure-1.1: Factors causing hindrance in shift from traditional banking to digital methods of banking

2. REVIEW OF LITERATURE

According to Dahlberg et.al (2008) doing payments through mobile phones has been in use for many years and is now set to explode. Doan (2014) suggested in their study that the adoption of mobile wallet among consumers in Finland is only at the beginning stages of the Innovation Decision Process. It also shows that consumers in Finland express positive attitudes toward mobile wallet. The research includes several findings which can benefit the stakeholders of mobile wallet.

According to Slozko and Pello (2015) Electronic payment systems are important mechanisms used by individual and organizations as a secured and convenient way of making payments over the internet and at the same time a gateway to technological advancement in the field of world economy.

Brijesh Sivathanu (2016) analyzed in their study that the behavioral intention to use and innovation resistance affect the usage of digital payment systems. The relation between the behavioral intention to use digital payment systems and the usage of digital payment systems is moderated by the stickiness to cash payments.

Singh (2017) highlighted in their study that the consumer perception of digital payment has a significant and positive impact on adoption of digital payment. Analysis indicated that there is no significant variance in consumer perception based on the demographic factors such as gender, age, profession and annual income of the patients. However education was found to significant influence for adoption of digital payment.

Vally and Divya (2018) suggested that the demonetization resulted in tremendous growth in digital payments. With the government initiative such as Digital India and increased use of mobile and internet are means to exponential growth in use of digital payment. This transformation towards digital payments benefits in more transparency in transactions which empowers the country's economy.

3. OBJECTIVE OF THE STUDY

- To determine the impact of customer's age on usage of digital payments.
- To analyze the impact of customer's education on usage of digital payments.
- To analyze the impact of customer's gender on usage of digital payments.

4. HYPOTHESIS

H01: there is no impact of customer's age on usage of digital payments.

H02: There is no impact of customer's education on usage of digital payments.

H03: There is no impact of customer's gender on usage of digital payments.

5. RESEARCH METHODOLOGY

The study is conducted to obtain data on adoption of digital payment system in Indore. The study is conducted in Indore. A sample size of 165 was selected using the convenience sampling. Out of which 140 were

responded. This represents a response rate of 85%. Structured questionnaires are used for collecting data. The responses from the respondents were analyzed using the simple percentage analysis.

DATA ANALYSIS AND INTERPRETATION

During the study it was analyzed that maximum usage of digital payment is done by customers of 41- 50 age group. Below table 3.1 is showing that 32.85% and 36.42% respondents were belonged to the age group of 31–40 and 41–50 years respectively. Only 10% respondents were below 21-30 years and 20.71% respondents were above 50 years.

Table-3.1: Age of the Respondents

Age of the Respondents (Years)	N	%
21-30	14	10
31-40	46	32.85
41-50	51	36.42
50 Above	29	20.71
Total	140	100

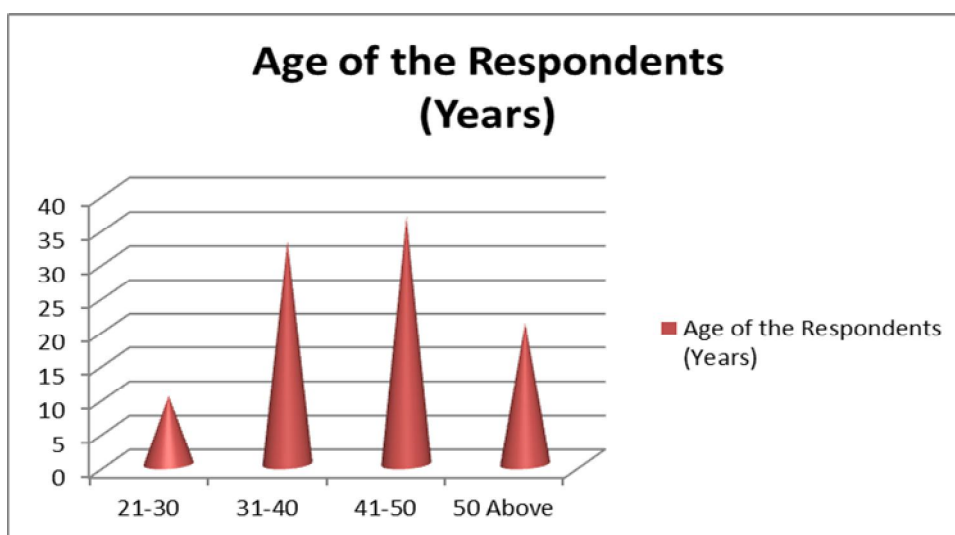


Figure-3.1: Age of the Respondents

As a part of study it was analyzed that educational level has impact on usage of digital payments. Below Table 3.2 and Figure 3.2 exhibit the same.

Table-3.2: Educational Qualification of the Respondents

Educational Qualification	N	%
Graduate	33	23.57
Post Graduate	50	35.71
Others	29	20.71
Total	140	100

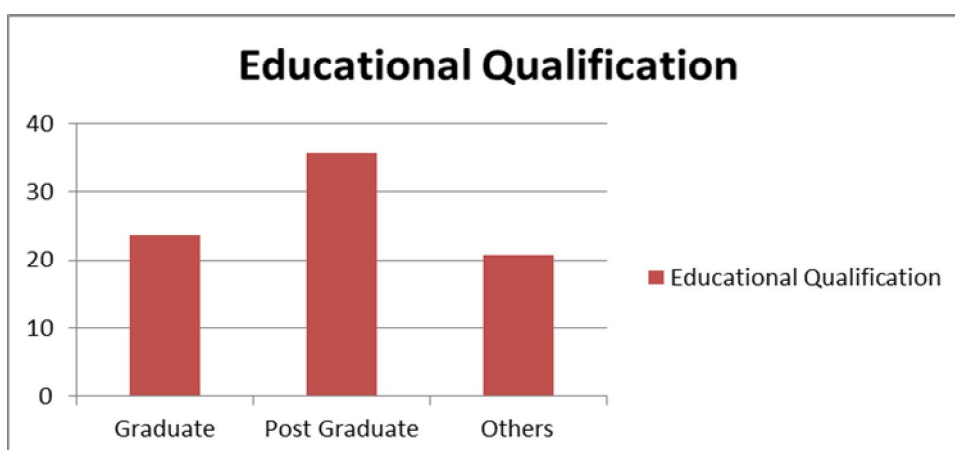


Figure-3.2: Educational Qualifications of the Respondents

Further it was also analyzed that maximum number of respondents were male that is 51.42% and percentage of female respondents was 48.57%. This is exhibited in Table 3.1 and Figure 3.1.

Table-3.3: Gender of the Respondents

Gender	N	%
Female	68	48.57
Male	72	51.42
	140	100

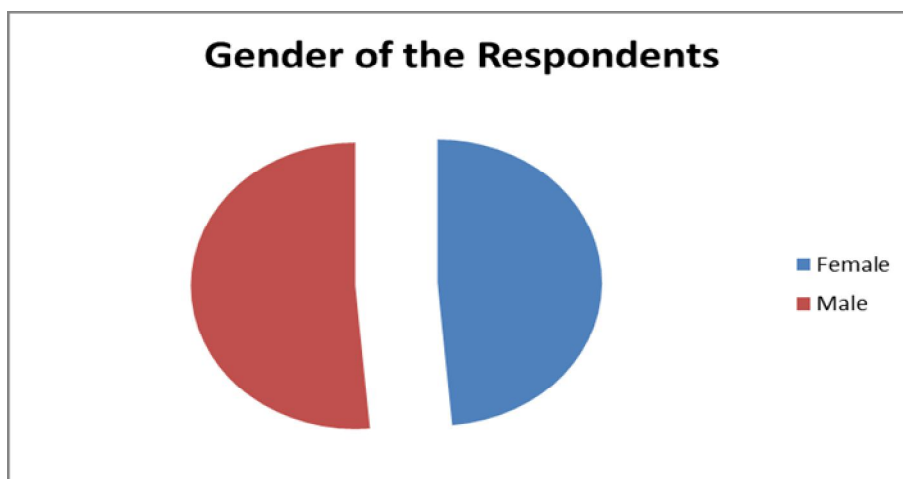


Table-3.3: Gender of the Respondents

FINDINGS OF THE STUDY

- According to the analysis of data of this study it is indicated that age of the respondent has a significant impact on the usage of digital payments thus HO1 is proved as insignificant.
- Further analysis also indicates that educational Qualification of the respondent has significant impact on usage of digital payment thus HO2 is also proved as insignificant.
- Finally it's analyzed through data that gender influence usage of digital payment. Hence HO3 is also proved as insignificant.

LIMITATION OF THE STUDY

The customer respondents were the single-source and the questionnaire was the single method. This bias is the area of concern. It is believed that customer would have been subject to social desirability bias when answering the questionnaire. The sample size consisted of 140 customers it is limited in generalization of the results as the sample may not be truly representative for all types of customers.

4. CONCLUSION

Traditionally, India has been a cash economy. Cash imparts itself to certain characteristics of universal acceptance. With no language barrier, simplicity of use and speed of payment due which Indian customers prefer dealing in cash and secondly they trust traditional banking for their other financial transactions. But in the current scenario where we are forced to move towards cashless economy as blessing in disguise because of demonetization we can take this as opportunity to explore the advantages and benefits of using digital methods of banking which will decrease the pressure of shortage of currency for few months till this policy gets full implementation. And in the long run we can also become a cashless economy wherein all the major financial transaction can be done by digital medium of course for this few structural changes as to be done by regulatory bodies. In summary, digital payment to succeed in India, it is imperative that enabling policy framework and infrastructure be put in place.

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ARTIFICIAL INTELLIGENCE: EMERGING TREND IN THE INDIAN EDUCATION SECTOR

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ABSTRACT

Technology is playing a pivotal role in the global educational sector. Digital technological tools have brought a change in the way students learn, giving them the opportunity to study anytime, anywhere. It promotes student learning and facilitates the development of lifelong skills such as communication, collaboration, creative thinking and knowledge construction. Various technology providers have introduced AI technology to enhance learning. Educational tools with AI features have attracted the attention for their potential to improve education quality and enhance the traditional teaching and learning methods. AI allows computers to perform tasks, which were conventionally thought to require human intelligence. This paper addresses the use of artificial intelligence in teaching and learning. It also discusses the challenges and opportunities for educational institutions in adopting these technologies for teaching, learning and administration.

Keywords: Artificial Intelligence, Education, Machine Learning, Intelligent Tutoring System, Apps

INTRODUCTION

Technological revolution has brought changes in industrial, financial, health and education sector to name a few. Using the Information and Communication Technology one can learn anytime, anywhere and improve their qualification and technical skills. An increasing number of students are learning using digital services, online courses, and mobile apps. “Artificial Intelligence” presents opportunities to complement and supplement human intelligence and enrich the way people live and work. AI technology is bringing changes for quicker and better development of society.

Artificial Intelligence uses Knowledge and techniques from the subjects like Mathematics, Statistics, Computer Science and domain-specific expertise to create models, software programs and tools which can undertake complex problems. Artificial Intelligence system learns from experience, uses large amount of data to train the system to identify the pattern in the data, solves complex problems, understands languages and its nuances and also creates perspectives.

Artificial intelligence is not new. Research in this subject has been taking place since the last 70 years; In 1950s, Alan Turing proposed a solution to the question of when a system designed by a human is ‘intelligent’? Turing proposed the imitation game, a test that involves the capacity of a human listener to make the distinction of a conversation with a machine or another human; if this distinction is not detected, we can admit that we have an intelligent system, or artificial intelligence (AI). In 1956 John McCarthy gave one of the first and most influential definitions: “The study [of artificial intelligence] is to proceed on the basis of the conjecture that every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it.” (Russell and Norvig 2010). The use of AI in the recent times led to large-scale deployment of intelligent applications for different areas and tasks. India with the second largest population and its growing economy has a significant stake in the AI revolution. In India research in the area of AI is taking place at the IITs, IIIT's, IISC and ISI.

AI IN EDUCATION SECTOR:

Schools and colleges are using technological tools to make teaching effective, to enhance the learning process, to develop interest in the subject. Today's educational technology has almost opened up a greater engagement between faculty and students and among students. It helps faculties to concentrate more on the learning environment of their students. AI-enabled tools such as robots can help examine a student's current level of understanding, identify his problem areas and offer recommendations just like a teacher, also AI provides personalized content according to the need and learning capability of the student. These tools are focused on content intelligence, behavioural recommendations and student intelligence and automation.

SOME AI POWERED EDUCATIONAL APPS:

- SCHOLAR is one of the first Intelligent Computer Assisted Instruction (ICAI) developed by University Research; it was designed to teach South American Geography. With SCHOLAR designers took a different approach by organising an associated knowledgebase containing information on geography, industries, population, trade and export and capitals. SCHOLAR provided the facility for both the computer systems and student to initiate interactions.

- Avatarion is a Swiss company that builds robots which provides absent children (on medical ground) a physical presence in class, so they can continue to participate in their learning with full video and audio connections to their hospital or home. The child uses a tablet to control the robot's movements, speech, send images to classmates and answer questions by raising the robot's hand and speaking through a connected microphone and speaker.
- Microsoft Office Lens and the Immersive Reader in OneNote and Word helps to increase the literacy levels. Office Lens is a free smartphone app that allows students or teachers to take a photo containing textual data and it is then sent to OneNote or Word where Optical Character Recognition (OCR) is performed by the Azure cloud. A research carried out in 2017 shows that the use of Immersive Reader and Learning Tools can significantly improve the reading and writing levels of students and increase equity to educational resources for all students.
- In an experiment, a professor at Georgia Tech institute created an AI-powered system to work as his teaching assistant to assist in a course taught by him. It interacted with the students just like a human teaching assistant. It assessed the assignments of the students for grading and answered their queries in natural language using email. The students could never realize during the entire semester that they were interacting with a system and not a human until they were informed by the professor himself.

AI IN INDIAN EDUCATION SECTOR

AI can be used to solve the problem of quality and accessibility issues in Indian education sector. When used effectively it augments and enhances the learning experience through personalised learning, automating the administrative tasks and predicting the need for student intervention to reduce dropout rates in schools and prescribe vocational training to students. AI is used to find the latest educational trends across the world and compile it subject wise for all categories of students. There are various companies working directly with educational institutions to enhance their educational tools. Many Companies are participating as investors and innovators.

Tutoring apps customize their lesson structures depending on the performance of the student. For example, the app Toppr uses the best practices in AI to ensure that there is increased engagement in the lesson plan that the student is interacting with. This app has produced toppers who relied on this AI based model. Zishaan Hayath Co-founder of Toppr says, at Toppr both Machine Learning and AI are used to map out a student's strength and weakness. Individual learning speeds and records are taken into consideration. These tests are designed to boost a child's confidence in areas that he/she can excel in and challenges them in areas where they are weak. This approach helps children remain motivated.

The company EduGorilla uses AI technology to analyse Big Data in the educational sector in India. It analysed data from 600,000 schools and 70,000 plus coaching centres to provide top quality results for Indian students. Students can rely on this app to have their questions answered.

With many industries aggressively investing in cognitive and AI solutions, global investments are forecast to achieve a compound annual growth rate (CAGR) of 50.1% to reach USD57.6 billion in 2021.

According to EdTechXGlobal, EdTech is becoming a global phenomenon so the market is projected to grow at 17.0% per annum, to USD 252 billion by 2020. India's digital learning market was valued at USD 2 billion in 2016 and is projected to grow at a CAGR of 30%, reaching USD 5.7 billion in 2020 as per estimates from Technopak. These EdTech investments mark a gain of 30% from 2016. one of India's leading EdTech startups Byju's raised USD 40 million from Tencent in July 2017, just four months after raising USD 30 million from Belgium-based Verlinvest. Among Byju's other investors include Sequoia Capital and The Chan Zuckerberg Foundation.

APPLICATIONS OF AI IN CLASSROOMS

- A large number of school's in remote villages in India do not have separate classrooms and teachers for different grades. This definitely poses a challenge to a teacher who has to teach different age group children with different level of learning capacity at the same time in the classroom. Thus, it leads to poor learning, high dropout rate. AI programs commonly referred as Intelligent Tutoring Systems (ITS) or adaptive tutors engage the students, answer their questions and provide feedback. AI technologies may help in personalized and blended learning. AI technologies that are capable of imparting quality education to India's linguistically diverse population could prove very useful.
- Using AI techniques educational Institutions and teachers can create highly customised curriculum. ITS and adaptive tutor tailor learning material that caters to the students need including dyslexic and terminally ill students.

- AI can perform routine tasks such as taking attendance, grading assignments and generating test questions, AI tools can be used for assessment as it adjusts the difficulty of successive questions based on the accuracy of the student's answers. Machine learning algorithms identify patterns using datasets and provide insights and assist teachers pinpoint where students are struggling. It allows real-time feedback on student performance to help teachers appropriately guide the students.
- Bots are being used to assess the subjective answer given by the students appearing in GRE test administered by ETS (ETS, 2018). Earlier the narrative answers were being assessed by two experts to reduce the possibility of any error whereas ETS has now replaced one of the two human experts by a bot.
- AI can create demand for education professionals who can design and implement personalized learning programs.
- Learning is meaningful when the learners co-create and develop their own knowledge, it will facilitate the development of life long skills such as collaboration, creative thinking and knowledge construction.
- Implementation of AI must be preceded by efforts to digitise records of teacher performance, student performance, and curriculum.

DRAW BACKS

- Its curricula are rather inflexible due to technical challenges in accommodating user requirement, feedback, content changes.
- There is uncertainty about the cost effectiveness of the technology.
- It might reduce teaching staff in favour of AI alternatives.
- There might be issues related to AI in schools such as internet access and student's data privacy. Third parties can access and use student's personal information.
- If AI technologies are adopted on a massive scale, teachers face the task of not only learning to use specific products but also integrate a range of AI technologies into their lessons.
- Choosing products can be a time and energy consuming effort involving teachers, administrator's, IT staff.
- There is a possibility of loss of jobs. As per the available reports the loss of jobs during the next 10-20 years is estimated to be 47% in the US, 35% in the UK, 49% in Japan, 40% in Australia and 54% in the EU. Even if the number of employees laid off is small, we have to find ways to upgrade their technical skills and need to explore the ways to retrain them .
- Parents and Education providers may find it difficult to trust AI technologies used to make decisions about students learning.
- The most cited risk which several personalities like Stephen Hawking, Elon Musk, etc. have raised this issue from time to time is the risk associated with AI is the existential threat. It has been argued that AI development may lead to creation of systems which can destroy humanity itself. Such a situation may arise when a system is created which can't be controlled by humans. At the same time, several thinkers have expressed their concern that this expected risk may stop the development of AI applications and thus depriving the people of the benefits of AI. In order to highlight the need of research on the safety issues, a large number of scientists have come together and signed an open letter which calls for a balance by advocating development of new applications of AI while avoiding pitfalls.

CONCLUSION

"Artificial Intelligence" presents opportunities to complement and supplement human intelligence and enrich the way people live and work. AI technology is bringing changes for quicker and better impact on humans. AI is well placed to provide sophisticated pedagogical models and target children's academic weaknesses. There is tremendous amount of information available today and AI is one such tool which if used effectively can bring about transformation in education.

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IMPACT OF BELOW-THE-LINE PROMOTIONAL ACTIVITIES ON CONSUMER'S BUYING BEHAVIOUR AT SHOPPING MALLS IN PUNE CITY

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ABSTRACT

Shopping Malls have been one of the most rapid growing markets in the world for the last decade; to stay competitive, mall retailers use effective sales promotions tools and that become an important technique for marketers to stimulate client shopping for behavior towards getting towards any product. The aim of this study is to determine the impact of the most used tools of below –the-line promotion in retail sector such as: coupons, sample, price discount, free gifts, exchange offers, in-store discounts and buy one get one free on consumer buying behavior. Shopping malls are increasingly using below-the-line promotional activities to differentiate the shopping mall from competitors through image or brand communication, to increase traffic (visits) and to stimulate merchandise purchases, in progressively competitive surrounding characterized by over capability and declining customers. The result shows there has been a significant impact posed by below-the-line promotional activities of shopping malls in influencing the consumers' buying behavior

Keywords: Below-the-line, Promotional activities, Consumer buying behaviour, shopping malls.

INTRODUCTION

Below –the –line Promotion could be a tool that's employed by the retailers or manufacturer to ask shoppers to buy additional. The results that we have a tendency to get by these promotional tools are the employment of high quantity of reserve, tantalizing tons of latest customers and extra increase in sales. All the promoting activities are joined with these promotions that offer outcome in growing client purchases and up intermediaries or retailer's potency and co-operation. The rising interest within the use of those promotions as a promoting strategy has resulted in an exceedingly stunning growth of analysis during this space. as an example, there's a large body of literature on client response thanks to advertisements. The increasing interest within the use of below-the –line promotional tools as a promoting plan of action has resulted in an uncommon growth of analysis during this space. one in all this promotion tools edges is that it will encourage the shoppers to assume and judge whole and get opportunities. Hence, differing kinds of below –the –line promotion tools and promotion methods are utilized by the shopping precinct retailers in order that they'll apprehend client initial alternative and boost their sales. in line with Gilbert (1999), apart from value alteration, coupons or refund given by the retailers yet as alternative promoting tools like free sample and obtain-one-get-one-free were found to be causing client buy additional then they expect. Completely different sorts of promotion ways are employed by the sellers to draw in the purchasers and increase their sales. the sooner studies has shows that framing of advertising messages and presentation of value data influence the consumer's views regarding costs and their disposition to buy (Das, 1992; Sinha and Smith, 2000 and Sinha et al., 1999).

The core purpose of this analysis paper is to review the impact of various below-the-line promotion tools on client shopping for behaviour. Hence, the analysis on these promotional tools is definitely important to acknowledge the foremost influencing tools to contend with its competitors. the aim of analysis is to review closely the fondness of shoppers on a spread of below-the –line promotional tools. the same old below-the-line promotion tools includes samples, value discounts, buy-one-get-one-free, Coupons, in-pack premiums, value offs and then on. However during this study, we'll discuss the impact of obtain one get one free, value discounts, coupons and Demonstrations, future Disc, on the patron shopping for behaviour.

REVIEW OF LITERATURE

HARDY (1992), in his study “Consumer satisfaction towards shopping centre” since the early 1992 the need for effective marketing of shopping centre has been brought into sharp focus. However many studies have pointed out the noticeable lack of marketing orientation among shopping centres.

Chandon, Wansink, and Laurent (2000) indicated that marketing is also attractive for well promotion prone shoppers for reasons on the far side worth savings. Many shoppers modification brands so they might receive bigger deals that replicate and build up their sensible customer self-perception, and these consumers are favorably promotion prone, these consumers make a trial to undertake a brand new product or service that are promoted.

The term sale promotion refers to many forms of commerce incentives and strategies cotyloidal to yield immediate sales effects (Totten & Block, 1994).

Parsons (2003) [2] in his paper analyzed common promotional activities employed by shopping mall marketers, which were ranked by a sample of customers on their likelihood of encouraging increases in the two key performance indicators employed by searching malls – sales and visits. Whilst mall-wide sales square measures the popular promotion, a combination of general entertainment and price-based promotions were found to be a strong alternative way to encourage visits and spending

According to Joncos (1990) sales promotion is an effective way of competitive retaliation rather than marketing activities.

Belch and Belch (1996) outline commercials as sales promotions as direct encouragements give a further stimulant for the products to be oversized distributed in an in an exceedingly short amount of your time. Brassington and Pettitt (2000) give a brand new definition for marketing as “a vary selling |of promoting” techniques designed at intervals a strategic marketing framework to feature additional worth to a product or service over and on top of the “Normal” giving so as to realize specific sales and promoting objectives. This additional worth is also a brief term military science nature or it's going to be a part of a longer-term franchise-building program”.

According to Cotton and Babb (1978) another trend of sales promotion used to increase consumer purchases which known as in-store promotion, it is more effective during the period when a deal is going on. Some researchers have totally different views that promotion is a chic tool and it's going to have an effect on negatively on retailers profits (Walters and Mackenzie, 1988).

OBJECTIVES OF THE STUDY

The following are the objectives of the study

- To analyze the perception of consumers in purchasing at shopping malls.
- To analyze the below-the –line promotional tools and their impact on motivating consumer buying behavior and purchase decision of consumers.

RESEARCH METHODOLOGY

The research, which is used in this study, is descriptive in its nature. Research that explains the present situation instead of interpreting and making judgments is descriptive research (Creswell, 1994). The core purpose of descriptive analysis is to establishing the accurateness of developed hypothesis that replicate this position. This kind of analysis provides data regarding this situation and consider past or present for an instance in an exceedingly community quality of life or client angle toward any marketing activity (Kumar, 2005). The pilot study has been done before conducting the particular analysis. The core purpose of pilot analysis was to calculate the reliableness of the form things that were used during this analysis. A total 150 Customers were selected to make sure that items of the questionnaire were understandable without difficulty by the person who answers that questionnaire. Throughout this study the researcher self-assurance has developed and she make sure that questionnaire that was used was healthy for this research.

SAMPLE AND DATA ANALYSIS

About one hundred and fifty respondents were asked to participate in self-administrative study so as to assemble the information for understanding the condition regarding the patron shopping for behavior. The people for the current research are common people, students or any customers who have experience in buying some kind of products. The non-probability sampling technique utilizes in the current analysis. The non-probability sampling is very ease because in this sampling technique information can be collecting from the relevant sample or the unit of the study that are conveniently available (Zikmund, 1997). The convenience sampling is used for collecting a large number of fulfilled surveys quickly and inside limited cost. The questionnaire contains two main portions. The first half contains the background of an individual who answers the questionnaire; the second half shows the consciousness with respects to a range of promotion tools and buying behaviour of persons who answer the questionnaire. To analyze the data the Statistical Package for Social Science (SPSS) version 20.0 was used.

Hypothesis: Customers prefer “Buy one get one” over other below - the - line promotional tools for motivating customers to buy more in shopping mall.

DISCUSSION

The major objective of this research was to study the impact of different below-the-line promotion techniques, which can affect the consumer buying behavior, and it can also be used by the mall retailers to increase their

sales and improve their business. For this purpose, we have taken seven promotional tools and additional Mall Facilities, which can affect the consumer buying behavior. These tools are free sample, buy-one- get-one-free, discount offers, exchange offers, sales contests, demonstrations and coupons. Additional Mall Facilities that can be used to measure the buying behavior of the consumer. The result of this learning gave some vital information concerning impact of promotion tools client shopping for behaviour. With respect to customer proneness to below-the-line promotions, research found that additional mall facilities and Buy-One-Get-One-Free and discount offers played the greatest significant role in developing consumer-buying behavior. The above results show that, buy-one-get-one-free has significant relationship with the buying behavior (Cochran's $Q = 616.300$, $p = 0.000$). Additional mall facilities also has an important factor which has a strong positive impact on buying behavior (Cochran's $Q = 199.487^a$, $p = 0.000$).

The result of this study also additionally explained that buy-one-get-one-free is considerably joined with client shopping for behaviour, therefore the more the product has included at no extra cost, than it can influence customers to purchase products for test. It revealed that advertising instrument such as buy-one-get-one-free can appeal and persuade customer's favorable attitude on buying behavior. Therefore, it can be explained that buy-one-get-one-free is one of the essential element persuading buying behavior of customers, particularly in the repurchase of new product. The results of this research showed that there is major association at 5% significance level among coupons and consumer buying behavior, awareness with coupons has significant positive effects on customer attitudes toward coupons. Another main important factor, which is shown in this research, is additional facilities given by mall retailers such as variety of brands, store services, store cleanliness and facilities of the store. The results of this study estimate that the variety of brand and store cleanliness is also significant relationship with buying behavior of consumer. In this research, shoppers were inquired about shops likings that contain interior decoration of shops, music, brightness, shopping in large retail shops and when the shopping mall is nicely in odors. The result of this study shows that consumers get pleasure from looking in and sitting with music and in large retail outlet in addition as once the shopping precinct is bright lightening. The cleanliness has significant impact on consumer buying behavior. Therefore, we can say that additional facilities of mall retailers are very important during shopping by the consumers.

CONCLUSION

Below-the-line promotional activities play an essential role for the mall retailers in the Shopping malls Below-the-line Promotion generates large revenues and by sales can be increased. The overall conclusion of this research is we found positive customers attitude towards various below-the-line promotion tools on buying behavior. The study confirmed that consumers buying behavior can be motivated through various kinds of elements, including promotion techniques such as coupons, buy-one-get-one-free and additional mall facilities. Furthermore, the structure offers new visions to understand that how different consumers respond to numerous below-the-line promotion tools offered by mall retailers and their impacts on consumers buying behavior, which may in order to use perfect promoting strategies and promotional tools to promote products.

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DEMONETIZATION AND ITS IMPACT ON INDIAN ECONOMY

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ABSTRACT

Demonetization is a policy passed to revoke the currency rolling in an economy. On 8th November 2016, PM Narendra Modi made an unscheduled announcement regarding stoppage of Rs. 500 and Rs. 1000 old notes and terming it to be invalid after midnight on the same day. This policy was passed by the PM with an objective to control black money and fake currency which had become the root for corruption and terror funding. Another agenda behind demonetization was to initiate and further encourage digital economy. Initially this decision had face some criticism by the common people and the economy as a whole in short run, but eventually demonetization achieved its objectives to an extent. This research is secondary in nature and the objective is to know the necessity and impact of demonetization on Indian economy.

Keywords: Demonetization, Black money, Gross Domestic Product (GDP), Fake currency, Digital economy.

INTRODUCTION

Demonetization refers to withdrawal of coins, note or precious metal from use as the legal tender. Demonetization takes place when there has to be change in the currency of a country. In India demonetization move was taken by the honorable Prime Minister Mr. Narendra Modi. Under economics terms, it acts as one of the tools to counterfeit black money and fake currency in the hands of the Government.

8th November 2016, was the day when Indian Government took a bold policy decision of demonetizing Rs. 500 and Rs. 1000 notes. This unscheduled announcement was televised at 20:15 (IST) by Prime Minister Mr. Narendra Modi stating that these notes will be held invalid after the midnight on the same day. On contrary, PM also announced that Rs. 500 and Rs. 1,000 notes will be replaced by new Rs. 500 and Rs. 2,000 notes. The main purpose of demonetization was to eradicate black money, corruption, fake currency and even bring cashless system in India. The fake currency and black money is responsible for high inflation and terrorism.

This move taken by the Indian Government faced criticism from opposition parties which resulted into debate in the houses of parliament causing protests against the current government. On other hand it also received a warm welcome from several industrialists, international commentators, digital payment companies and the public at large. Some call this move as surgical strike and some collateral damage.

This was not the first time when the Indian Government took such a bold and unusual step of exercising demonetization in India, it was also carried out in 1946 i.e. just before independence and post-independence in 1978. This exercise is also carried out by several countries, namely, Zimbabwe, USSR, Nigeria and others.

OBJECTIVE

- To study why demonetization is necessary in any economy
- To study the process of demonetization
- To study the post demonetization effect on economy

RESEARCH METHODOLOGY

The data collected for the research is secondary in nature. The data has been collected from various journals, articles, etc. published in high impact journals. The objective is to understand the necessity of demonetization.

RATIONALE OF STUDY

It was claimed by different governments that demonetization has shown negative impacts on the economy and it's not been proved fruitful as per the respective objectives which were set by the governments. According to our research, we want to emphasize that though people had to face problem for short duration, but ultimately for longer time it has shown positive effects and also benefited the economy. The benefits include control of the black money and fake currency to an extent which eventually helped in controlling corruption and also initializing digital cashless system in the Indian economy.

NEED FOR DEMONETIZATION

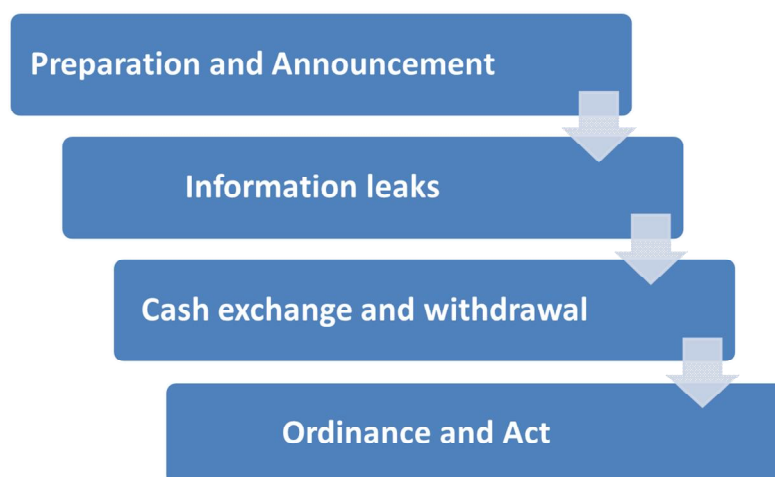
It is mentioned in the Constitution of India constructed by Bharatratna Dr. Babasaheb Ambedkar suggesting that demonetization should be done in every nation once in 10-15 years. Demonetization is done in order to eradicate corruption, black money, fake currency and enhancing the banking system in the country. Last

demonetization took place in India in 1978 and this move was overdue since long time. The need for demonetization in India was to bring in formalization, cashless system, attack on black money, no corruption state and also a blow to terrorism. S. Gurumurthy, a well-known politician and economic analyst from Chennai, was a long time crusader against black money wrote about the evil and suggested solutions over this issue for over a decade. The Gross Domestic Product (GDP) compared to the growth of the cash economy was less than 10% until 2001, now it is approximately 12% of GDP. According to the study the cash to GDP ratio has increased which actually must go down. This also facilitated the growth in high denomination currency to be great as 87%. Studies found that almost 50% of the transactions are done in cash in India which is termed as an unorganized economy. 90% of the employment is assigned to an economy which is largely driven by cash which has eventually resulted in transactions in real estate, huge cash hoardings. This distortion in the economy is termed as the wealth effect. The terror funding would also be ejected with the help of demonetization because the counterfeit currency was done in Rs. 500 and Rs. 1,000 notes which will result in difficulty in depositing their funds in the economy. People having black money hoard it with them in big denominations and this move will abolish black money from the economy as the owners won't be able to deposit the same in the banks as they don't have the record of the income and the income tax return filed with them. The demonetization policy was also passed to initiate the cashless system and growth in digital economy.

EXPECTED BENEFITS

- Removal of black money.
- Corruption money will become worthless as there would be no explanation of the source.
- Fiscal benefit for Government.
- Fake currency which results in terrorist funding can also be tracked.
- Introduction of cashless system which will result in recording each and every transactions in white.
- If exercise of demonetization successfully accomplished might mitigate inflation bringing purchase of goods and services to the reach of common man.

PROCESS OF DEMONETIZATION



1. Preparation and Announcement

The plan of demonetizing Rs. 500 and Rs. 1,000 bank notes was initiated and kept confidential for six to eight months before it was announced. A report was formulated by the State Bank of India on April 2016 to analyze the different possible strategy and the effects of demonetization. In May 2016, the Reserve Bank of India had started preparing for the new Rs. 2,000 notes and the design was approved in August 2016. Later the printing was started in October 2016 and then the Union Cabinet was informed by Indian Prime Minister Narendra Modi in the evening in a meeting. Later an unscheduled announcement was made at 20:15 pm stating that the old notes of Rs. 500 and Rs. 1,000 notes will stand invalid post midnight on the same day and also declared the introduction of the new Rs. 500 and Rs. 2,000 notes in exchange for the demonetized notes.

2. Information leaks

Big and well known tycoons of the country stated that they were already informed about the demonetization and were warned to convert their money into the smaller denominations and then later they denied the comments.

3. Cash exchange and withdrawal

The Reserve Bank of India did stipulate the time of exchanging the denominations within a period of 50 days until 30th December 2016. The banknotes were allowed for exchange at the bank counter of all the banks. In this, the limit for exchange of notes was maintained i.e. from 8th to 13th November of Rs. 4,000 which was further increased to Rs. 4,500 from 14th to 17th November and then the limit was reduced to Rs. 2,000 from 18th to 25th November. International airports also facilitated exchange amounting to Rs. 5,000 per person. Cash withdrawals were limited to amount of Rs. 10,000 per day and Rs. 20,000 per week which was increased to Rs. 24,000 from 14th November 2016. Further, RBI increased the limit of Rs. 24,000 to Rs. 50,000 on 20th February 2017 then removing all withdrawal limits from 13th March 2017 on all Saving Bank Account.

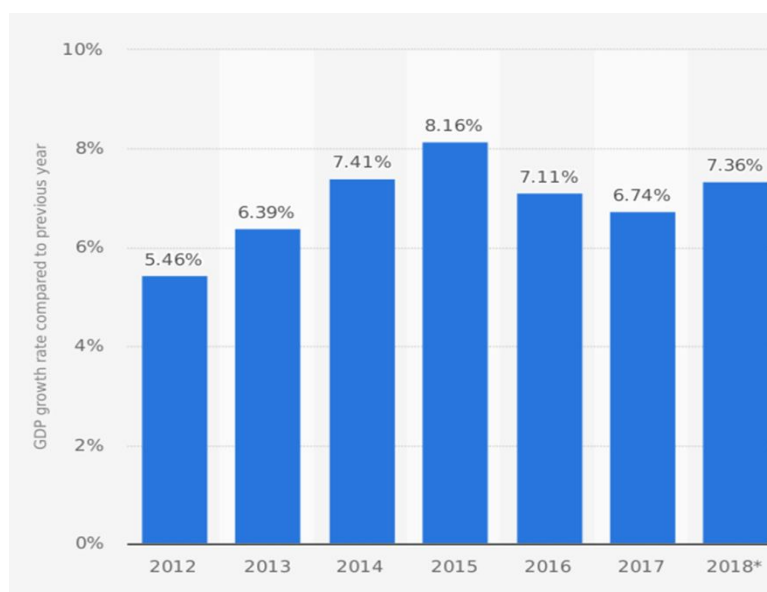
4. Ordinance and Act

The Specified Bank Notes (Cessation of Liabilities) Ordinance, 2016 was passed on 28th December 2016. This ordinance was passed to end the liability of government for demonetization of banknotes. It had also imposed some fine on the people carrying out transactions with the old notes after 8th November 2016 or even holding ten of them even after 30th December 2016. It allowed the exchange of old notes for new to the people who had been outside India between 9th November 2016 to 30th December 2016. The Specified Bank Notes (Cessation of Liabilities) Act, 2017 was notified on 1 March 2017, replacing the ordinance.

IMPACT OF DEMONETIZATION

The impact of demonetization is felt by every citizen of India. Demonetization can be called as an exercise of money that has some short term as well as long term affects on each level of various sectors. It is logical to classify the impact on black money by considering better tax compliance that has also lead to raise the Tax to GDP ratio and improved tax collection. It was also predicted by experts that the government may also get some headroom to reduce the income tax rates and that was proven right in the recent 2019 interim budget. Also considering real estate market, there has been excessive use of cash due to large cash transactions in areas such as purchase of land and housing property where the prices get pushed up artificially. Demonetization is looked up as a check on real estate sector where prices are pushed up that leads to reducing the availability of affordable housing to the middle class and poor. This as an awareness against black money and deception methods is an intangible positive effect of demonetization.

Talking about impact on GDP of India, the two denominations i.e. 500 and 1000 rupee notes consisted of 84% of the currency of India and was well predicted its adverse affect on GDP growth rate. India lost its highest growth rate status that directly affected the construction and financial sectors. It can be said that demonetization impact was quite obstructive on the GDP growth rate.



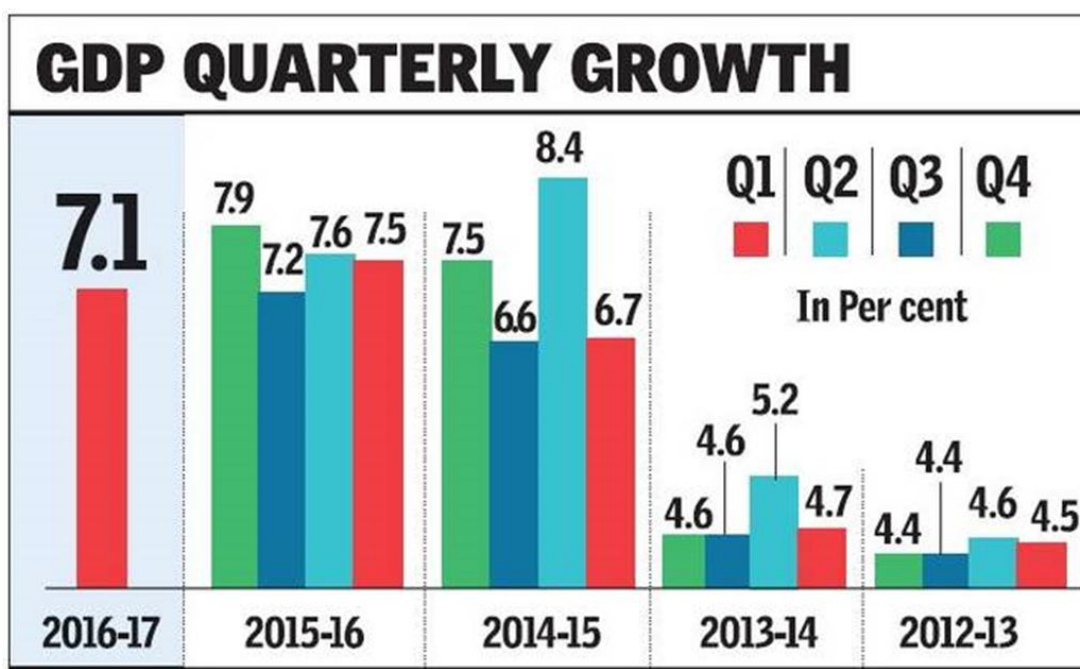
Demonetization has slow down the move of fake currency in the Indian markets and aimed at drawing out all the fake notes of Rs. 500 and Rs. 1000. This has drastically affected the funding of terror groups and has become comparatively easy for the government to track the transactions that takes place in the economy.

Initially, during the hit of demonetization, it was difficult to accept the demonetized currency by the co-operative banks and availability of new notes was insufficient. This lead to tremendous chaos and confusion among the people in India.

Increase in banks lending money for startups and small scale businesses has given a positive push to the entrepreneurs encouraging the business sector and bank sector growth as well.

Another positive impact was seen in the growth of digital economy as absence of cash has lead to usage of cheques and account transfer for transactions. Including local vendors, people had updated to virtual wallets like Paytm that allows electronic transfer of money. Experts said that the government was looking up to growth towards digital economy where the transactions are being recorded and the markets have more of white money which might increase the government's tax revenue. It is of vital requirement to not only reduce corruption but also to create an electronic base for money transactions which will help in bringing transparency in the financial transactions of individuals and organizations thereby constraining corruption, criminal proceeds, money laundering and the finance of terrorism.

Overall it has both positives and negatives which had some short term affects and long term affects as well in parameters like black money, GDP rate, fake currency, construction and financial sector, bank sector, digital economy and the whole economy.



Source: Ministry of Statistics & Programme Implementation

CONCLUSION

This research had led to study the importance of demonetization with respect to GDP, fake currency, black money, corruption and digital economy. Some achievements of set objectives of demonetization includes corruption money and deceiving work been identified to an extent as there is no explanation of the source, black money in the process of elimination and revenue benefits to the government. Also steep reduction in the circulation of fake currency was achieved as more cashless systems for transactions leading to the growth of digital economy took place. After this study it can be shown that demonetization is necessary for every economy at least once in 10 to 15 years laid down by the constitution of India.

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THE DOMAINS OF STARTUP ECOSYSTEM: IS THE FOCAL POINT, THE CUSTOMER OR THE IDEA?

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ABSTRACT

At recent times there is increase in interest towards startup ecosystems due to the need for high-growth firms and their significant contribution to new job creation and due to overall increased interest towards startups and “glocalization” of entrepreneurship. There is a need felt for researchers and policy makers to unravel the complexities of startup ecosystem, as innovation and entrepreneurship are very important means for delivering sustainable economic futures. Researchers are trying to understand the features and traits of the entrepreneurial ecosystem concept, analyzing the inter connectedness networks, systems and in framing sustainable environment for innovation and entrepreneurship. Though there are number of static models on entrepreneurship ecosystem, there is need to understand the dynamics of startup ecosystem and its component. This study aims to explore the various models of ecosystem which has built around the customers and has proposed a new model- Domains of startup ecosystem which is focused on problem, an innovative idea and the visionary entrepreneur.

Keywords: Startups, Startup ecosystem, Innovative Idea, Visionary Entrepreneur

1.1 INTRODUCTION

The Indian startup eco system has emerged quite recently. The situation post-liberalization of our Indian economy in 1995-1996, with more youngsters moving to the US and Europe as IT Professionals made India to gain a lot of experience and knowledge. Since the millennium there has been a conscious attempt to start new ventures. A startup to succeed needs an appropriate ecosystem which can induce adequate funds for the growth of startups, the favorable government policies to create an environment of ease of doing business, the location, easy availability of essential services like office space, supplies, telecom connectivity etc. and necessary mentoring that can provide strategic advice to start a scalable business. A Startup Ecosystem comprises of entrepreneurs, various kinds of financial and non-financial support mechanism such as debt finance, equity investments and grants, support from mentors, incubators, accelerators and technical experts. It also includes the startup policies and initiatives framed by the various central and state government, the academic and research institutions and other organizations that impacts startups in one way or the other.

1.2 Startup Ecosystem and its framework

There is increase interest towards startup ecosystems due to the need for high-growth firms and their significant contribution to new job creation (Birch et al. 1993, Sohl 1999, Shane 2009) and due to overall increased interest towards startups and “glocalization” of entrepreneurship (Sipola, 2018). Daniel et al (2018) felt the need for researchers and policy makers to unravel the complexities of entrepreneurial ecosystem, as innovation and entrepreneurship are very important means for delivering sustainable economic futures. The concept of business ecosystem was first coined by Moore, (1993) and he argued that business develops through such interactions between suppliers, financiers and customers and does not evolve in isolation (Moore, 1996). It is not common to have a complete startup ecosystem which has all the necessary economic players locally present (cf. Eliasson 2003). According to the existing research on start-ups, there are various start-up models and ecosystems, some of the models describe the business ecosystem based on individual components using a static approach, but very few explain the entire ecosystem’s impact on start-ups using the dynamic approach. Hence there is increased need to understand the dynamic flow and interactions in the ecosystem.

1.3 Conceptual Models of Ecosystem

A. Model of interactions among environmental factors and entrepreneurial events (1996)

Spilling (1996) states that the framework of entrepreneurial system is a complex and diverse interactions between actors, roles and environmental factors to determine the entrepreneurial performance of a region. Though the various actors, roles, business structure, socio- cultural factors, the economic cycle, entrepreneurial climate constitute the important components of entrepreneurial system, it is the changes in the environmental events that triggers all other factors and creates an impact in the entrepreneurship ecosystem.

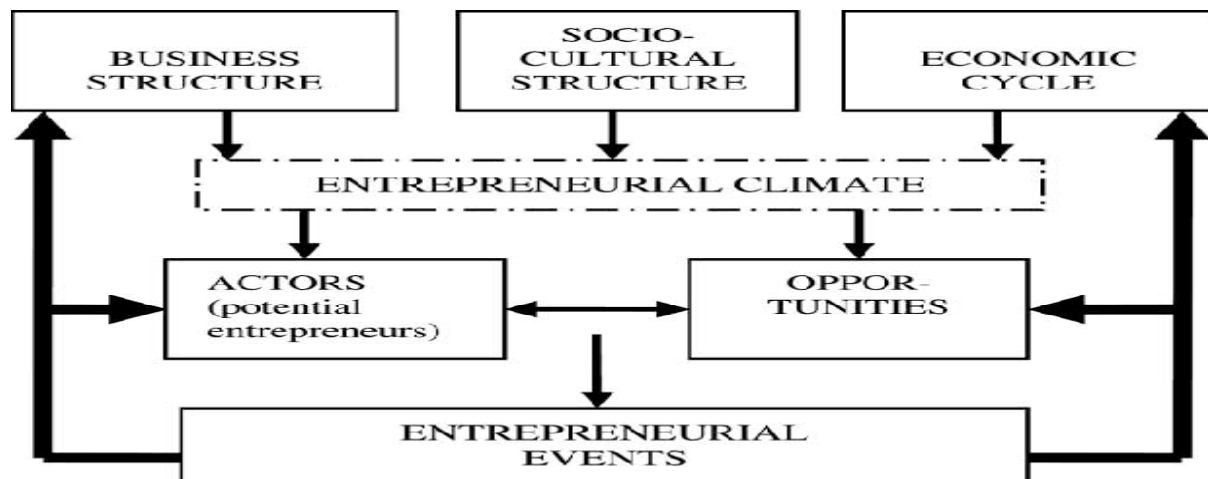


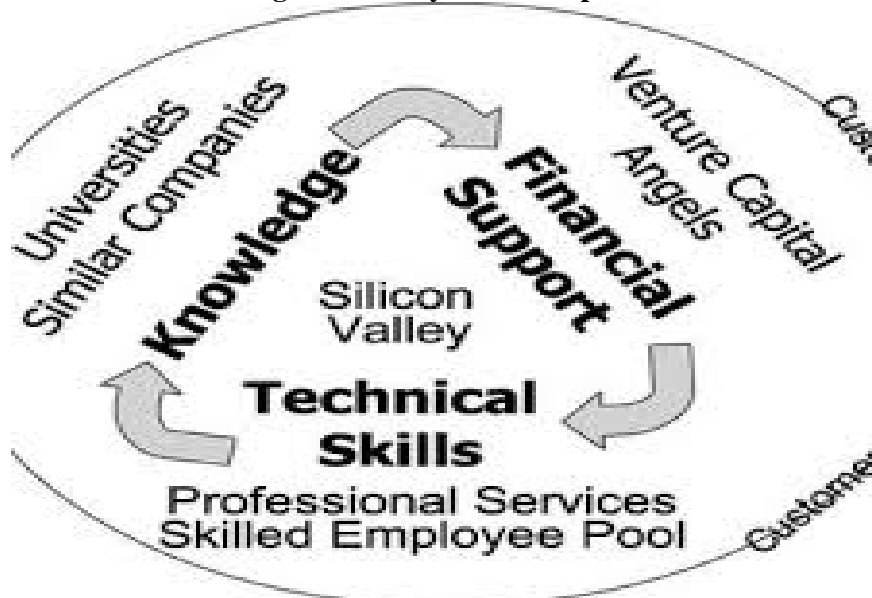
Fig. 1. Model for the interaction between environmental factors and entrepreneurial events

Source: Based on SPILLING (1996), p. 93

B. Zacharakies et al 2003 – Ecosystem Perspectives

Zacharakies et al. (2003) stated that, every industry is built upon an “ecosystem” that requires knowledge, technical skills, and financial support. They proposed an “ecosystem perspective” to investigate the development of the internet sector. The research the technological advancement in the internet sector due to booming of software firms, enhanced internet infrastructure, growth of internet service providers, advancement in hardware and emergence of e-commerce companies which foresights the technological innovations happening around the world. Their research suggested that different geographic regions possess different ecosystem qualities that benefit some internet sectors and not others. As a static view, it ignores the other most important stakeholders, their interactions and interconnections.

Figure-2: Ecosystem Perceptive



Source: The development of venture-capital-backed internet companies: An ecosystem perspective, Zacharkies et al (2003)

C. Daniel Isenberg’s Domains of the Entrepreneurship Ecosystem (2010)

Isenberg’s complex and dynamic entrepreneurship ecosystem represents the six interactive domains which thrives the self-sustaining entrepreneurship such as finance, culture, human capital, markets, policy, and supports. Isenberg’s entrepreneurship ecosystem is characterized by multidirectional and high order interconnections and interactions. There is interaction of successful ventures with the personal networks or social norms to get the feedback. The universities, the social media stimulate entrepreneurship among youngsters. The catalytic effect is seen in the ecosystem due to the interactive networks and communication of success stories, mentors, capital availability and other elements of the ecosystem.

Figure-3: Domains of the Entrepreneurship Ecosystem

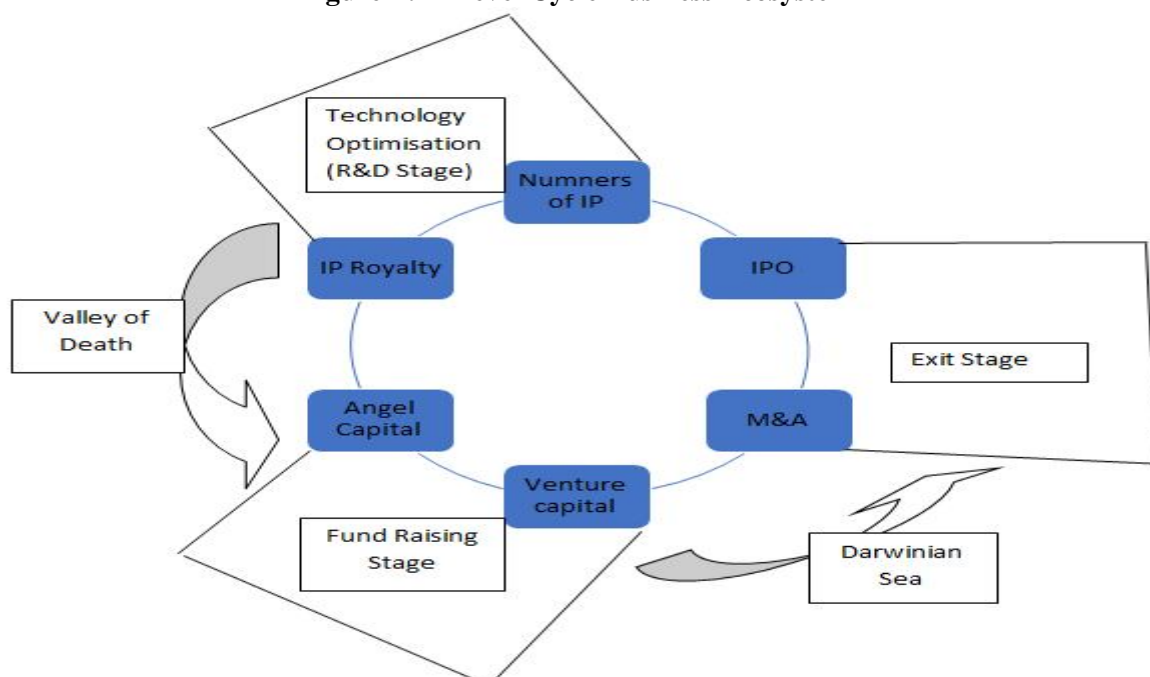


Source: Daniel Isenberg & Vincent Onyemah, Fostering Scale Up Ecosystems for Growth: The Cases of ManizalesMas and Scale Up Milwaukee

D. Trilevel Cycle Business Ecosystem

To overcome the limitations of static models of business ecosystem, **Lee, M.H et al (2017)** proposed a dynamic tri-level cycle business ecosystem model using the dynamic approach of startup life cycle framework. This framework includes three stages namely, technology optimization (R&D), fundraising, and exit which navigates through the path and cycles of and entrepreneur and capital in startup business ecosystem. The entrepreneur must overcome the tasks of Valley of Death and Darwinian Sea at each developmental stage which accounts for a startup ecosystem. The model focuses on technology startups, which initially goes through the first stage by accessing the intellectual property rights and then acquires the required funds through angel and venture capital, thus passing the test of valley of death. Lee, M.H. et al finds that it is difficult for the startup entrepreneurs to survive the Darwinian sea, as it makes difficult for them to sustain in the market due to competition. Those startups become successful, if they go through the initial public offer or merge with other companies, there by merging in providing competitive services dominating the market over the Darwinian sea.

Figure-4: Trilevel Cycle Business Ecosystem

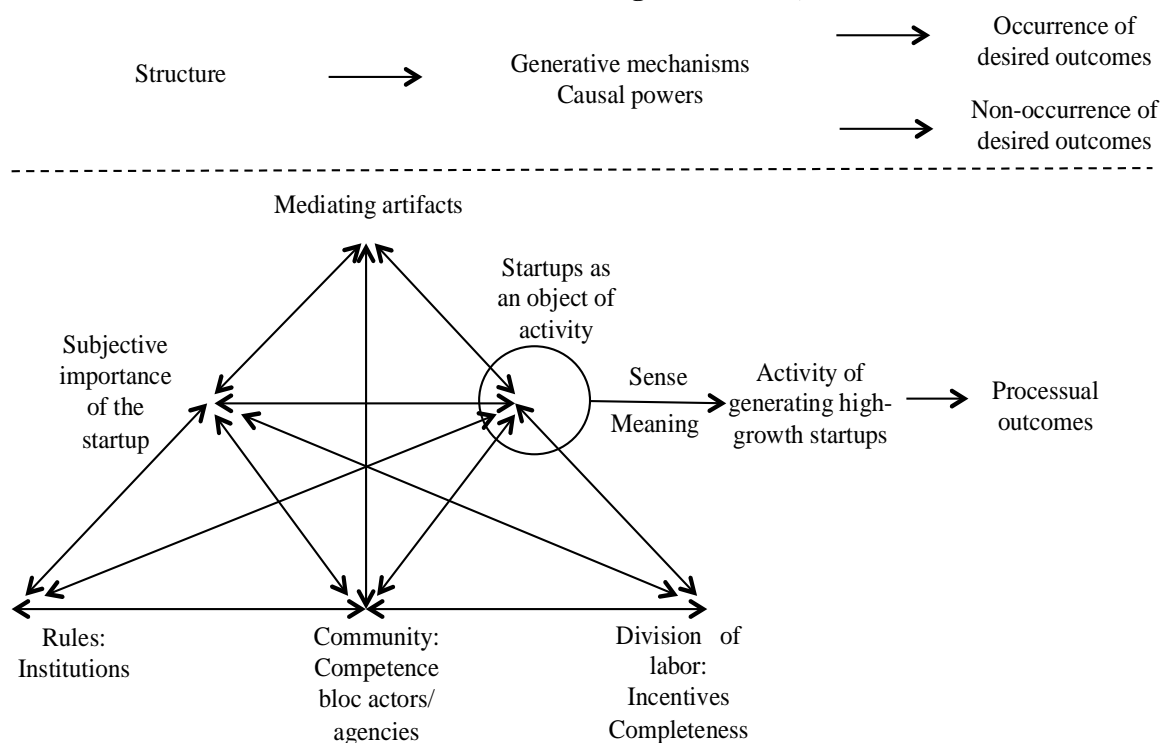


Source: A dynamic approach to the start-up business ecosystem: a cross-comparison of Korea, China, and Japan, Lee, MH et al (2017)

E: Startup Ecosystem Structure, Mechanisms and Critical Realist Causality

Sipola et al, used the applicability of the competence bloc theory (Eliasson,2006) in examining the functioning of ecosystem to understand the various economic actors in the structure of ecosystem. It is felt that the ecosystem's competence and its positive impact on job creation and economic prosperity can be measured only with the emergence of successful startups as a processual outcome. Sipola et al, suggested six economic actors and agencies in the structure of competence bloc, namely Customers, Innovators, Entrepreneurs, Venture capital, Exit markets and Industrialists. Sipole et al, defined a startup as 'a shared object in the collective processual creation of potential high-growth businesses' and define a startup ecosystem not as a 'thing' or a structure but rather as means for 'processual' building of successful startups.

Fig-5: Startup Ecosystem Structure, Mechanisms and Critical Realist CausalitySource: , Sipole et al (2018) (Modified from Engeström 1987, 2001)

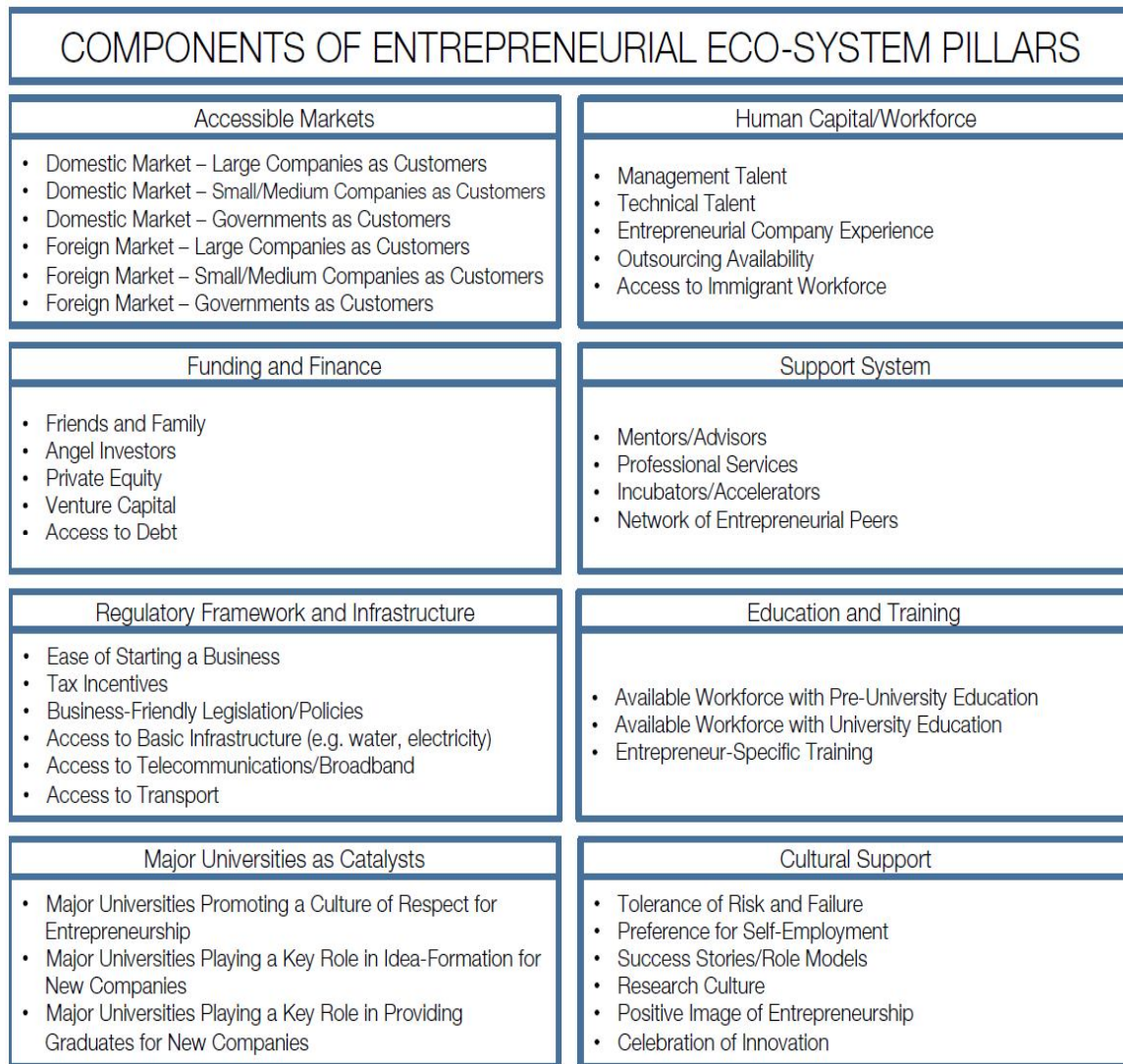
**F: Boulder Thesis**

Brad Feld (2015) states that there is enormous shift from the 'hierarchical' society to a 'networked' society. He strongly feels that 'Startup Communities' can be built on any region. He opinions that creating, building and sustaining startup communities over a long period of time will lead to the economic progress of any country. Feld, had proposed a '**Boulder Thesis**' and stated four key principles that are necessary to build successful startup communities. 1. Entrepreneurial communities need to be led by entrepreneurs, 2. The leaders must have a long-term commitment. 3. The leaders must welcome everyone into the entrepreneurial community and 4. The community must have continual activities which engage the entire entrepreneurial stack.

G. Isenberg (2010) points out that every ecosystem is unique and the Governments around the world should not compare itself with 'Silicon Valley' as each ecosystem depends on its strong set of conditions uniquely prevalent in their regions. He states that the entrepreneurship ecosystem consists of complex set of individual elements such as leadership, culture, capital markets, and openminded customers. He advises the governments to focus on nine key principles to have a thriving startup ecosystem. He suggested that the leaders should look for domestic solutions taking advantage of its own geographic location, engagement of private sector, focus on high potential ventures with high impact entrepreneurs, "Law of small numbers", change in social norms and create a culture where entrepreneurship can thrive and create success stories, have a right framework with respect to legal, bureaucracy and regulatory aspects which can create positive impact on creation of new ventures.

H. World Economic Forum (2010) examined the successful growth strategies of different early-stage startups around the world. It stated that to thrive and survive, the startups need to view the world through an opportunity lens with an enormous amount of optimism, stamina and ability and it suggested 8 pillars of entrepreneurial ecosystem.

World Economic Forum (2013) suggested 8 Pillars of Entrepreneurial Ecosystem



1.4 Domains of Startup Eco System

There are number of business ecosystem models existing, but they are limited in analyzing the entire business ecosystem for startups and use static. Keeping the limitations found in literature review, a new model of startup eco system is proposed which consist of network of number of interrelated and interconnected nodes where various actors and factors play various roles in association with the environmental elements in which the ecosystem blooms.

DOMAINS OF STARTUP ECOSYSTEM

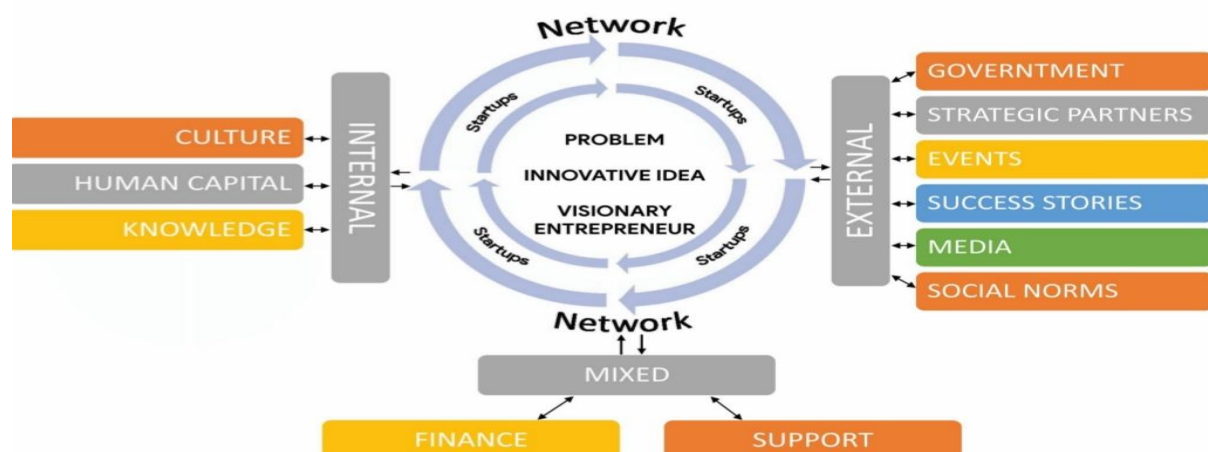


Fig-6: The Domains of Startup Ecosystem

The focal of startup ecosystem is built around the burning problem of an economy, which needs to be identified by the entrepreneur who has vision. With his foresight he will identify the gap that is existing, that needs an immediate solution, for which he will come up with unique idea that is innovative. Thus, the problem, innovative idea and visionary entrepreneur becomes the crucial point based on which startups emerge. The startups are interlinked and interconnected with number of forces and factors.

An entrepreneur can be successful, if he/she can solve the problem in a way that nobody could have imagined. Identifying the problem or the gap becomes the core of our startup ecosystem. The focus of the ecosystem builds on those founders who have a vision and foresight to identify a pressing need of the economy and come up with an innovative solution to solve such problems. Innovative Idea is at the core of Startup Ecosystem. Innovation can be in several forms be it in the product, services, process or in the management. Innovation is an application of something creative that has a significant impact on an organization, industry or society. The startups need to have progressive and radical innovation that opens to new markets.

Finance being very crucial for the startup, they typically get finance through self-funding, friends and family, angel investors, seed capital from venture capitalists and large corporations' venture funds. At recent times the Governments in all the countries are also focusing on funding the startups. The startups require professional and infrastructure supports in all stages of its life cycle. They require professional help in the areas of legal, accounting, investment and other tech services. Advisors, mentors and accelerators act as supporting link and provide the required guidance. It also needs various infrastructural support like telecommunication, logistics, energy, technology, co working spaces, co labs, incubation facilities, startup kits to bloom in an economy.

The growth of startups depends on the right kind of people who join the founders. The studies suggest that the startup should consist of people from diverse backgrounds with different talents and skills. The more diverse it is the greater the creativity and perspectives from the members which adds to the improved performance of the business. The startup ecosystem is also characterized to be knowledge based or information rich. The university-based startups get the advantage of having access to knowledge, resources, mentoring and other support. The serial entrepreneurs, and those with the experience share their knowledge during the startup meets and create a positive atmosphere in the startup entrepreneurial environment.

The culture of startup founders is the most crucial factor that drives the startups. These founders are innovative, creative, proactive and collaborative. They have the attitude of having open mind and show the qualities of being dynamic in the startup environment. They act proactively with a vision of the problems that the economy face, for which they come up with innovative and economical solutions. The startup entrepreneurs are with an attitude of giving before receiving, who are willing to share the knowledge, experience and expertise. These startup founders may fail but they are experimentative. The risk tolerance and appetite of the startup founders make a startup ecosystem to flourish. Those countries, where the startup founders have taken risk has grown than those countries where the startup founder is very cautious of risk involved.

The policies of the Governments towards startups, its regulatory framework and infrastructural support also impacts the growth of startups in a country. There is evidence of growth of startups in that conducive environment created to ease of doing business by governments across the startup ecosystem in the world. The big corporates and the network partners also act as strategic partners in facilitating financial and intelligence support to the startups. The relationship between ecosystem's actors cultivate and accelerate innovation through exchange of information and ideas and the increased collaboration.

Startup entrepreneurship is a local phenomenon, as it gets created due to the local problems and requirements. These different startup founders need different programs to understand the need and the ecosystem. The various events such as Meetups, Networking events, Startup Fest, Hackathons, Seminars & Conferences, Summits and various entrepreneurship events provide them with required knowledge and support. The successful entrepreneurs influence the others to come up with innovative ideas to address the problems prevalent locally in an economy. The visible success that the youngsters see, the global reputation of local startups, the awards, the wealth generation, getting access to funding, mergers and acquisition boost the small startup entrepreneurs. Media also plays a key role in spreading the success of the startups. The public relations maintained by these companies and the media coverage that these companies can have access to makes the other strategic partners to know about the potential growth of the companies, which can bring in more alliances with strategic partners.

CONCLUSION

A startup is usually an entrepreneurial venture, formed as a small business, in its first stage of its operation, financed initially by their founders, which is designed to develop, grow fast and scale up higher with its business model which focuses on innovative product, service, process, platform or solutions to address various

business and economic problems pertaining to the target market, in which the founders strongly believe in. The study analysed the startups ecosystem. The various conceptual models by Spilling, Zacharakies, Daniel Isenberg, Lee MH, Sipola et al, Boulder Thesis, World economic forum were studied. As these models were static in nature, a new model 'Domains of Startups' were proposed which unlike marketing theories doesn't focus on customers. The proposed framework states that the problem prevalent in an economy is the focal point which the visionary entrepreneur analyses and comes up with an innovative solution to the problem.

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PRE AND POST RECESSION ANALYSIS OF PERFORMANCE OF GOLD LOAN COMPANIES IN THANE REGION

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ABSTRACT

A recession is a business cycle contraction, a general slowdown in economic activity. During recessions, many macroeconomic indicators vary in a similar way. Production, as measured by gross domestic product (GDP), employment, investment spending, capacity utilization, household incomes, business profits, and inflation all fall, while bankruptcies and the unemployment rate rise. Recessions generally occur when there is a widespread drop in spending, often following an adverse supply shock or the bursting of an economic bubble. Governments usually respond to recessions by adopting expansionary macroeconomic policies, such as increasing money supply, increasing government spending and decreasing taxation. This paper helps in better understanding of the concept of recession. It also helps us in knowing the impact of recession on selected Indian and foreign companies and suggests few recommendations to overcome recession.

Keywords: Recession, Performance, impact and GDP

1. INTRODUCTION

In the global economic meltdown no country has been spared, be it big or small, developing or developed, relatively insulated or more open. Though the crisis was led by the financial sector, the shock has impacted both financial and real sectors. Many European, American and Japanese companies are facing severe crisis of liquidity and credit. There is no doubt that India is also one of the victims of the global turmoil. India's cautious approach towards reforms has saved it possibly from disastrous implication the monetary and fiscal stimulus measures initiated in the wake of the global financial crisis played an important role, in mitigating the adverse impact of contagion and then in ensuing that the economy recovered quickly, despite of all odds India has managed to achieve 7.2% economic growth rate.

Indian banking has taken a great leap forward where it is already waiting for the third phase of reform to come closer to international standard in Indian banking NBFCs have gained a lion share in global market. The gold loan companies have emerged as substantial contributors to the Indian economic growth by supplementing the efforts of banks and other financial institution. Gold loan companies are widely dispersed across the country and their management exhibits varied degree of professionalism.

The era of financial liberalization has ushered in an upbeat trend in the Indian financial services industry. One of the dimensions of the trend is flooding of innovative financial products and services. The dynamic economic scenario today is highly characterized by a radical reorganization of this financial services industry and has branched out with many fields wherein NBFCs are typically funding into gold loans, microfinance, consumer durables and two wheeler loan, commercial and vehicle loan, loan against shares and so on.

Indeed it is evident in India that with the development of NBFCs segment within the overall financial system, it challenged the other segments, viz., banks to innovate, to improve quality and efficiency, and deliver at flexible timings and at competitive prices. In fact, in a number of un-treaded paths, NBFCs were the ones to enter first to try the market and develop before banks entered the field. In India, for instance, the loans against gold jewellery were introduced by the NBFCs much before the nationalised banks entered this market. Similarly, lending to small traders and small transport operators, used-commercial vehicle financing, in particular, were initiated by the NBFC.

The global recession is defined as a decline in the value of goods and services rendered to the country throughout one year in a time span of six months. The recession said to occur when the confidence of consumers is lost in the growth of the economy. The consumers start spending less causing in decrease of demand for goods and services. This caused decrease in production of goods and increased unemployment all over the world.

RECESSION ITS CAUSES

- An economy which grows over a period of time tends to slow down the growth as a part of the normal economic cycle.
- A recession normally takes place when consumers lose confidence in the growth of the economy and spend less.

- This leads to a decreased demand for goods and services, which in turn leads to a decrease in production, lay-offs and a sharp rise in unemployment
- Investors spend less as they fear stocks values will fall and thus stock markets fall on negative sentiment

2. IMPACT OF RECESSION ON INDIA

In the age of globalization, no country can remain isolated from the fluctuations of world economy. Heavy losses suffered by major International Banks is going to affect all countries of the world as these financial institutes have their investment interest in almost all countries. As of now India is facing heat on three grounds:

1. The Share Markets were falling every day, (However on the last day of September 2009 the Sensex was above 17000)
2. Rupee was weakening against dollars and
3. Our banks were facing severe cash crunch resulting in shortage of liquidity in the market.

Actually all the above three problems are interconnected and have their roots in the global crisis.

3. GOLD LOAN IN INDIA

In India, gold loan has become popular in recent times. This type of loan is gaining a strong foothold due to less complicated documentation, tailor-made loan arrangements and lower processing time. The organized gold loan market has grown at a compound annual growth rate (CAGR) of 40% from 2002 to 2010 [Source: Cognizant Report 2012]. NBFCs have been a major driving force behind this growth given their extensive network, faster turnaround time, and the ability to serve non-bankable customers. With such a rapid growth of the NBFCs, the Reserve Bank of India (RBI) has issued various directives to strictly control their activities. NBFCs had been traditionally disbursing gold loans through funds received from banks under priority lending for the agricultural sector but on several occasions such money lent by the banks were misused. Accordingly, on 2nd February, 2011, RBI issued a directive that loans sanctioned to NBFCs for lending against gold jewellery, are not eligible for classification under agriculture sector. [Source: <http://www.rbi.org.in>]. This increased the cost of borrowing for the NBFCs. RBI on March 21, 2012 directed that all NBFCs shall maintain Loan-to-Value (LTV) ratio (the percentage of the value of gold collateral given out as loan) not exceeding 60% and disclose in their balance sheet the percentage of such loans to their total assets. Moreover, gold NBFCs have to maintain a minimum Tier 1 capital (*comprises of share capital and disclosed reserves minus goodwill, if any, Reserve Bank of India-Glossary*) of 12% by April 01, 2014. They should not grant any advance against bullion / primary gold and gold coins. The guidelines of RBI, though restrictive in the beginning but is expected to improve the overall performance of the gold NBFCs.

4. OBJECTIVES OF THE STUDY

1. To study the performance and efficiency of gold loan companies from different prospects during pre and post-recession period.
2. To study the policy of RBI related to gold loan companies
3. To analyze the impact of recession on human resource policies of the company

5. REVIEW OF LITERATURE

The important studies done in India and abroad bearing direct or indirect effect on the present study have been reviewed and presented hereunder

1. Bhatia (1978) - In his study titled, "Banking Structure and Performance – A Case of the Indian Banking System" endeavoured to investigate the financial performance of Indian banking system as reflected by its yield, cost and profitability amid the 1950-68. He found that profit of the Indian banking system amid said period had an upward pattern. The study recommended deregulation of interest rate to improve the profitability of financial institutions and to guarantee competitive banking domain which would result in better services
2. Pathak (2003) - On contrasting the financial performance of private sector banks utilized 4 types of pointers viz. financial, operational, productivity and profitability for 5 year time frame ending on 2001. Among the sample of 5 banks, HDFC bank rose as the top performer took after by ICICI bank.
3. Neetu Prakash (2006) – He directed a far reaching study on the development of retail banking in India. The findings of this study show that the development of retail banking is an important point of reference in Indian banking improvements, through the development of retail banking in India is little when contrasted

with work standard. The study likewise finds that the execution of private sector banks in respect of retail banking is vastly improved than that of public sector.

4. Shaikh R. K. (2009) - The researcher has quoted at that numerous countries are experiencing crisis in which the activities of the economy have been hindered. There is an immense effect on the capital flow, sectoral development and financial sector because of recession.
5. John H. Cochrane (2010) - In his study the researcher utilize the valuation condition of government debt to comprehend financial and monetary policy in and following the great recession of 2008-2009 to consider whether the US is set out toward a financial inflation and what that inflation will resemble. The study underscore that a fiscal inflation can come well before large deficit or monetization are realised and is prone to accompany stagnation as opposed to a boom.

6. DATA ANALYSIS

Gender Classification

		Company		Total
		Muthoot Finance Ltd.	Manappuram Finance Ltd	
Gender	Male	136	112	248
	Female	64	88	152
Total		200	200	400

As per above Table no. and graph, it is revealed that 136 male and 64 female of 200 respondents in Muthoot Finance Ltd have given their responses to various asked questions during the survey, Similarly 112 males and 88 females of 200 respondents in Manappuram Finance Ltd. have given views on various asked questions.

Age Group Classification

		Company		Total
		Muthoot Finance Ltd.	Manappuram Finance Ltd	
Age	>25 years	18	8	26
	25 to 34 years	29	39	68
	35 to 44 years	107	83	190
	45 yrs and above	46	70	116
Total		200	200	400

Age is one of the prime criteria while preparing questionnaire for the study. In the above Table no. and graph, it is clearly indicated; respondents of different age category of two companies have given their opinion in different way to understand various performance parameters of respective companies. Respondents of Muthoot Finance Ltd and Manappuram Finance Ltd in different age group are explained in following ways: Age group > 25 years are 18 and 8, Age group between 25 years to 34 years are 29 and 39, Age group between 35 to 44 years are 107 and 83 and Age group 45 yrs and above 46 and 70 respectively.

Qualification Level

		Company		Total
		Muthoot Finance Ltd.	Manappuram Finance Ltd	
Qualification	Higher Secondary	66	33	99
	Under Graduate	39	61	100
	Graduate	30	22	52
	Master Degree	36	45	81
	Others	29	39	68
Total		200	200	400

Qualification is also considered as demographic factor and independent variable to obtain result of the study problem. In the above Table no. and graph, 66 respondents are having Higher Secondary qualification, 39 respondents as undergraduate, 30 graduates, 36 respondents are having Master Degree and 29 respondents have other qualifications in Muthoot Finance Ltd. whereas 33 respondents are having Higher Secondary qualification, 61 respondents as undergraduate, 22 graduates, 45 respondents are having Master Degree and 39 respondents have other qualifications in Manappuram Finance Ltd.

Occupation Classification

		Company		Total
		Muthoot Finance Ltd.	Manappuram Finance Ltd	
Occupation	Business	77	57	134
	Service	59	79	138
	Professional	33	50	83
	Others	31	14	45
Total		200	200	400

Researcher also considers occupation of the customer as one of the demographic factor for understanding need of loan and credit. From the above Table no. and graph, it is revealed that 77 respondents belongs to Business, 59 respondents belongs to Service, 33 respondents are professionals and 31 respondents falls in other occupation in Muthoot Finance Ltd while 57 respondents belongs to Business, 79 respondents belongs to Service, 50 respondents are professionals and 14 respondents falls in other occupation in Manappuram Finance Ltd.

Purpose of loan

		Company		Total
		Muthoot Finance Ltd.	Manappuram Finance Ltd	
Purpose of loan	Personal	95	76	171
	Medical	27	46	73
	Education	35	19	54
	Business	43	59	102
Total		200	200	400

Here researcher has considered 'Purpose of Loan' as one of the independent variable to distinguish and categorize the customer's need and requirement of the loan and credit. By observing the above Table no. and graph, 95 and 76 respondents have taken loan for personal purpose, 27 and 46 respondents have borrowed for medical purpose, 35 and 19 respondents for education purpose and remaining i.e. 43 and 59 respondents showed their need of loan for business in Muthoot Finance Ltd. and Manappuram Finance Ltd respectively.

7. SUGGESTIONS

- 1) Gold loan companies should also work on the behaviour of the staff. An indifferent and well-mannered staff can be helpful to improve the quality of services. Proper training to staff regarding behaviour, incentive for good behavior, code of conduct is some important strategies by which staff behavior can improve.
- 2) To improve the quality of service, number of counters within branches be increased specially in big branches. It will help to save the customer's valuable time.

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A CRITICAL STUDY ON HUMAN RESOURCE PRACTICES IN PHARMACEUTICAL COMPANIES WRT. TO AGE**Dr. Veena Prasad**

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ABSTRACT

Human Resources play not only significant but also a crucial role in building and developing an organization. It is often opined that, "the difference between two organizations in terms of competencies is due to difference in the capabilities of their "HUMAN RESOURCES".

This study attempts to study Human Resource Practices for Medical Representative of Pharmaceutical Companies in Mumbai region. The study focuses on how age is a factor for the HR practices followed by the companies. It also investigates whether training programmes are effective keeping age and experience as a factor to be considered. It further evaluates how Performance evaluation and Career development are taken care for the employees in different age group.

INTRODUCTION

In recent times many new approaches to the study of human element in organizations have emerged. People are viewed as the most valuable resource of an Organisation. A number of inferences have been drawn based on research studies regarding the ways of treating people and motivating them for better performance. Further for the organizational development the researchers have emphasized to role of leadership, the investment in training, career development, etc.

These inferences linked with advances in the behavioural sciences have enlarged the traditional concept of personnel administration and management and have given birth to what is termed as "Human Resource Management".

RESEARCH DESIGN

The data relevant for the study has been gathered both from primary and secondary sources. The secondary data has been gathered through a comprehensive survey of the research works carried out at academic and official levels. Various research projects brought out by academicians and the reports prepared by the commissions and committees of the government and other autonomous research organisations have been the source for the secondary data. The researcher has gathered the basic primary data by administering a Questionnaire both to the employees of the five organizations selected for the study.

The questionnaire was developed incorporating few important domains of HRM practices such as:

1. HR Practices & Employees perception towards it.
2. Training & Development
3. Performance appraisal
4. Employee potential assessment & development

All the Pharmaceutical companies within Mumbai come under Population frame as they are the subject of interest for the research work. Medical Representatives from five companies among top 20 companies have been selected as a sample on random basis for the purpose of research.

The details of the units and the number of respondent members for the study are presented in Table 1.1. For the purpose of collecting the primary data relevant for the study, 40 employees from each company were selected for gathering data for the research work. The sample design is as below.

Sr. No.	Name of the Pharmaceutical Company	Code	Sample Size
1	CIPLA	A	40
2	GLENMARK	B	40
3	MENARINI INDIA LTD.	C	40
4	SUN PHARMA	D	40
5	TORRENT	E	40

OBJECTIVES

The study has been carried with the following specific objectives:

1. To analyse the perception of employees towards Human Resource practices w.r.t. age in select Pharmaceutical Companies.

2. To analyse the effectiveness of training programme w.r.t. age in the select Pharmaceutical companies.
3. To evaluate the performance appraisal system and Career development w.r.t. age in the select Pharmaceutical companies.
4. To suggest suitable HR strategies, in the background of the findings of the study.

HYPOTHESIS

H_{01A}: There is no association between age group and level of HR practices satisfaction.

H_{01B}: There is no association between age group and level of training program satisfaction.

H_{01C}: There is no association between age group and level of performance evaluation satisfaction.

H_{03D}: There is no association between age group and level of potential assessment satisfaction.

TESTING OF HYPOTHESIS

H_{01A}: There is no association between age group and level of HR practices satisfaction.

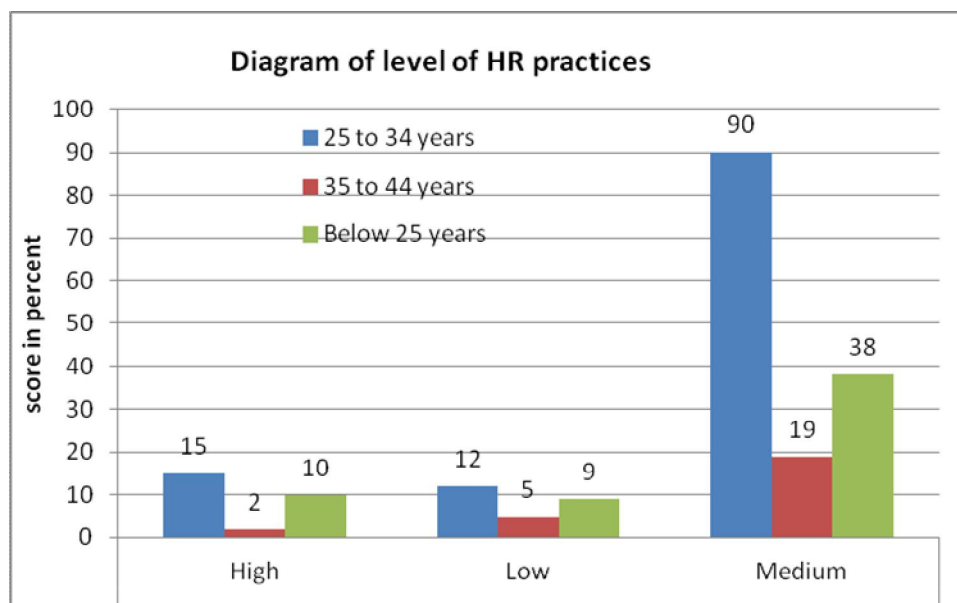
To test above null hypothesis bivariate frequency table of age group and level of satisfaction of HR practices is obtained and presented as follows.

Crosstab				
Count				
Age group	Level of HR practices			Total
	High	Low	Medium	
25 to 34 years	15	12	90	117
35 to 44 years	2	5	19	26
Below 25 years	10	9	38	57
Total	27	26	147	200

Above table indicates that out of total 200 respondents 117 respondents are between age group of 25 to 34 years, 26 respondents are between age group of 35 to 44 years and remaining 57 are between age group of below 25 years. Out of 117 respondents between age group of 25 to 34 years, 90 respondents belongs to medium level of satisfaction towards HR practices. 12 respondents belong to low level of satisfaction and remaining 15 respondents belongs to high level of satisfaction towards HR practices.

Out of 26 respondents between age group of 35 to 44 years, 19 respondents belongs to medium level of satisfaction towards HR practices. 5 respondents belong to low level of satisfaction and remaining 2 respondents belongs to high level of satisfaction towards HR practices.

Out of 57 respondents between age group of below 25 years respondents, 38 respondents belongs to medium level of satisfaction towards HR practices. 9 respondents belong to low level of satisfaction and remaining 10 respondents belongs to high level of satisfaction towards HR practices. This information is presented using multiple bar diagram as shown below.



To validate abovementioned hypothesis Chi-square test is applied. Results of the test are as follows.

Chi-Square Tests				
Particulars	Value	df	p-value	Result
Pearson Chi-Square	3.724 ^a	4	0.445	Accepted

Above results indicate that for 2 degree of freedom (df) calculated value is 3.724. Its corresponding p-value is 0.445. This p-value is greater than standard p-value which is 0.05. Therefore Chi-square test is accepted and hence null hypothesis is accepted.

Conclusion: There is no association between age group and level of HR practices satisfaction.

FINDING of hypothesis: HR practices satisfaction is uniform for different age group of respondents.

For detail study HR practices score for different age group is obtained and presented in the following table.

Report			
Score of HR practices			
Age group	N	Mean	Std. Deviation
25 to 34 years	117	79.5482	9.83540
35 to 44 years	26	72.8709	19.80143
Below 25 years	57	77.6942	12.82878
Total	200	78.1518	12.52238

Above table indicate that mean satisfaction score of HR practices for respondents aged between 25 to 34 years is 79.5482, for respondents aged between 35 to 44 years is 72.8709 and for respondents aged below 25 years is 77.6942. There is difference between the respondents but statistically this difference is not significant.

H_{01B}: There is no association between age group and level of training program satisfaction.

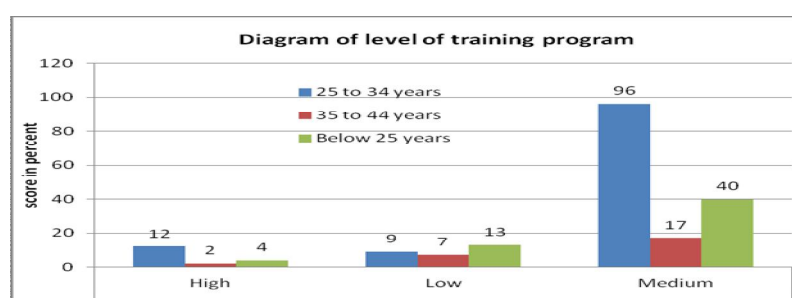
To test above null hypothesis bivariate frequency table of age group and level of training program satisfaction is obtained and presented as follows.

Crosstab				
Count				
Age group	Level of training program			Total
	High	Low	Medium	
25 to 34 years	12	9	96	117
35 to 44 years	2	7	17	26
Below 25 years	4	13	40	57
Total	18	29	153	200

Out of 117 respondents between age group of 25 to 34 years, 96 respondents belongs to medium level of satisfaction towards training program. 9 respondents belong to low level of satisfaction and remaining 12 respondents belong to high level of satisfaction towards training program.

Out of 26 respondents between age group of 35 to 44 years, 17 respondents belongs to medium level of satisfaction towards training program. 7 respondents belong to low level of satisfaction and remaining 2 respondents belong to high level of satisfaction towards training program.

Out of 57 respondents between age group of below 25 years respondents, 40 respondents belongs to medium level of satisfaction towards training program. 13 respondents belong to low level of satisfaction and remaining 4 respondents belong to high level of satisfaction towards training program. This information is presented using multiple bar diagram as shown below.



To validate abovementioned hypothesis Chi-square test is applied. Results of the test are as follows.

Chi-Square Tests				
Particulars	Value	df	p-value	Result
Pearson Chi-Square	10.912 ^a	4	0.028	Rejected

Above results indicate that for 4 degree of freedom (df) calculated value is 10.912. Its corresponding p-value is 0.028. This p-value is less than standard p-value which is 0.05. Therefore Chi-square test is rejected and hence null hypothesis is rejected.

Conclusion

There is association between age group and level of training program satisfaction.

Finding of hypothesis: Training program satisfaction is not uniform for different age group of respondents.

For detail study training program score for different age group is obtained and presented in the following table.

Report			
Score of Training program			
Age group	N	Mean	Std. Deviation
25 to 34 years	117	81.6382	8.33616
35 to 44 years	26	73.2051	20.29189
Below 25 years	57	77.3392	11.66182
Total	200	79.3167	11.81846

Above table indicate that mean satisfaction score of training program for respondents aged between 25 to 34 years is 81.6382 which is highest among all age groups and for respondents aged between 35 to 44 years is 73.205, which is least among all age groups.

H_{01C}: There is no association between age group and level of performance evaluation satisfaction.

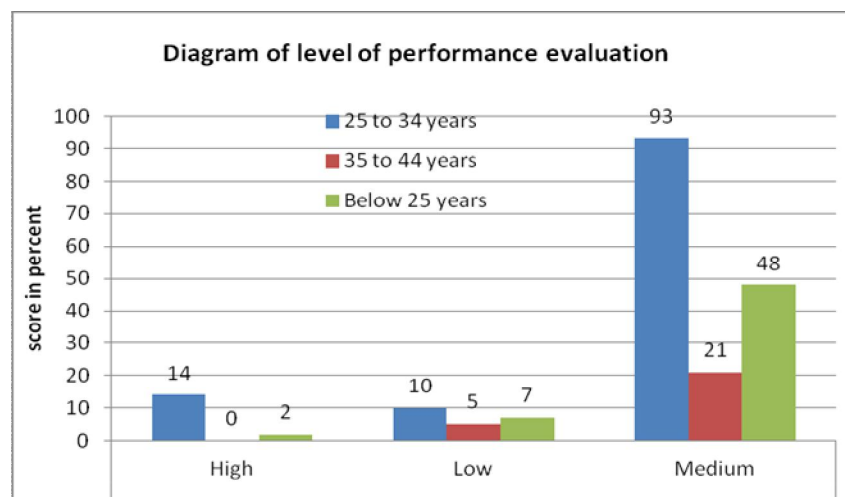
To test above null hypothesis bivariate frequency table of age group and level of performance evaluation satisfaction is obtained and presented as follows.

Crosstab				
Count				
Age group	Level of Performance evaluation			Total
	High	Low	Medium	
25 to 34 years	14	10	93	117
35 to 44 years	0	5	21	26
Below 25 years	2	7	48	57
Total	16	22	162	200

Out of 117 respondents between age group of 25 to 34 years, 93 respondents belongs to medium level of satisfaction towards performance evaluation. 10 respondents belong to low level of satisfaction and remaining 14 respondents belong to high level of satisfaction towards performance evaluation.

Out of 26 respondents between age group of 35 to 44 years, 21 respondents belong to medium level of satisfaction towards HR practices and 5 respondents belong to low level of satisfaction towards performance evaluation.

Out of 57 respondents between age group of below 25 years respondents, 48 respondents belongs to medium level of satisfaction towards performance evaluation. 7 respondents belong to low level of satisfaction and remaining 2 respondents belong to high level of satisfaction towards HR practices. This information is presented using multiple bar diagram as shown below.



To validate abovementioned hypothesis Chi-square test is applied. Results of the test are as follows.

Chi-Square Tests				
Particulars	Value	df	p-value	Result
Pearson Chi-Square	8.249 ^a	4	0.083	Accepted

Above results indicate that for 4 degree of freedom (df) calculated value is 8.249. Its corresponding p-value is 0.083. This p-value is greater than standard p-value which is 0.05. Therefore Chi-square test is accepted and hence null hypothesis is accepted.

CONCLUSION

There is no association between age group and level of HR practices satisfaction.

FINDING of hypothesis: Performance evaluation satisfaction is uniform for different age group of respondents.

For detail study performance evaluation score for different age group is obtained and presented in the following table.

Report			
Score of Performance evaluation			
Age group	N	Mean	Std. Deviation
25 to 34 years	117	80.7906	11.10612
35 to 44 years	26	70.8654	20.72369
Below 25 years	57	75.7895	12.71387
Total	200	78.0750	13.56334

Above table indicate that mean satisfaction score of performance evaluation for respondents aged between 25 to 34 years is 80.7906, for respondents aged between 35 to 44 years is 70.8654 and for respondents aged below 25 years is 75.7895. There is difference between the respondents but statistically this difference is not significant.

H_{03D}: There is no association between age group and level of potential assessment satisfaction.

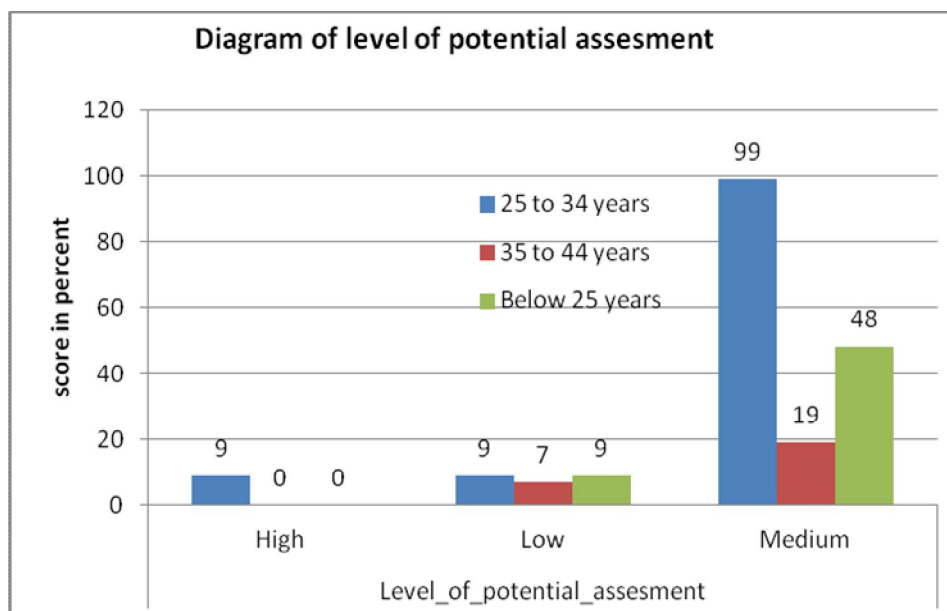
To test above null hypothesis bivariate frequency table of age group and level of potential assessment satisfaction is obtained and presented as follows.

Crosstab				
Count				
Age group	Level of Potential assessment			Total
	High	Low	Medium	
25 to 34 years	9	9	99	117
35 to 44 years	0	7	19	26
Below 25 years	0	9	48	57
Total	9	25	166	200

Out of 117 respondents between age group of 25 to 34 years, 99 respondents belongs to medium level of satisfaction towards potential assessment. 9 respondents each belongs to low level and high level of satisfaction towards potential assessment.

Out of 26 respondents between age group of 35 to 44 years, 19 respondents belongs to medium level of satisfaction towards potential assessment and 7 respondents belongs to low level of satisfaction towards potential assessment.

Out of 57 respondents between age group of below 25 years respondents, 48 respondents belongs to medium level of satisfaction towards potential assessment and 9 respondents belongs to low level of satisfaction towards potential assessment. This information is presented using multiple bar diagram as shown below.



To validate above mentioned hypothesis Chi-square test is applied. Results of the test are as follows.

Chi-Square Tests				
Particulars	Value	df	p-value	Result
Pearson Chi-Square	13.724 ^a	4	0.008	Rejected

Above results indicate that for 2 degree of freedom (df) calculated value is 13.724. Its corresponding p-value is 0.008. This p-value is less than standard p-value which is 0.05. Therefore Chi-square test is rejected and hence null hypothesis is rejected.

CONCLUSION

There is association between age group and level of potential assessment satisfaction.

FINDING of hypothesis: Potential assessment satisfaction is different for different age group of respondents.

For detail study HR practices score for different age group is obtained and presented in the following table.

Report			
Score of Potential assessment			
Age group	N	Mean	Std. Deviation
25 to 34 years	117	81.5100	9.49385
35 to 44 years	26	73.2051	22.12552
Below 25 years	57	77.4561	12.87187
Total	200	79.2750	13.01395

Above table indicate that mean satisfaction score of potential assessment for respondents aged between 25 to 34 years is 81.51, which is highest and for respondents aged between 35 to 44 years is 73.2051, which is lowest.

SUGGESTIONS & RECOMMENDATIONS

1. Training Program should be designed better according to the age and experience. Mean of training program for respondents below 25 years of age and above 35 years of age was found low. The program may not be interesting for young respondents and probably not more educative for experienced respondents.
2. Potential assessment should be done regularly and accordingly the employees need to be addressed. Mean of Potential assessment for respondents below 25 years of age and above 35 years of age was again found to be low. HR needs to think on this aspect.

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ETHICAL HACKING: A STUDY WITH RESPECT TO EXPLORING RECONNAISSANCE TECHNIQUES, MALWARE THREATS AND THEIR COUNTERMEASURES

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ABSTRACT

Security of information is a matter of prime concern in today's information based economy. We need to protect our data from hacking. Hacking is a process to utilize weakness in the system and gaining unapproved access to data and system resources. When business connect their systems and computer, despite of having many security setups, it raises a greater potential for security issues such as data loss, security breaches, malicious attacks. The objective of this paper is to describe types of ethical hackers, need of ethical hacking, steps in security testing plan and to implement measures to reduce vulnerability to unauthorized access or damage of information.

Index Terms: Ethical Hacking, Vulnerability, Information gathering, Information Security.

1. INTRODUCTION

The information security is designed to protect confidentiality, integrity and availability of system data from those with malicious intentions. The increased use of internet has given an entrance to many things like twitter, LinkedIn, snapchat, Instagram, Weibo, QZone, online shopping and information distribution which invites hackers to exploit personal information. So, the demand of ethical hacking is to protect the system from the destruction caused by the hackers.

2. ROLE OF HACKER

They are the computer programmer who has knowledge of computer programming and they have enough information on the system they are about to hack.

3. HACKING AND HACKING STAGES

Hacking indicates the process of unauthorized intervention into a computer or network. Targeting specific machine for hacking should follow the five steps.

3.1 Survey

It is the first step where hacker collects the information about the object.

3.2 Investigate

This step involves exploring the information gathered during survey step and using the same to inspect the object. Hackers can use the automated tools during investigate phase which includes Unicornscan, NMap, Angry IP Scan, Nikto and Aircrack.

3.4 Gaining Entry: The actual hackings are taken in this step. In this the hacker can exploit vulnerabilities unveiled during survey and investigate phase.

3.5 Retain Access: Using malwares like rootkits, backdoors and trojan, the hackers keep the gained access for future exploitation.

Covering Track: In this step, the hackers cover their track and traces to skip detection.

4. NECESSITY OF HACKING

After the terrorist attack of 11th September 2001, the need of IT professionals came into existence. These peoples are hired by companies to expose loop holes in security and then advise on how to fix them.

5. TYPES OF HACKERS

Hackers are varied diverse creatures and are of seven types:

5.1 Script Kiddie: These hackers don't care about hacking. They just copy the code and use it for a virus. A common script kiddie attack is Denial of Service attack.

5.2 White Hat: These hackers are professionals. They help to remove vulnerabilities from system and performs security audit of security test plan.

5.3 Black Hat: These people are crackers who provide harm to system by gaining unauthorized access to an asset.

5.4 Grey Hat: These hackers lie between good and bad hackers and might decide to reform and become a good hacker.

5.5 Green Hat: They care about hacking and becomes full blown hackers.

5.6 Red Hat: These are vigilantes of hacker's world. They shut down themselves by uploading viruses, DOS and accessing their computer to destroy it.

5.7 Blue Hat: These are security professionals invited by companies to explore vulnerabilities in software before launching it.

6. MALWARE THREATS

Malware is any software intentionally designed to damage computer network or server. Malware does the damage after it is implanted or introduced in some way into a target's computer and can take the form of executable code, scripts, active content and other software. Malware are of following Kind:

6.1 Worms: Worms have an ability to self-replicate to spread to other computers.

6.2 Virus: Viruses are the most infectious type of malware. It self-replicates by copying itself to another program.

6.3 Trojan: Trojan virus is designed to spy on victim's computer access file and extracts sensitive data.

6.4 Spyware: is a software that gathers information about person or organization without their knowledge that may send this information to another individual.

6.5 Rootkits: it is a fraudulent computer program to provide continued privileged access to computer while actively hiding its presence. This might take complete control of a system. It is difficult to locate.

7. ETHICAL HACKING PROCESS

The ethical hacking process needs prior planning of imperative and skillful issues. This is important for testing such as login test, web application test, physical penetration test, network services test. The security setup plan includes following steps:

- Establish the test target
- Select test environment
- Define test scope
- Determine test restrictions
- Determine test window details
- Obtain access credentials
- Obtain stakeholder approval

8. DEVICES FOR ETHICAL HACKER

8.1 Nmap: Is a Network Mapper to audit network and OS security for local and remote hosts. It is a well for being fast and for delivering thorough results with security investigation thoroughly.

8.2 Wireshark: It is a network packet analyzer. A network packet analyzer will try to capture, filter and inspect network packets and try to display that data packet as detailed as possible. It is an excellent debugging tool if we are developing network application.

8.3 Nessus: It is a scanner that scans for vulnerabilities and configuration errors of network attack. It deals with software flaws, missing patches, malware and misconfiguration across variety of operating systems, devices and application.

8.4 IronWASP: It is another great tool. Its free open source and multi-platform, perfect for those who need to audit their web servers and public applications.

8.5 BurpSuit: It is an advanced platform to support entire testing of web applications. It is a collection of tools bundled together which in turn help in exploiting security vulnerabilities.

8.6 Ettercap: This is the most useful tool for man in the middle and network sniffing attacks. Sniffing includes catching and interpreting the data inside a network packet on TCP/IP protocol.

8.7 QualisGuard: This Software as a Service vulnerability management tool designed for scanning, mapping, and identifying malware on website.

8.8 Aircrack: this tool cracks vulnerabilities for wireless connections and tests for card and driver's capabilities.

9. PREVENTING RECONNAISSANCE

Defense strategies for every network will vary. For every organization, it is useful to prevent information from an attacker.

9.1 Preventing Active Reconnaissance

Active reconnaissance can be restricted by implementing network defenses. It is difficult to remove active reconnaissance completely when services are provided to the outside world by means of internet. Active reconnaissance prevention includes:

- restricting the outside services
- assuring users know their external footprints
- Using Intrusion Prevention System technology

9.2 Preventing passive reconnaissance

It is an attempt to gain information about targeted computers and network. Preventing passive reconnaissance techniques includes:

- blacklisting systems
- thwarting bots using Captcha's
- using third party registration data to provide services instead of using the actual person or organization registering the domain.

10. CONCLUSION

The ever-evolving digital age is affecting information security immensely. As the technology is expanding the cybercrimes are increasing. Fortunately, the ability to counter cybercrimes has been developed. By being dependent on technology we are giving cyber criminals an invitation into our world through our identities, our bank accounts, and other important information. This paper highlights the work of ethical and malicious hackers. The ethical hackers maintain security, help us to understand organization security needs. On the other hand, malicious hacker intrudes the organizations security illegally and provide harm to the network for their personal benefit. If we analyze both the hackers bring forward the hidden security lapses of an organization. This information is used by the ethical hackers to make their clients understand their security needs.

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USAGE OF - SOCIAL – COMMERCE: A BOON OR A BANE

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RESEARCH ABSTRACT

What is Social Commerce ? It is when the social media platforms are used to make a personalised and targeted in-app experience shopping for the customers. It brings the ecommerce functionality directly into social media platforms. Social commerce is a sub-set of electronic commerce that involves the social media, online media that supports the social interaction and the users contributions in buying and selling of products, goods and services. Social commerce is the use of social networks in the contexts of e-commerce transactions. It was introduced by Yahoo !! in November in the year – 2005. It helps in customer-engagements and provides platforms for them to purchase various products. When the customers are satisfied with your brands, they recommend to others via social media and it makes a viral perspective with regards to the content-materials. Sometimes these channels also play an important role in your word-of-mouth marketing and thus marketing grows. Facebook is an example of Social commerce and many benefit from these modes.

Keywords: Social Commerce, targeted, users, e-commerce, content, viral, Facebook.

INTRODUCTION

Social Commerce is still a new trending- concept. In creating a social commerce strategy, offsite social commerce media is made up of brand pages, that live on social platforms and not on actual website, while onsite social media commerce type, is keeping the user on the site. Although Social Commerce is extremely valuable for both the retailers and the consumers, finances, however pours in. It is like a Social Networking Site, where a user has a Profile, Followers and Following, Different Community for different topics however the platform is not a social networking site, it is a dedicated site for online commerce. Hence it has robust feature for buying or selling goods online. Social commerce is the next big thing in Social media. Social commerce, across social channels so, market opportunity will be improving day by day. More than 50% of marketers are interested to invest in Social commerce. Social commerce is the part of ecommerce that involves buying and transaction through Social networks Business can yield maximum benefits from Social commerce. Social Commerce Market is a pretty big one right now especially since social media is booming. Unfortunately many businesses are slowly transitioning to social commerce. Adding a social layer to your business can greatly increase sales and conversions. It is a 90 billion dollar industry and 55% of consumers say they share their purchases via their social networking profiles (facebook, twitter, pinterest, and etc.). It is a unique tool for evaluating the market, highlighting the opportunities and supporting decision-making. Therefore, you could say that in five years the social commerce / social shopping market size would be between **\$180 billion and \$300 billion**.

AIMS AND OBJECTIVES

- 5) To study about the trending changes in Social Commerce.
- 6) To know and calculate about how Social Commerce works
- 7) To know whether there is really an optimum usage of Social Commerce.
- 8) To see the microasm of Social Commerce in Broader- perspective

Hypothesis:- Can the Optimum usage of Social Media can be really be a boon or a bane for the societal world... ???

Methodology:- The approach used in this research is Qualitative- Explanatory Research which is because of formulative methodology.

Data Collection:- The collection of Data was made through Secondary Data, which was collated from the published sources from the Books, Journals, Newspapers and internet resources.

DATA ANALYSIS

Facebook, twitter, Instagram and Pinterest are some of the platforms that drive the consumers focus via checkouts. It is like the communities that the buyers and the sellers use to discuss shopping experience and then compare transactions. Shopping in person has been a different experience, but by Social Commerce it is completely a different scenario. Social media commerce has come up with the use of excessive smartphones. For example, of the emerging social commerce start-ups, Meesho is one of the largest. It connects resellers directly with raw material suppliers and uses WhatsApp and Facebook among other social media platforms. A

majority of the resellers on Meesho are homemakers, small business owners, small boutique brands and those who sell art and craft, fashion wear, home and kitchen products, among other categories. Meesho, along with Shop101 and Glowroad, is one of few new e-commerce start-ups to attract investor attention after venture capital firms' interest in e-commerce companies started waning towards late-2015. It counts Sequoia Capital, SAIF Partners and Y Combinator among others as its investors and raised \$11.5 million in its Series B funding round in June. Meesho is also in talks to raise up to \$30 million from DST Global. These platforms appeal to both customers and sellers. Shop101, incorporated in 2015 by Abhinav Jain, is backed by Stellaris Venture Partners and Vy Capital, along with TaxiForSure's co-founder Raghunandan G. and Livspace's co-founder Ramakant Sharma. Jain, a B-Tech graduate from IIT Kanpur, said the company focuses on people who have very strong intentions of starting a business but limited means to do so. Thus Social commerce is popular in India too in today's 2020 scenes.

For making the app, of Social Commerce- based, some features are required , such as :-

- 1) Seekers (Buyers / Consumers)
- 2) Administrator
- 3) Providers (Individual users / Registered Businesses)
- 4) Registered Business Account

Necessities in the app

- Login and Registration
- Public-profile
- Follow other Profiles
- Create or join a Community / Group
- View Feeds and Notification

The business model of this social commerce concept is based on a simple, **three-step** mechanism-

Step 1: Putting a Request :- When a seeker (user) wants any product he will simply put a request for the product, there are a predefined set of product categories, which helps the app to simplify and organize the request from the seeker. Apart from categories there are set of predefined additional requests which he/she can make, for example, if a seeker wants a formal shirt, he/she will be able to choose, size, color, material or brand etc. and there is also an additional box to mention any other request apart from these predefined ones.

Step 2: Quoting Offer :- Once the seeker submits his/her request, a notification will be sent to all the relevant person, his followers, relevant community/groups, the Online retailers selling the product. Then the one who has a product or wants to sell the product will quote the offer with product image and attributes, even if someone wants to suggest a seller he can do that as well, the seeker will get a notification for every quote submitted by the provider.

Step 3: Placing Order :- Once the user gets all the quotes from friends, followers, online sellers, community members, he can choose any offer he wants and place the order with just click of a button. Next steps in the process depend on the revenue model chosen for this concept, there are many revenue models to choose which are mentioned in the following parts of the blog.

This Social Commerce Concept is a unique yet very simple and adaptable business model, you can even adopt the model for selling services. In the model business could have a unique business account where they get additional features like giving deals and offers, sponsored placement and more while the user gets multiple options and deals to choose from, the marketing managers can down-rightly market about their business, and the admin earns profit out of the customer satisfaction, so it is a win-win situation for everyone.

➤ Some of the Elements of Social Commerce are

Authority – There should be some authorised person in this transaction.

Community – When people find an individual or a group that shares the same values, likes, beliefs, etc., they find community. People are more committed to a community that they feel accepted within.

Liking – People trust based on the recommendations of others. If there are a lot of "likes" of a particular product, then the consumer will feel more confident and justified in making this purchase.

Scarcity – As part of supply and demand, a greater value is assigned to products that are regarded as either being in high demand or are seen as being in a shortage. Therefore, if a person is convinced that they are purchasing something that is unique, special, or not easy to acquire, they will have more of a willingness to make a purchase. If there is trust established from the seller, they will want to buy these items immediately.

Social proof – To receive positive feedback, a company needs to be willing to accept social feedback and to show proof that other people are buying, and like, the same things that I like. This can be seen in a lot of online companies

➤ Measurement of Social media sales

Reputation: indices measure the influence of social media investment in terms of changes to online reputation – made up of the volume and valence of social media mentions.

Reach: metrics use traditional media advertising metrics to measure the exposure rates and levels of an audience with social media.

Return on investment:- This measures the effect of action of social media sales

➤ Some of the Features of Social Commerce are

Content – The basic need to engage with customers, prospects and stakeholders through valuable published content on the web. Google is the organization that has been at the forefront of indexing and making findable content on the web.

Community – Treating the audience as a community with the objective of building sustainable relationships by providing tangible value.

Commerce – Being able to fulfill customers' needs via a transactional web presence, typically online retailers, banks, insurance companies, travel sales sites provide the most useful business-to-consumer services.

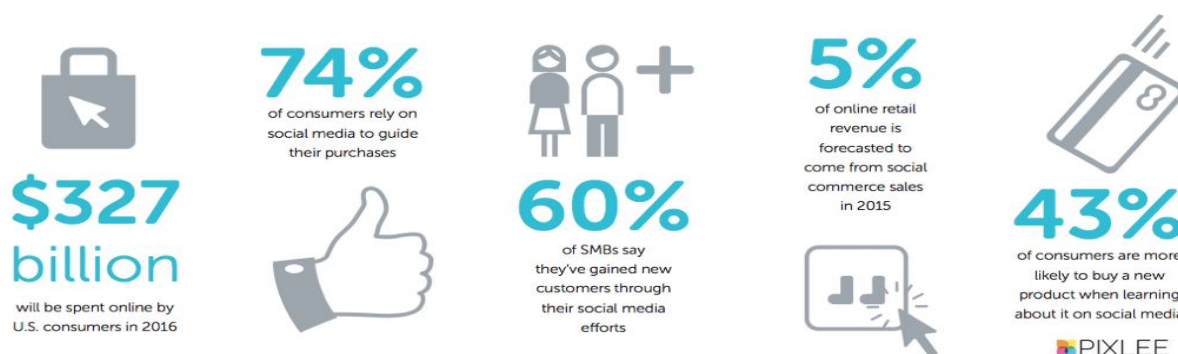
Context – The online world is able to track real-world events and this is primarily being enabled by mobile devices.

Connection – Professional, Social and Casual. The relationships, the scope of those relationships and the interactions between individuals are a basis for the actions of Social Commerce.

➤ Social Commerce can be categorized into – 2 types- Offsite and Onsite.

Onsite social commerce refers to retailers including social sharing and other social functionality on their website. Some notable examples include Zazzles, Macy's and Fab.com, to name a few.

Offsite social commerce includes activities that happen outside of the retailers' website. These may include Facebook storefronts, posting products on Facebook, Twitter, Pinterest, to name a few.



Here are some very important factors with regards to social – commerce :-

52 % digital marketers says that Social – commerce will be the biggest on-line trend in 2016.

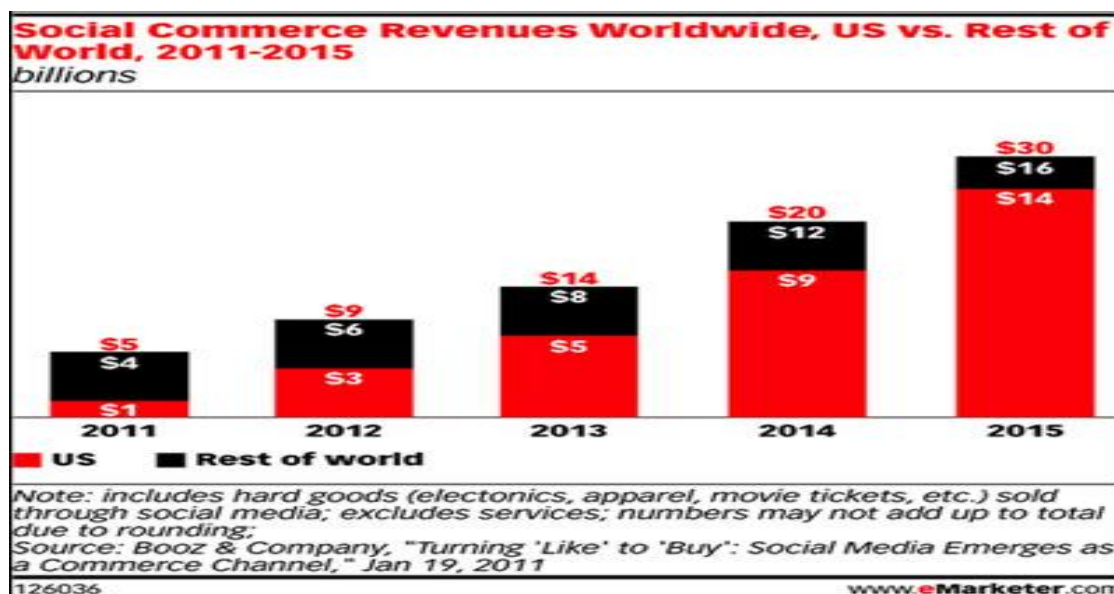
In the US, it's grown from 3 billion in revenue (2012) to 14 billion (2015) (eMarketer)

14 % digital consumers say that they have found new products through branded updates in their news feeds (Global Web Index)

47 % millennials consumers use social media during their shopping journey (Deloitte)

33 % consumers have acted on a promotion on brand's social media page. (Invesp)

71 % consumers are more likely to make a purchase based on social media referrals.



SUGGESTIONS

- Keep your landing page free, there should be no side-bar, no navigation menu or unnecessary text.
- Focus on opt-ins.
- Use Multiple CTA on Different places of the pages.
- Add credibility to your landing pages, by using testimonials, logos for various perspectives for safety reasons.
- Create a Definite plan for your Social media platforms or Social Commerce.
- Instal a good- plug-ins
- Add good softwares to your blogs to secure yourselves.
- Download some good social media – management tools.

CONCLUSIONS

- Social media has increased the ability to build customer loyalty.
- Better the social commerce game, better the customer experience and more loyal are the customers .
- There are repeated purchases after building new customer loyalties via Social commerce.
- Social Commerce is a virtual word-of-mouth marketing in today's global scenes.
- There has been a consistent audience growth if the products delivered are upto consumers likings
- The Comments, likings, sharing to a larger audience has made Social Commerce popular.
- There is a Customer- loyalty and retention when there is a deep bonding and trust in the Social Commerce startups.

Some of the **obstacles**- according to my perceptions can be, through the following points:-

- Social Media platforms are so cluttered, that sometimes it is difficult to target the customer.
- Sometimes, for the customer it is difficult to find the relevant product in social engine platforms.
- There can be unpleasant experiences due to seamless and reckless buying of the customers.
- Some of the Social Commerce media platforms can be less trustworthy, there cannot be uniformity in their transparent return and refund system.

To Conclude, an effective Social Commerce Strategy requires careful thinking between the social media content and the route that one devises for led- generation and sales. The pillars of the sales are High Quality content, User – engagement, credibility and a convenient payment process. If all the permutations and the combinations, goes right and are in snick, then there will be massive sales through your social media profiles in Social Commerce System. Hence, it can rightly be a boon or a bane, as to how we use Social Commerce in our midst.

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IMPACT OF ARTIFICIAL INTELLIGENCE IN BUSINESS INTELLIGENCE

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ABSTRACT

We're at the dawn of a new era in decision making made possible by the intersection of business intelligence (BI) and artificial intelligence (AI). AI will make BI more pervasive. The aim of the use of artificial intelligence in business is using the field of optimization where methods like minimization the costs and maximization the profit can be used. The artificial intelligence have had successful applications also in various business Field. Nowadays the new theories of artificial intelligence are used for raising profits in Business. When AI is infused in BI tools, it becomes easy for use, generate more useful insights, and make business users more productive, saving companies' time and money. With AI in BI, decision makers can focus on value-added activities and make decisions with data rather than rely solely on gut instinct with no need to replace human decision makers. The optimization when used in BI plays very important roles especially in business because it helps to reduce costs that can lead to higher profits and to success in the competitive fight.

Keywords: artificial intelligence, business data mining, decision-making processes

Our present situation is best characterized by the words of P. Drucker (Drucker, 1992): "Nothing is permanent, everything is changing. The change is the only thing that remains permanent! "As the proof here is that the management of great corporations, incapable to react properly and in time, frequently „gets under the thumb of the days “and quite often lost their position on the market. Economically, the „future “turned out for them quite differently, than expected.

However, even today, many companies have got through quite successfully. They are those, who have prepared their decision making management correctly and in time for their new plans, built them up on correct intelligence information and , eventually, realized them Artificial intelligence (AI) has the power to transform our world. Some believe that intelligent computer systems will eventually replace humans in many fields. Already, some hospitals use image recognition software to perform the work of radiologists.

Despite doomsday scenarios of robots replacing humans, the reality of AI is far different. True, some jobs will disappear, but most will be augmented by technology, making humans much more productive. Like almost all technology innovations before it, AI will automate routine and time-consuming work, allowing humans to do more with less.

AI-ENABLED BUSINESS INTELLIGENCE

Both common sense and the evolution seen in the data and analytics landscape suggest that stand alone BI is no longer the answer to the complex questions we face in a more uncertain world of business. To drive continued business excellence and competitive advantage in your industry, it is imperative that you move to paradigm where it is not enough to only leverage the huge data repositories available, but also exploit the full potential of data

This is where Artificial Intelligence (AI) is beginning to get embedded in the organizations and gradually evolving into math houses, powering better data-driven decisions that can help improve efficiencies, for years now. AI can help businesses exploit the full potential of their data. Beyond simply informing and prescribing decisions, AI can leverage the vast amounts of data available to us today and even train itself to uncover insights that can power better choices, leading to superlative business outcomes

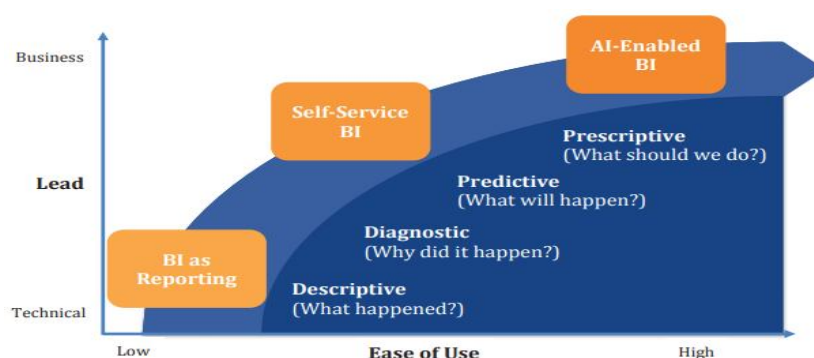


Figure-1: From Reporting to AI-Enabled BI

Where Does AI Fit in the BI Landscape?

Advancements in AI have led many established BI vendors to integrate AI capabilities into their products, improving accessibility and providing new features and functions geared toward business users and data analysts.



Figure-2: Types of AI-Enabled BI

AI for business users refers to features that use AI under the hood of a BI tool. For instance, BI vendors are enhancing their products with AI capabilities that make the tools easier to use and offer automated insights.

AI for data analysts refers to functions that enable data engineers and data scientists to prepare, create, and deploy analytic models within a BI tool.

AI Functionality for Business Users

Auto-charting: BI tools automatically display or recommend a chart type based on the underlying data. With machine learning, the tools can learn user preferences for associating chart and data types.

Auto dashboard creation: When fed a data set, usually an Excel file, the BI tool can automatically create a data model with metrics, dimensions, and hierarchies, and then build relevant charts and display them in a dashboard: This works best when users identify a key metric they want to focus on.

Natural language generation (NLG): Many BI tools have NLG plug-ins to automate the creation of text that explain significant findings in charts or entire dashboards. When users click to drill or pivot, the text changes dynamically.

Related reports and insights: Within a report, dashboard, or exploration canvas, BI tools can display links to related reports and charts that are generated dynamically using machine learning models and rules.

Chabot integration: Business users can interact with a Chabot or digital assistant to query data and receive results in written or spoken form.

Portal personalization: BI tools can use machine learning to understand the preferences of individual business users and customize a portal with reports and feeds to suit their preferences

AI Functionality for Data Analysts

Auto data typing. BI tools use a combination of statistics and heuristics primarily to automatically identify data elements as metrics, dimensions, keys, dates, locations, and hierarchies. They use rules to automatically distribute or format the elements in the data preparation module.

Auto data joins. Using identified keys, the tools link tables and specify types of joins to occur. Some tools can even identify relationships between non-relational data sets.

Auto data modeling. BI tools can identify relationships between tables (using keys and joins) and build a straw man data model to guide analysis and design work.

Auto formatting. With rules and machine-learning techniques, BI tools can identify formatting inconsistencies and recommend fixes. For example, they can identify null fields, inconsistent formatting (e.g., M/F and male/female), and out-of-range values. **Model Creation**

Create analytic data flows. Here, BI tools leverage data preparation features to incorporate analytic models—sometimes daisy-chaining algorithms to create complex data flows—to produce specific outcomes.

Create models and scripts. Rather than import external models or scripts, data analysts can build custom models inside the BI tool using custom data flows to create and run training and production data sets.

Rank models. Some BI tools will apply multiple models, rank them, and recommend the best one to use. The rankings can be based on simplicity, accuracy, and lift, among other things. **Model Management**

Model library. Some BI tools offer a library of models that data analysts can choose to run, including models supplied by internal data scientists and external partners and customers.

Deploy models. BI tools can display model findings and output in the form of reports and dashboards as well as provide an API to support the execution of models in other applications.

Document models. Some BI tools can document model configuration and findings, providing an explanation of how a model derived its results.

Monitor and manage models. When multiple data analysts create models, it's important that there is a central console for managing models and tracking their accuracy over time to ensure they are delivering business value.

Future of BI

In the future, AI-infused BI tools will go beyond just surfacing insights; they will recommend ways to address or fix issues, run simulations to optimize processes, create new performance targets based on forecasts, and take action automatically. Yes, machines will make some decisions for us—especially operational decisions in real-time environments. We see this today with fraud detection and online trading systems, but for strategic decisions, we need both machine and human intelligence. We still have a long way to go to achieve the promise of AI for BI. But development and innovation are moving more quickly than ever. Companies should begin preparing now for the shift to autonomous AI-enabled BI systems

CONCLUSION

AI is transforming BI, ushering in a third generation of BI tools. AI will make BI easier to use because it automates routine tasks and makes people more productive. AI will make BI more valuable because it accelerates time to insight and enables business people to converse iteratively with data. BI vendors are racing to implement AI capabilities.

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INTERNET OF THINGS

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ABSTRACT

IoT is considered as one of the Key enabling technologies for the industrial revolution.

IoT has quickly evolved to a new appified era where third party developers can write apps for IoT platforms using programming frameworks. This short paper likes to outline a brief idea of IoT, its advantages, disadvantages, sectors characteristics etc.

INTRODUCTION

The Internet of Things, also called the internet of objects, refers to a wireless network between objects, usually the network will be wireless and self-configuring, such as household appliances. It is no longer just a global network, but it is also a platform for devices to communicate electronically with the world around them.

The term Internet of Things, was first used by Kevin Ashton in 1999. It refers to uniquely identifiable objects and their virtual representations in an internet like structure.

IoT is a culture in which devices are interconnected through the data exchange between the world and technology.

IoT devices example – Washing Machine

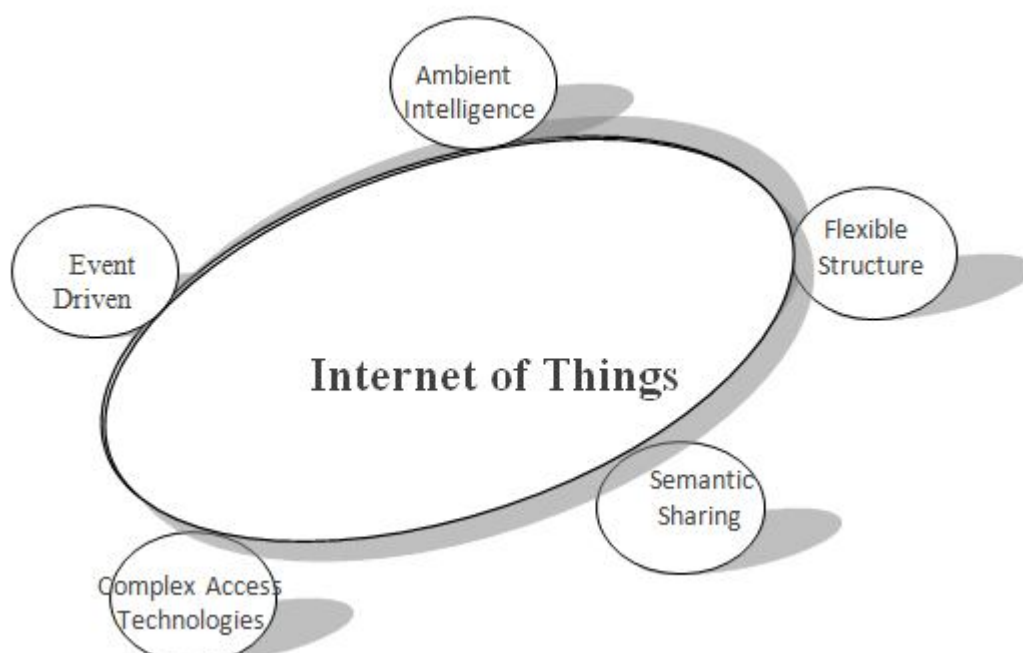
DUMB machine

- Operation
- Manually start the machine
- Start using timer
- Error Handling
- Error is displayed
- You search for Manual
- Understand Error Code
- Correct the Problem if possible
- Call Service Engineer is required
- Maintenance
- User has to monitor the usage and take action

Smart Machine

- Operation
- Start/stop anywhere (Smart Phone, PC)
- Error Handling
- Message on Smart phone about the error
- Smart Phone will direct you to fix the problem with the help of videos
- If the problem still persists, it will send message to the service provider
- Maintenance
- Machine monitor the parameters and plan for preventive maintenance.

Characteristics



IoT SECTORS

IoT affects many areas of day to day life, some are :-

Smart Homes

IoT technology is making the dream of a secure smart home a reality. IoT is addressing rising energy costs, sustainability and code compliance by connecting, managing and securing devices that collect data from core systems. Sensors and actuators manage a smart home with internet connection. A connected home has the following applications deployed in a smart home. Lighting control, energy efficiency, refrigerator network, automated meter reading, home security access control and security alerts, mobile, tablets, Wi-Fi and Internet, video-on-demand, video-surveillance etc. Intel-based intelligent gateway enables creation of a home automation system offered by service providers for mobile, cable, telephony, broadband and security.

Medical and Health

There are unparalleled benefits using this technology based healthcare method. The efficiency and quality of the treatments can be improved. Information exchange interoperability, machine to machine communication and data movement make healthcare service delivery more effective IoT helps in tracking patients, staff and inventory reduces emergency room wait time, enhances drug management and ensure the availability of critical hardware.

Fitness and Wellness

The machines can keep track of like diet / routines, workout routine progress over a time lifting patterns, repetitions and weight, vital stats of every individual and bodily activities. The functionality of fitness / wellness tracking has been simplified by incorporating smart devices and the applications that support them.

Industry & Factory

Digital connected factory machines can transmit operational information which will enable operators to remotely manage factory units and take advantage of process automation and optimization. A digitally connected unit helps a better time of commands. IoT sensors can actively monitor machines and send an alert when the equipment deviates from its prescribed parameters. By using such working environment for machinery the reduction costs, conservation in energy, elimination in machine down time and increase in the operational efficiency are ensured. The monitoring of production lines starting to end provides scope to recommend adjustments in for better management of operational cost. Thus eliminate wastes and unnecessary work in progress inventory. Effective monitoring by Key Performance Indicators (KPIs) ensures better safety, proper redressed health and environment. IoT device can provide data about the customer sentiments on using the product. Manufactures can gain an idea about the usage patterns and handling of product from the customers using IoT sensors in products and packaging for better result. IoT sensors can monitor the material flow, manufacturing cycle times and interdependencies. This reduces capital requirements.

IoT in Agriculture

IoT technologies will enable farmers to reduce waste and enhance productivity. A system can be built for monitoring the crop field (temperature, light, humidity, soil, moisture etc.) and automating the irrigation system. Use of IT and various items like sensors control systems, robotics autonomous vehicles, automated hardware, variable rate technology and so on make the farming practice more controlled and accurate. Precision agriculture is a famous application of IoT in the agricultural sector. Drones are being used in agriculture for crop health assessment, irrigation, crop monitoring, crop spraying, planting and soil and filed analysis. Drones benefits for integrated GIS mapping saving time, crop health imaging and potential to increase yields. A smart greenhouse designed with the help of IoT can monitor and control climate and environmental parameters according to the requirement.

AI: the autonomous and intelligent entities will act in full interoperability & will be able to auto-organize themselves depending on the context, circumstances or environment.

ED is to design the scheme depending on the need

FS means that hundreds and thousands of nodes will be disable and will be set to run.

CAT means that there's several kinds of media such as vehicle stone that they need different access technologies.

SS is the machine can rend and send by themselves. No need to tell humanbeings.

IoT ADVANTAGES

The advantages of IoT span across every area of lifestyle and business. Some advantages of IoT are

Communication & Information

IoT encourages Machine to Machine (M2M) communication. Without human intervention the machines are able to communicate with each other leading to faster and timely output. Through IoT, monitoring improve safety. The M2M interaction provides better results, efficiency and it saves valuable time. The amount of time saved in monitoring would be tremendous.

Financial Aspect

IoT technology can replace humans who are in charge of monitoring a maintaining supplier. Maximum energy and resources can be achieved by adopting this technology.

Data collection and Technology optimization

Modern data collection suffers from its limitations and design for passive use. IoT breaks it out of those spaces and places it exactly where humans really want to go to analyze our world. IoT allows an accurate picture of everything. IoT unlocks a world of critical functional and filed data.

Reduced Waste & improved customers engagement

IoT makes area of improvement clear. IoT provides real world information leading to more effective management of resources. Current analytics suffer from blind-spots and significant flows in accuracy: engagement remains passive. IoT transforms this to achieve riches and more effective engagement with audiences.

IoT Disadvantages

Though IoT facilitates a set of benefits it also creates a significant set of challenges. Some are given as

Privacy:- There is always the possibility of hackers breaking into the system and stealing the data. The sophistication of IoT provides substantial personal data in extreme detail without the user's active participation.

Security:- IoT systems are interconnected and communicate over networks. So there can be control despite any security measures. This leads the users to face various kinds of network attacks.

Complexity:- IoT system is quite complicated in terms of designing developing maintaining and enabling the large technology.

Super - Reliance on technology and electronic gadgets

More depend and entrust on internet and technology there are more chances to a lazy and physically inactive younger generation

Unemployment

Implementation of IoT leads to loss of jobs for unskilled employees who cannot cope with latest trends. With IoT daily activities getting automated and naturally there will be fewer requirements of human resources and staff, which will cause employment issue.

There are some major IoT problems for enterprises connecting to the IoT.

Walled off internet

The growing number of cross border attacks will start pushing national governments towards breaking up the internet in national or even regional "walled gardens". Some other pressures including economic protectionism, regulatory divergence and the loss of government power relative to global on line companies too will push them to do this. It becomes a major problem for the concept-and practice of a global IoT – leading to the erection of barriers to the flow of content and transactions.

Cloud Attacks

Cloud provides will be one of the major targets in this kind of was because a large amount of data is stored that will sum IoT. The annual economic cost of cybercrime is very high.

AI- Built Security issues

The complex, hyperconnected networks cloud providers have developed can produce a single point of failure for hundred of business, government entities, critical infrastructures and health care organizations.

Botnet problems

IoT botnets can direct enormous swarms of connected sensors like thermostats or sprinkler controllers to cause damaging and unpredictable spikes in infrastructure use leading to things like power surges, destructive water hammer attacks, or reduced availability of critical infrastructure on a city or state-wide level. The challenge of securing consumer grade sensors and devices remains, especially as they connect, in droves to our shared infrastructure.

Limited AI

Most of the current AI offerings on the market have substantial limits don't have much on human in terms of working out the complex phenomena of cause and effect, or to identify modifiable factors that can engender desired outcomes.

Lack of Confidence

Both consumers and business have serious concerns around IoT security and little confidence that IoT service providers and device manufactures will be able to protect IoT devices and the integrity of the data created, stored and transmitted.

Understanding IoT

It is a real issue, how to increase the ability for people to understand the changes and their implications more clearly and to take concrete actions to take advantage of the potential upside.

CONCLUSION

IT and control system manufactures are seizing the opportunity of having new novel hardware device as the IoT begins to scale up. More and more automation will be required for both the consumer and industrial environments since the number of devices are increasing day by day. Let's embrace the technology as a blessing instead of a curse and see the what will be in the future. IoT will surely contribute to the rise of economic opportunity. It is the one that aids the comfort, convenience and efficiency in the life.

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A STUDY ON SERVICE QUALITY ASSESSMENT OF RETAIL APPAREL BUSINESS

Kanchana Nikhil Sattur¹ and Dr. Vinita Pimpale²Research Scholar¹ and Research Guide², Commerce (Business Policy and Administration), R.A.Podar College of Commerce and Economics, University of Mumbai**ABSTRACT**

Retail sector is one of the emerging and largest private sector industry not just for the Indian economy but also for the world economy. Indian retail industry accounts for over 10% of the country's Gross Domestic Product (GDP). Retail Apparel Segment of Indian retail business is the second largest segment after food and grocery segment. Retail apparel businesses need to focus on service quality as a differentiating factor for survival and growth in this present competitive market. This gives rise to the need of assessment of service quality levels in retail apparel businesses.

Keywords: Apparel, Retail, SERVQUAL, Service Quality, Service Expectations, Service Perceptions

INDIAN RETAIL INDUSTRY

At present retail sector is one of the most attractive and emerging industry not just for the Indian economy but also for the world economy. It is the largest private sector industry in the global economy. Indian retail industry accounts for over 10% of the country's Gross Domestic Product (GDP). Indian consumption expenditure is expected to reach nearly US\$ 3600 billion by 2020 from US\$1824 billion in 2017. India is the fifth largest destination with respect to retail space. Indian retail market is estimated to grow to US\$ 1200 billion in 2021 from US\$ 672 billion in 2017. It has also been forecasted that Indian retail market will double in size over next three years. Indian ranks eleventh in the Foreign Direct Investment (FDI) Confidence Index. India is ranked first in Global retail Development Index 2017. As of 2017, the organised retail industry was estimated at 9% of total Indian retail industry. The organised retail market in India is growing at a CAGR of 20-25% per year. High brand consciousness, growing aspiration levels, growing working women population, increase in purchasing power, easy credit availability etc., have led to boost in organised retail business.

RETAIL INDUSTRY BUSINESS SEGMENTS

Indian retail industry can be broadly classified into seven major segments, namely Food and Grocery, Apparel, Jewellery, Consumer Durables and IT, Furniture and furnishing, pharmacy, footwear and other segments. Out of all these segments Food and grocery segment constitutes a major part of retail business in India. According to a report by Deloitte on Indian Retail Market January 2013, food and grocery segment is expected to account for 66 per cent of the total revenues in the retail sector, followed by apparel segment by the year 2020.

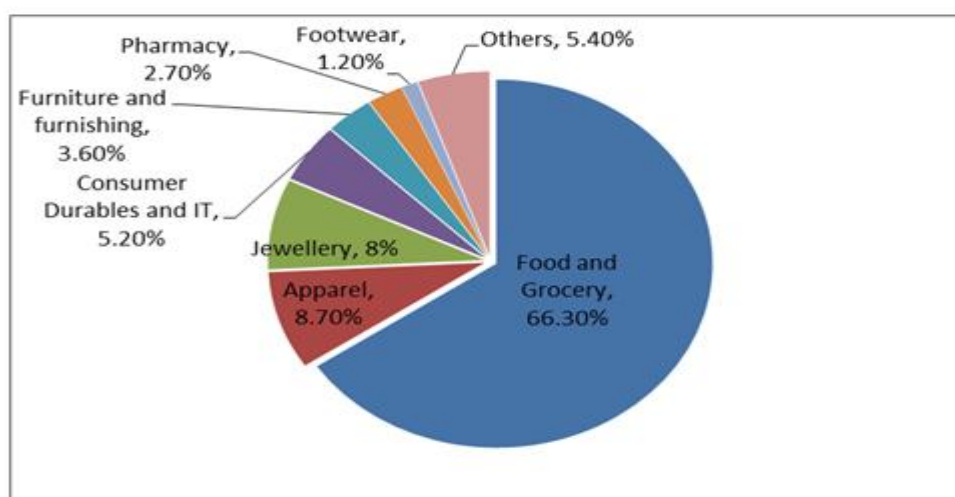


Figure-1: Retail Revenue FY2020E

Source - Technopak, Indian Retail Market January 2013, Deloitte, A Report on 'Changing trends: gems and jewellery industry' by Onicra

RETAIL APPAREL BUSINESS IN INDIA

Indian retail apparel business is the second biggest retail segment after food and groceries segment. Retail apparel industry in India is undergoing a massive change. The changing trends in the macroeconomic scenario, the favourable demographic dividend, retail specific policies, and consumer buying behaviour, are transforming

the fashion retail market. Entry of corporate players into the retail apparel business has contributed to the overall apparel business. This has induced greater consumer spending due to enhancement in product quality, reliable product specifications, and better management of store service levels. Entry of international brands, shift of preferences from non-branded to branded and large young consuming population has made retail apparel business very lucrative. Indian apparel market can be broadly classified into men's wear, women's wear and kid's wear. Men's wear contributes to 41% of the total apparel market. Women's wear and kid's wear contribute to 38% and 21% respectively.

LITERATURE REVIEW

Differentiation is now becoming the tool to attain competitive edge. But differentiation with respect to product offering, pricing, promotions and pricing (distribution) has now become increasingly difficult (Soloman et al., 2002). This has led to quality of service in retail setting to be a prime factor in achievement of competitive advantage. Berry stated that delivery of high service quality is a basic retailing strategy for competitive advantage (Reichheld, 2003). Service settings fall short on provision of tangibility factor which forms the base for assessment. Thus services cannot be assessed on physical qualities as in case of actual product setting which are tangible. Thus the retail setting or the store acts as the packaging for the services (Zeithaml et al., 2006).

This intangibility factor of services puts forth store environment as an important factor that impacts perceived quality and product value in the store (Baker et al., 2002). Thus arises the fact that customer's perception of experiences during purchase of a product or service becomes indispensable factor in determination of quality of service. In modern era, retail design becomes the factor to attain competitive edge (Soloman et al., 2002), as it has a profound impact on customer's experiences and thus on assessment of service quality.

Service quality has been defined as ,” a global judgement or attitude, relating to the superiority of the service” (Parasuraman, Zeithaml and Berry, 1988). (Vargo and Lush, 2004) defined service as, “the application of specialized competencies (knowledge and skills), through deeds, processes and performances for the benefit of another entity or entity itself”.

Many parameters or variables of service quality are not applicable to non-retail service experiences. These variables are customers, negotiations, finding of products to be bought, product return, interactions with store personnel etc. these variables influence the service quality experiences based on customer's evaluation. Thus measures of retail service quality have to capture additional dimensions which are different from pure service environment (Dhabolkar & Thorpe Joseph, 2001).

Managers and researchers, thus try to find and understand components of service quality and its dimensions' importance in determination of overall service quality with respect to customer expectations and experiences. Factors like time, technology, service type, environment etc. can change service quality outcome and its measurement (Seth and Deshmukh, 2005). Change in time as well as retail business settings compel service quality measurement tool adjustments. This leads to continuous learning, validation and modification of service quality concepts.

Service quality conceptual models would help companies in designing of quality improvement programs through identification of quality problems which in turn would help in achieving efficiency, profitability and enhanced overall performance of the store (Seth and Deshmukh, 2005).

Researchers have been thriving to design models and measurement tools for service quality. Out of these, SERVQUAL model is one of the foremost and widely accepted popular measurement tool developed in 1988 by Parasuraman et. al. to assess service quality. Many other service quality measurement tools have been designed on the basis of SERVQUAL model.

NEED FOR THE STUDY

At present retail sector is growing at a fast pace. This has made it very difficult for the retail businesses to survive and succeed in the cut throat competitive market. Retail businesses are constantly thriving to search ways and means to achieve customer satisfaction. One of the ways to achieve customer satisfaction is service quality. Retail businesses need to continuously assess their service quality levels and make improvements in the service areas that are weak and further strengthen the services areas in which they are strong. The present paper studies the service expectations and service perceptions of retail apparel business and also identifies the critical factors of service quality from customer's perspective.

OBJECTIVES OF THE STUDY

1. To study the Demographics Retail Apparel Customers

2. To identify the dimensions that impact service quality expectations and perceptions of Retail Apparel Business
3. To assess levels of service quality in Retail Apparel business
4. To ascertain whether there is a difference between service expectations and service perception for retail apparel business

METHODOLOGY

A structured questionnaire, SERVQUAL, (Zeithaml, Parasuraman and Berry, 1988) with some modifications was used to collect the primary data from 50 respondents from Mumbai suburbs. The city of Mumbai is one of the largest metropolitan cities in India and where multiple formats of Apparel businesses exist. The SERVQUAL model was modified and 29 items using 5 point Likert scale were used to measure service quality. The secondary data was collected from research journals, websites, books, research papers, reports and databases. SPSS 17.0 was used for data analysis.

DATA ANALYSIS

1. Demographic details

a) Age

AGE	Frequency	Percent
16 to 25 years	8	16.0
26 to 35 years	8	16.0
36 to 45 years	19	38.0
46 to 55 years	13	26.0
55 to 65 years	2	4.0
Total	50	100.0

b) Gender

Gender	Frequency	Percent
Male	15	30.0
Female	35	70.0
Total	50	100.0

c) Marital Status

Marital Status	Frequency	Percent
Single	12	24.0
Married	38	76.0
Total	50	100.0

d) Educational Qualification

Educational Qualification	Frequency	Percent
Non-graduate	5	10.0
Graduate	18	36.0
Post graduate	12	24.0
Professional	14	28.0
Others	1	2.0
Total	50	100.0

e) Annual Income

Annual Income	Frequency	Percent
Less than 5 lacs	18	36.0
5 to 10 lacs	19	38.0
10 to 15 lacs	5	10.0
More than 15 lacs	8	16.0
Total	50	100.0

f) Family Type

Family Type	Frequency	Percent
Joint	17	34.0
Nuclear	33	66.0
Total	50	100.0

Interpretation - Majority of respondents belong to the age group of 36 – 45 years and 46 – 55 years. 30% of the respondents are male and 70 % of the respondents are female. Majority of the respondents i.e. 76 % are married. 36 % of the respondents are graduate, 24 % are post-graduates and 28 % respondents are professionals. Around 36 % of the respondent's annual income is less than 5 lakhs and 38 % of the respondent's annual income is between 5 – 10 lakhs. Majority of the respondent's i.e. 66% belong to nuclear family.

2. Descriptive Statistics

a) Mean Values Of Service Expectations And Service Perceptions For Apparel Stores

	Minimum	Maximum	Mean	Std. Deviation
Mean- Expectations	64.14	100.00	83.4628	9.66274
Mean-Perceptions	53.10	100.00	78.2894	9.55140

b) Dimension Wise Mean Value, Minimum Value AND Maximum Value

SERVICE QUALITY DIMENSIONS	SERVICE EXPECTATIONS			SERVICE PERCEPTIONS		
	MEAN	MINIMUM	MAXIMUM	MEAN	MINIMUM	MAXIMUM
PHYSICAL ASPECTS	4.32	4.12	4.54	4.05	3.82	4.2
RELIABILITY	4.2	4.08	4.32	3.85	3.7	4.04
PERSONAL INTERACTION	4.18	4.02	4.38	3.93	3.62	4.42
PROBLEM SOLVING	4.07	3.9	4.22	3.69	3.54	3.76
POLICY	4.04	3.76	4.38	3.89	3.44	4.46

The above table shows the mean, minimum and maximum values of Service Quality Expectations and Service Quality Perceptions. Mean value is the average of all the items or factors under the particular dimension. Minimum and maximum values show the lowest and highest score of items under the specific dimension. Physical Aspects of service and Service Reliability are two most significant dimensions of service quality. Policy is the least significant dimension in case of service quality expectations whereas Problem solving is the least significant dimension in case of service quality perceptions.

3. Assessment of Service Quality levels

SERVICE QUALITY DIMENSIONS	SERVICE PERCEPTIONS (P)	SERVICE EXPECTATIONS (E)	SERVICE QUALITY GAP (P-E)
PHYSICAL ASPECTS	4.05	4.32	-0.27
RELIABILITY	3.85	4.2	-0.35
PERSONAL INTERACTION	3.93	4.18	-0.25
PROBLEM SOLVING	3.69	4.07	-0.38
POLICY	3.89	4.04	-0.15

As per SERVQUAL model, Service Quality is calculated as the difference between Service Quality Perceptions and Service Quality Expectations. The above table shows that there exists a gap between service quality expectations and service quality perceptions for all the service quality dimensions. The gap is largest for Problem Solving dimension as compared to other dimensions. This indicates that service quality perceptions of services experienced at retail stores do not meet the expectations to a large extent.

4. SCALE RELIABILITY TEST

For test of reliability of scale Cronbach Alpha Test is applied.

a) Scale For Expectations

Reliability Statistics	
Cronbach's Alpha	N of Items
.924	29

Above table indicates that there are 29 questions. Cronbach Alpha value is 0.924. It is greater than required value 0.70. Therefore Test is satisfied. Conclusion is scale for EXPECTATION is reliable.

a) Scale For Experience

Reliability Statistics	
Cronbach's Alpha	N of Items
.907	29

Above table indicates that there are 29 questions. Cronbach Alpha value is 0.907. It is greater than required value 0.70. Therefore Test is satisfied. Conclusion is scale for EXPECTATION is reliable.

5. HYPOTHESIS TESTING

H1 – There is a significant difference between service quality expectations and service quality perception in retail apparel business.

T-Test to test the null hypothesis.

Paired Samples Test						
	Paired Differences			t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
Mean - Expectations Mean- Perceptions	5.17340	7.05554	.99780	5.185	49	.000

The p-value is .000 which is less than 0.05. Thus the test is rejected. This means the difference is significant. Therefore, H0 – There is no significant difference between service expectations and Service perceptions is rejected. The alternate hypothesis is accepted. Thus it is concluded that there exists a significant difference between service expectations and service perception for retail apparel business.

CONCLUSION

Service quality for retail sector is indispensable. Services being intangible, it becomes imperative for retail businesses to provide high level of service quality. Indian Apparel Retailing business is the fastest growing and attractive segment after food and grocery segment. The study indicates that Physical Aspects of service and Service Reliability are two most significant dimensions of service quality that the retail apparel businesses need to focus upon. The study also revealed that there exists a significant difference between service quality expectations and service quality perceptions which the retail apparel businesses need to keep in account while designing services.

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EMERGING TRENDS OF INVESTMENT THROUGH MUTUAL FUNDS AND SYSTEMATIC INVESTMENT PLANS: INDIAN CONTEXT

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ABSTRACT

This research paper we have discuss the concept of mutual funds and different types of the funds along with NAV, Rupee-cost averaging. The various mutual mutual funds that are performing good in are listed with Large-cap, Mid-cap and Small-Cap Fund. The Mutual Fund Industry of India has seen major changes and has great potential to growth.

Keywords: Large –Cap, Mid –Cap, Small –cap, Mutual Fund, Systematic Investment Plan, Rupees-Cost Averaging, NAV, AMC.

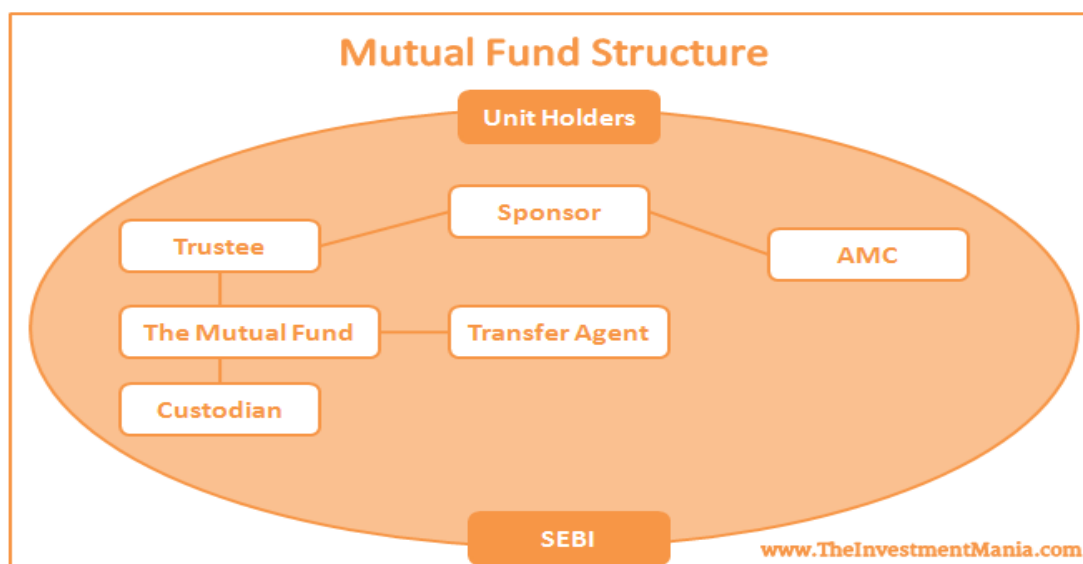
INTRODUCTION

The popularity of SIPs or Systematic Investment Plans has gone up in the last few years. Thanks to demonetisation, many individuals discovered the charm of SIP and mutual funds. Amfi's *Mutual Fund Sahi Hai* campaign also helped popularising the concept of SIP and mutual funds. However, many investors, including those who have already made SIP investments in mutual funds, are often confused about SIPs.

MUTUAL FUND

A mutual fund is an investment vehicle made up of a pool of money collected from many investors for the purpose of investing in securities such as stocks, bonds, money market instruments and other assets. Mutual funds are operated by professional money managers, who allocate the fund's investments and attempt to produce capital gains and/or income for the fund's investors. A mutual fund's portfolio is structured and maintained to match the investment objectives stated in its prospectus.

It's important to understand that each mutual fund has different risk and reward profiles. In general, the higher the potential return, the higher the risk of potential loss. Although some funds are less risky than others, all funds have some level of risk – it's never possible to diversify away all risk – even with so-called money market funds. This is a fact for all investments. Each mutual fund has a predetermined investment objective that tailors the fund's assets, regions of investments and investment strategies.



Mutual funds in India are regulated by the Securities and Exchange Board of India (SEBI). As running of a mutual fund involves managing of investors' money, SEBI prescribes a complete set of guidelines for operating the mutual fund (MF) through the "SEBI MF regulations 1996". These regulations designate that a mutual fund must be a three-tiered structure consisting of:

1. A Sponsor
2. A Trustee
3. An asset management company (AMC)

Sponsor

The Sponsor, is the main body that establishes the Mutual Funds. The Sponsor can be correlated to a promoter of a company. The duty of the sponsor involves appointing the trustees with the consent of SEBI and setting up an Asset Management Company under the Companies Act 1956 while making the trust registered with SEBI. As the Sponsors play the most vital role in the functioning of a mutual fund, SEBI has a set of stringent guidelines for the eligibility of a sponsor. Some of them are as follows: the sponsor should have a good track record of conducting business in the financial services field for not less than 5-7 years. A Sponsor also needs to have made profits in at least 3 of the 5 years including the latest year.

Trustee

In the structure of mutual funds, the foremost role of a trustee is to secure that the interest of the unit holders is shielded while making sure that the mutual fund complies with all the regulations of SEBI. Either, the sponsor should select four trustees or establish a trustee company with at least four independent directors. Additionally, at least two-thirds of the trustees or the directors should be independent not associated with the sponsor in any way.

Some of the important responsibilities of the trustees involve entering into an investment management contract with the AMC to define its functioning. Trustees are also accountable for ensuring that the AMC has all the necessary procedures, processes, and systems in place while ensuring that all the key persons such as the CIO, CEO, the fund managers and the analysts are selected after the due care.

Asset Management Company (AMC) : AMC's are the investment manager of the trust. They take care of the everyday operation of the mutual fund and managing the investor's money as well. The AMC is appointed either by the Sponsor or the Trustee after getting the approval of SEBI. The Asset Management Company consists of the Chief Investment Officer, analytics, and the fund managers, who are together responsible for managing the different schemes started. The compliance officer makes sure compliance of all the actions of the AMC are in line with SEBI's laws and regulations. For example; Axis AMC is the Asset Management Company for Axis Mutual Fund.

Custodian

He has the custody of the all the shares and numerous other securities purchased by the AMC. The custodian is responsible for safe custody of all the securities. The custodian is accountable for managing the investment account of the mutual fund.

Registrar and Transfer Agent (RTA) :

It maintains and updates all the investor's records. The primary function is investor servicing through its office and many other branches. Its functions involve processing of investor application, purchase and redemption transaction history by investors in different fund schemes and plans.

Auditors

The auditors are responsible for the auditing of the AMC's accounts while assuring that the accounts of schemes are maintained autonomously from that of AMC. The fund accountants are liable for calculating the NAV of the schemes based on the information about the assets and liabilities of every scheme.

Advantages of Mutual Funds

- **Professional Management** – The primary advantage of funds is not having to pick stocks and manage investments. Instead, a professional investment manager takes care of all of this using careful research and skillful trading. Investors purchase funds because they often do not have the time or the expertise to manage their own portfolios, or they don't have access to the same kind of information that a professional fund has. A mutual fund is a relatively inexpensive way for a small investor to get a full-time manager to make and monitor investments.

- **Diversification** – By owning shares in a mutual fund instead of owning individual stocks or bonds, your risk is spread out across many different holdings. The idea behind diversification is not to put all of your eggs in one basket – instead, spread investments across a large number of diverse assets so that a loss in any particular investment is minimized by gains in others. In other words, the more stocks and bonds you own, the less any one of them can seriously hurt your finances. Large mutual funds typically own hundreds of different stocks in many different industries. It wouldn't be practical for an investor to build this kind of a portfolio with a small amount of money.

- **Economies of Scale** – Because a mutual fund buys and sells large amounts of securities at a time, its transaction costs are lower than what an individual would pay for securities transactions. Moreover, a mutual

fund, since it pools money from many smaller investors can invest in certain assets or take larger positions than a smaller investor could. For example, the fund may have access to IPO placements or certain structured products only available to institutional investors.

- **Simplicity** – Buying a mutual fund is fairly straightforward. Many banks or brokerage firms have their own line of in-house mutual funds, and the minimum investment is often small. Most companies also have automatic purchase plans whereby as little as \$100 can be invested on a monthly basis. Brokers can also purchase any other listed mutual fund on behalf of clients.
- **Variety** – Mutual funds today exist with any number of various asset classes or strategies. This allows investors to gain exposure to not only stocks and bonds but also commodities, foreign assets, and real estate through specialized mutual funds. Some mutual funds are even structured to profit from a falling market (known as bear funds). Mutual funds provide opportunities for foreign and domestic investment that may not otherwise be directly accessible to ordinary investors.
- **Transparency** – Mutual funds are subject to industry regulation that ensures accountability and fairness to investors.

Disadvantages of Mutual Funds

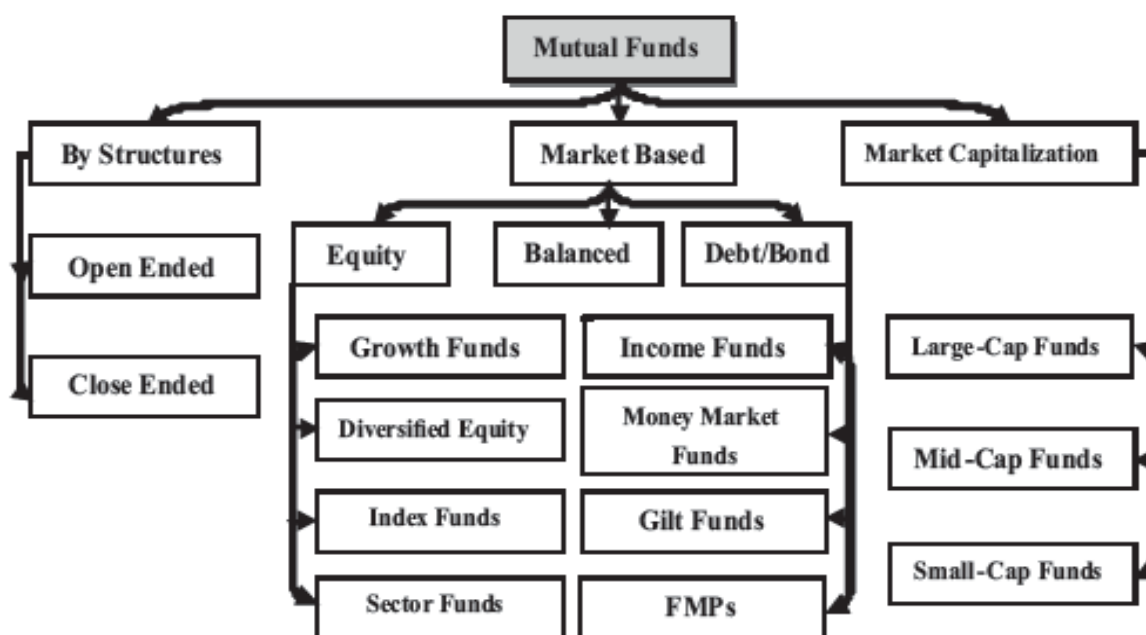
- **Active Management** – Many investors debate whether or not the professionals are any better than you or I at picking stocks. Management is by no means infallible, and, even if the fund loses money, the manager still gets paid. Actively managed funds incur higher fees, but increasingly passive index funds have gained popularity. These funds track an index such as the S&P 500 and are much less costly to hold.
- **Costs and Fees** – Creating, distributing, and running a mutual fund is an expensive undertaking. Everything from the portfolio manager's salary to the investors' quarterly statements cost money. Those expenses are passed on to the investors. Since fees vary widely from fund to fund, failing to pay attention to the fees can have negative long-term consequences. Actively managed funds incur transaction costs that accumulate over each year. Remember, every dollar spent on fees is a dollar that is not invested to grow over time.
- **Dilution** – It's possible to have poor returns due to too much diversification. Because mutual funds can have small in many different companies, high returns from a few investments often don't make much difference on the overall return. Dilution is also the result of a successful fund growing too big. When new money pours into funds that have had strong track records, the manager often has trouble finding suitable investments for all holdings the new capital to be put to good use.
- **Liquidity** – A mutual fund allows you to request that your shares be converted into cash at any time, however, unlike stock that trades throughout the day, many mutual fund redemptions take place only at the end of each trading day.
- **Taxes** – When a fund manager sells a security, a capital-gains tax is triggered. Investors who are concerned about the impact of taxes need to keep those concerns in mind when investing in mutual funds. Taxes can be mitigated by investing in tax-sensitive funds or by holding non-tax sensitive mutual fund in a tax-deferred account, such as a 401(k) or IRA.
- **Cash Drag** – Mutual funds require a significant amount of their portfolios to be held in cash in order to satisfy share redemptions each day. To maintain liquidity and the capacity to accommodate withdrawals, funds typically have to keep a larger portion of their portfolio as cash than a typical investor might. Because cash earns no return, it is often referred to as a “cash drag.”

NAV: Net Asset Value

Definition: Net asset value (NAV) is the value of a fund's asset less the value of its liabilities per unit.
$$NAV = (\text{Value of Assets} - \text{Value of Liabilities}) / \text{number of units outstanding}$$

Description: NAV is often associated with mutual funds, and helps an investor determine if the fund is overvalued or undervalued. When we talk of open-end funds, NAV is crucial. NAV gives the fund's value that an investor will be entitled to at the time of withdrawal of investment. In case of a close-end fund, which is a mutual fund with fixed number of units, price per unit is determined by market and is either below or above the NAV.

Types of Mutual Fund



Systematic Investment Plan(SIP).

A SIP is a planned approach towards investments and helps you inculcate the habit of saving and building wealth for future. A Systematic Investment Plan (SIP) is a smart and hassle free mode for the investor to invest a certain pre-determined amount at a regular interval(Monthly, Weekly and Quarterly).

A SIP is a flexible and easy investment plan. Your money is auto-debited from your bank account and invested into a specific mutual fund scheme. You are allocated certain number of units based on the ongoing market rate (called NAV or net asset value) for the day.

Every time you invest money, additional units of the scheme are purchased at the market rate and added to your account. Hence, units are bought at different rates and investors benefit from Rupee-Cost Averaging and the Power of Compounding.

Rupee-Cost Averaging

With volatile markets, most investors remain skeptical about the best time to invest and try to 'time' their entry into the market. Rupee-cost averaging allows you to opt out of the guessing game. Since you are a regular investor, your money fetches more units when the price is low and lesser when the price is high. During volatile period, it may allow you to achieve a lower average cost per unit.

Power of Compounding

Albert Einstein once said, "Compound interest is the eighth wonder of the world. He who understands it, earns it... he who doesn't... pays it." The rule for compounding is simple - the sooner you start investing, the more time your money has to grow.

Example

If you started investing Rs. 10000 a month on your 40th birthday, in 20 years time you would have put aside Rs. 24 lakhs. If that investment grew by an average of 7% a year, it would be worth Rs. 52.4 lakhs when you reach 60

Benefits of SIP

- **Long-Term Gains** – Due to rupee-cost averaging and the power of compounding SIPs have the potential to deliver attractive returns over a long investment horizon.
- **Easy to do investment** without any knowledge of investment in market.
- **Convenience** – SIP is a hassle-free mode of investment. You can issue a standing instruction to your bank to facilitate auto-debits from your bank account.
- **Disciplined Saving** – Discipline is the key to successful investments. When you invest through SIP, you commit yourself to save regularly. Every investment is a step towards attaining your financial objectives.

- **Flexibility** – While it is advisable to continue SIP investments with a long-term perspective, there is no compulsion. Investors can discontinue the plan at any time. One can also increase/ decrease the amount being invested.

Top 10 Best Mutual Funds for SIP to invest in 2018								
Category	Mutual Fund Scheme	Crisil Rank	Value Research Rating (Out of 5)	Assets under Management (AUM) (Rs Crores)	3mth	1yr	3yr	5yr
Large cap	SBI Blue Chip Fund	Rank-1	5 Star	15,570	2.6%	11.5%	13.2%	18.3%
Large cap	Aditya Birla SL Frontline Equity Fund	Rank-2	4 Star	18,948	3.4%	15.0%	12.8%	17.7%
Large cap	ICICI Pru Focused Bluechip Equity	Rank-3	4 Star	14,337	5.0%	17.5%	11.7%	16.3%
Mid-capSmall-ca	Reliance Small cap Fund	Rank-2	3 Star	4,372	5.4%	31.3%	21.0%	30.0%
Mid-capSmall-ca	Mirae Asset Emerging Bluechip Fund	Rank-1	5 Star	4,305	3.6%	25.3%	23.7%	29.6%
Mid-capSmall-ca	Franklin India Smaller Cos	Rank-3	5 Star	6,161	4.1%	18.2%	20.0%	30.0%
Diversified	Franklin India High Growth Cos fund	Rank-3	5 Star	6,851	1.0%	14.4%	13.5%	22.0%
Diversified	Kotak Select Focus Fund	Rank-1	4 Star	13,492	3.6%	18.0%	16.5%	20.0%
Hybrid/Balanced	ICICI Pru Balanced Fund	Rank-2	4 Star	18,097	2.4%	15.0%	13.1%	18.0%
Hybrid/Balanced	HDFC Balanced Fund	Rank-1	4 Star	14,767	2.0%	15.2%	13.5%	17.7%
Data source: Moneycontrol.com and Value Research Online as on 1-Oct-2017. Returns rounded off to nearest %age								

Large Cap Mutual Funds : Large cap funds are those funds which invest a larger proportion of their corpus in companies with large market capitalization. Trustworthy, reputable and strong are three adjectives that are often used to describe a large-cap Company. e.g Kotak Bluechip Fund. 10.83% 13.52% Invest, Mirae Asset India Equity Fund. 16.29% 18.51% Invest, SBI Bluechip Fund. 10.55% 15.16% Invest.

Mid Cap Mutual Funds

Mid-caps are those that they lie between large-caps and small-caps in terms of company size. During a bull phase, mid-cap stocks may outperform their large-cap counterparts, as these companies seek to expand by looking out for suitable growth opportunities. Investors should, however, note that the underlying stocks are more volatile than their large-cap counterparts. Mutual funds that mainly invest in mid-cap entities are labeled mid-cap funds. Through prudent stock selection, diversification across sectors, and market timing, fund managers aim for better returns.

Mid-cap equity funds are advised for investors with a higher risk tolerance than large-cap investors. So, invest in these schemes if you seek higher capital appreciation, albeit with reasonably higher risk. e.g of Mid-Cap Fund

Fund Name	Returns		
	1 year	3 year	5 year
Canara Robeco Emerging Equities Fund-Regular Plan	14.59	18.75	31.21
Mirae Asset Emerging Bluechip Fund-Regular Plan	13.99	20.42	30.94
L&T Midcap Fund	19.61	20.94	30.70

Small-cap Equity Funds are those which invest in equity shares of companies which have smaller capitalization and listed under the 250th rank of the underlying benchmark.

e.g of small cap fund.

Fund Name	Returns		
	1 year	3 year	5 year
HSBC Small Cap Equity Fund	19.5	17.88	28.81
Franklin India Smaller Companies Fund	14.62	17.55	30.64
DSP BlackRock Small Cap Fund	9.02	18.99	33.66

CONCLUSION

Looking at the last few years developments and recent trends it can be concluded that the future of Mutual Fund and SIP in India has lot of more positive. The mutual will grow at high rate and doing well. Few basic rules of mutual fund one should keep in mind if one wants to earn high return with less risk that we should invest regularly, Invest for a long time and start from early stage. Investors who are following rules will help them to reap good return in the future from what they sow in the past.

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COMPARATIVE STUDY OF TOTAL COST, REVENUE & PROFITABILITY OF SUB-DISTRIBUTORS OF DAIRY BUSINESS IN THANE CITY

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ABSTRACT

The growth of any business is totally dependent on its profit. If business earns good profit then it indicates that business operates at the optimum level. But some of the businesses which are related to our day to day life like dairy firms, business of production of milk and milk products e.g. cheese, butter etc., suffer from low rate of profitability.

In the past, dairy business was one of the main occupations of many families in India. The growth of the economy and population has led to the positive developments in the dairy business. For example, milk which was distributed in loose containers, then later sold in bottle and nowadays in bags.

This has increased the distribution areas, further consumption of other source for the same like transportation, maintenance etc. Thus there is an increase in prices of milk. This paper summarizes the result of how the sub-distributors continue their business with low profitability and high cost which includes physical labour too. The rate of profit is very low as compared to its turnover. In olden days the rate of commission was 10% to 15% and nowadays has reduced to 1% to 2%.

INTRODUCTION

In day to day life, the basic needs of human being are food, clothing and shelter. The primary need of everyone is food. But now a days, there is lot of pollution in environment, so everyone wants to eat healthy food to maintain themselves. Milk is also considered as one of the healthy foods.

In olden days, there was no need to purchase the milk from outside. Everyone had their at least own cattle. They did not know the commercial activities processing and distribution. If anyone did not have any cattle then they got the milk by barter exchange.

Prior to 1850's due to lack of transportation and other facilities, most of milk was used only for personal consumption and the remaining milk was wasted or was be distributed to near by markets or to people in the locality.

But now a days, due to technological development in all areas it is possible to transport the milk anywhere at any time.

At present the procedure for distribution of milk is undertaken by

1. Dairy firms
2. Distributors
3. Sub- distributors

Dairy Firms: The milk collected from cows and buffalos is stored in a proper place. As per the requirement, the stored milk is processed. Due to processing, it does not get spoiled easily. During the process the excess fats are also removed from the milk. Then it is packed in different bags and the Distributor gets the delivery of that milk in bulk quantity from the dairy firm. The delivery process happen at night i.e. generally midnight.

Distributors: After taking delivery of milk from the dairy firm, it is distributed to different sub-distributors as per their requirement. This process normally takes place in the morning i.e. around 3.00 am to 4.00am.

Sub- distributors: After getting the delivery of milk from distributors, the sub-distributors distribute the milk to customers at their door step as per their requirement. Their works began from 5.00 am everyday.

Due to this procedure, customers easily get the delivery of milk on time.

During the above process, the sub-distributors suffer from various problems which are related to employees, leakage of milk bags etc.

Sub-distributors total cost includes the various expenses like employees salary, transportation cost, refrigerator cost- electricity cost, fringe benefits for employees, repairs and maintenance cost of vehicles and refrigerator and so on. After deducting the above expenses from commission the sub-distributors gets a very low amount of profit.

The sub-distributors gets commission on their sales, which is very low. So, the main revenue of the sub-distributors is only the commission. From commission the sub-distributor deduct total cost and finally whatever amount is remain it is his profit.

LIMITATION OF THE STUDY

Due to time limit, the researcher has conducted survey up to limited area in Thane City. In Thane City, the researcher selected 10 sub-distributors as respondents for the study.

OBJECTIVES OF THE STUDY

1. To study the profitability of sub-distributors in Thane city.
2. To study the problems faced by sub-distributors in Thane city.

RESEARCH METHODOLOGY FOR DATA COLLECTION

To minimize errors in data collection, the researcher has conducted the survey by preparing a questionnaire, interview (personal interview/ telephone interview, structured and unstructured) methods of data collection. It includes area of study, participation of the study, methods of data collection and sample design.

- Respondents - 10 Sub-distributors
- Area of the study – Local area of Thane City (Maharashtra).
- Interviewees of the study – Sub-distributors of dairy business.
- Data collection – The researcher has used both the methods of data collection. Primarily – primary data is used and to the some extent secondary data.
- Primary data - For the collection of information through primary data. 10 Sub-distributors of dairy firms from thane city (local area) were selected. A questionnaire is prepared for sub-distributors. The personal interviews have been conducted or sometimes telephone interview have also been taken.
- Secondary data – The secondary data is collected from various published books, internet (different websites related to dairy business)
- Sample design – The sample size is selected on random basis. The researcher selected 10 samples for the study as representative sample of the universe.

The researcher has tried to collect maximum information through the questionnaire of sub-distributors of dairy business. Some of the questions included in the questionnaire like –

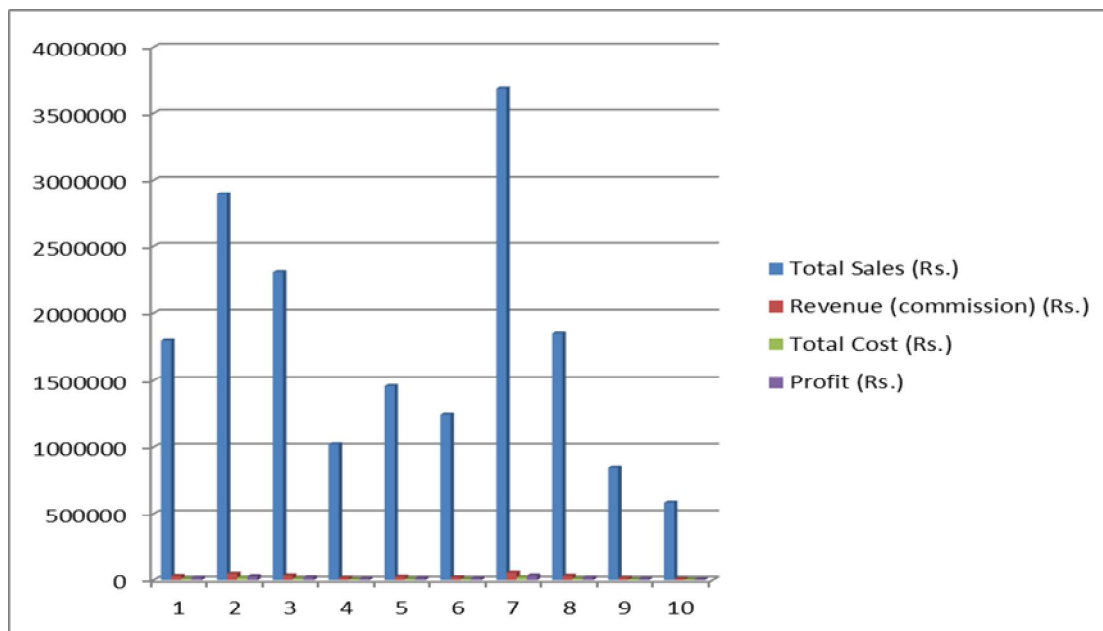
- Name of sub-distributor
- Date of establishment
- Amount of capital invested
- Amount of working capital
- Total sales (Monthly Turnover)
- Total Revenue (Commission)
- Total Expenses like employees salary, transportation cost, refrigerator cost- electricity cost, fringe benefits for employees, repairs and maintenance cost of vehicles and refrigerator, etc.
- Problems faced by sub – distributors.

Analysis & Interpretation of the data – It deals with the presentation, analysis and interpretation of collected data, the sales turnover, total cost and profitability.

TOTAL SALES, REVENUE AND PROFIT OF SELECT SUB-DISTRIBUTORS

Sr. No.	Total Sales (Rs.)	Revenue (commission) (Rs.)	Total Cost (Rs.)	Profit (Rs.)
1	1793850	30360	12100	18260
2	2893950	47780	18900	28880
3	2309850	34675	13600	21075
4	1022175	17890	6400	11490
5	1460250	24800	9900	14900

6	1247850	21900	8400	13500
7	3690450	55310	21600	33710
8	1845225	31760	12300	19460
9	849600	16950	5800	11150
10	584100	10520	3700	6820



PRESENTATION OF REVENUE & PROFIT

SR. NO.	REVENUE (COMMISSION)	PROFIT
1	1.69%	1.02%
2	1.65%	0.99%
3	1.50%	0.91%
4	1.75%	1.12%
5	1.70%	1.02%
6	1.76%	1.08%
7	1.50%	0.91%
8	1.72%	1.05%
9	1.99%	1.31%
10	1.80%	1.17%

Interpretation of the Data

From the above analysis of the data of 10 Sub-distributors in dairy business in Thane City. The data can be interpreted as follows :

- The sub-distributors are engaged in different types of milk and milk products.
- The sub-distributors always try to increase the sales as far as to increase the commission.
- Sub-distributors are gets only 1.5% to 2% commission on sales.
- After deducting total cost from commission sub-distributors hardly get net profit of only 1%.

FINDINGS OF THE STUDY

1. Day to day there is an increase in prices of milk.
2. The profit margin is very low as compare with the turnover of the business.
3. The Sub-distributors faces different type of problems like employment, leakage of milk, spoilage of milk.
4. Sub- distributor does not get any financial security.
5. They did not get finance easily to grow their business.
6. Sub- distributors gets very low rate of return with compare to their hardwork.

SUGGESTIONS**The future policy implication of the present study as follows**

1. The sub-distributor should get loan or financial help so that they can expand and modernize their business.
2. Take proper care while handling of milk to avoid leakage of milk bags.
3. Adopt technology for distribution to avoid spoilage of milk during transportation.
4. Measures to be taken to reduce the cost or to control the cost.

CONCLUSION

Milk is also considered as basic need, it very important to maintain us healthy. The sub-distributor also try to grow their business which helps them to increase their profitability. The sub-distributor also follow the basic system of cost control to minimize the total cost which also helps to increase the profitability.

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ROLE AND BEHAVIOUR OF WOMEN IN PURCHASE DECISION MAKING

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ABSTRACT

Women are most powerful consumers in the world, as they control almost 80 percent of the household spending. No doubt when it comes to individual buying, women are the sole decision makers. But they also act as great influencers, when it comes to buying decision of the family. Economic dependence, improvement in education and awareness, work oriented lifestyles, changing social norms, increased participation in the workforce and society have led to an enhancement in the role of women in the family purchase decision making process. John Gray's 1992 book "Men Are From Mars, Women Are From Venus" confirmed what men and women have always known: The two sexes differ in their perspectives, motives, rationales, and actions. The objective of this research is to explore the role of females in the family purchase decision making process. In this paper, an attempt is made to understand the differences in the opinion between male and female, when it comes to make purchase decision for family.

INTRODUCTION

India is a diverse country with different cultures, cast and creed. Therefore, the choice is also differ from person to person. Today, the consumption is no more a process due to the need of consumers but, in accordance with the wishes of consumers it has become an evolving process. Therefore in marketing, consumer behavior plays a very important role. Woman being the key household figure in the Indian society forces the researcher to study the role of women in purchase decision making process in a family. Family members may have different roles to play in making decisions within the family. They may initiate demand or contribute information, and they may decide on where to buy, when to buy, what to buy, which brand and style to buy, how to pay for the product, how to consume the product and how to act in maintaining the product. Marketers examine the attitude and behaviour of the member of the family whom they believe in to be the major decision maker. Today women are more autonomous in their judgment. Today Women become decision makers because they have gained the economic and emotional freedom. Now a day's both husband and wife are working which increases their income and discretionary income too (Arora, 1995). As such role of women doesn't remain same as it was earlier. Today the women take active part in the family buying decision. She is the key aspect in all purchase decisions of the family. She has turned out to be active participant in family buying decision. She has acquired a place in the society by virtue of her education and employment (Webster, 1995) Indian manufacturers realized the need of her support and hence communicate with her and try to convince her through every possible media. They plan the marketing strategy to attract this segment, satisfy their needs and requirement and try to retain them by every possible means.

OBJECTIVES OF THE STUDY

1. To find out the role of women in purchase decision making.
2. To study the influence of women socio-economic factor in the purchase decision.

REVIEW OF LITERATURE:

According to Simonson et al (2001), one of the most essential and influential areas within consumer buying behavior is the consumer decision making process.

Kulkarni and Murali (1996)³³ in the study on purchasing practices of consumers of Parbhani town observed that majority of the household's purchases were done by the husband and wife jointly. Most of the consumers preferred quality of the goods, while purchasing on cash payment method; and brought the goods from retail outlets.

Skinner (1990)³⁴ notes that when a consumer purchases an unfamiliar expensive product he/she uses a large number of criteria to evaluate alternative brands and spends a great deal of time seeking information and deciding on the purchase. The type of decision making used varied from person to person and from product to product.

RESEARCH METHODOLOGY

Descriptive in nature based on secondary data, has been collected from various websites, books, research articles.

WOMEN CONSUMER

In earlier times, women possessed no right in any field. Only men made decisions. Women were treated as having no right, but now the scenario has changed. Along with men, women are also stepping out on equal footing. About more than 75% of purchases of a family is being made by women. Their position and status have come up, and are still coming up. Women consumers while shopping, wander from shop to shop. They are keen in style, colour, beauty and economy in purchasing. They look and compare the products with other products. They always compare the quality and the price of similar products. They take time in inspecting the products and in making a decision whether to buy or not. They are conservative. They expect more products for less money. They may go even for comparison, after the purchase is made. They try to find difference in products purchased comparing them with the products purchased by a neighboring woman. They want a superior position

BUYING BEHAVIOUR OF WOMEN

The profile and role of the woman has been undergoing significant changes. Today, she is educated and in many cases she is employed too. The percentage of working woman has actually been growing steady pace. Their purchasing power has increased: thus the demand for product categories like cosmetics, package foods, beverage, two-wheelers, holiday packages etc. are of great appeal to them. In urban parts, the middle class woman is an active partner in the family. She is no longer confined to the four walls of the kitchen. She has acquired a place in society by virtue of her education and employment. She is a major factor in all purchase decisions of the family. She is practically the sole decision maker. Her role is main in purchasing-decisions. She is the cashier and budgeter. For several products, she is the 'gate-keeper'. New items cannot an entry into the house without her consent and clearance. Purchases meant for children too are mostly decided by her. Whether she works at corporate sector in city or self employed in village, women are becoming independent. So it becomes very important for marketers to study buying behavior of women consumer.

CHARACTERISTICS OF WOMEN CONSUMER**Cautious buyer**

The women are generally a cautious buyer. She is willing to try new things. She is not opposed to change. But she does not adopt any product instantly. She may do a sample purchase: she enquires with somebody who has known the product: she may listen to advertisements of the product: she decides to purchase only if she is fully satisfied. The women are quality conscious as well as cost conscious buyer. She has often crosschecks the price details with other stores. She bargains, she compares one brand with another on price and quality.

Follow specific budget

She has a tight family budget to follow and within this budget, she develops her own preferences whether it is baby; food, cooking medium, tea or coffee, cosmetics or readymade garments etc.

Sense of beauty

Generally women are fashion lover. She finds out what product or brand will suit her grooming needs. While choosing products like soap, shampoo, face cream or moisturizer, perfumes, hair oil, she pays due attention towards her beauty. She is greatly influenced by the products appeal to her sense of grooming.

Information Seeker

Women generally seek information about the products which she is likely to purchase.

She finds out what product or brand her neighbour or friend is using. She always gets direct information from an existing 'user' about the product.

Give preference to durable goods

Time saving appliances hold out great charm to her. She prefers for gadgets like electric grinders, washing machine, dish-washers, pressure-cookers, microwave ovens, vacuum cleaner etc. As they reduce her workload and save her time to a great extent.

BEHAVIOUR OF WOMEN AS A SPOUSE IN PURCHASE DECISION

A family is considered to be the basic decision making unit as regards purchases. The decision to purchase a commodity or service is generally combined but every family member is going to influence the decision most. The behaviour of spouse has multidimensional, because it highly depends upon the size of the family unit, age gap between them, social background of the spouse, working designation, the risk associated with the particular decision and above all the mindset of the family towards the traditional role of women.

BEHAVIOUR OF WOMEN AT AN EDUCATIONAL LEVEL IN PURCHASE DECISION

Education sharpens the mind and shapes the personality of an individual. It also creates awareness and helps to take right decisions. Education level of females has a significant influence in their purchase decision. As the education level of females increases so does their ability to take decisions on their own.

BEHAVIOUR OF WOMEN AS AN ENTREPRENEUR IN PURCHASE DECISION:

Women have owned and operated businesses for decades, but they were not always recognized or given credit for their efforts. Often women entrepreneurs were "invisible" as they worked side by side with their husbands, and many only stepped into visible leadership positions. Female entrepreneurs are said to encompass approximately 1/3 of all entrepreneurs worldwide. In India, women hold 25% of the white-collar jobs in sectors like IT, ITES, Pharmaceutical, biotechnology, market research, financial services, advertising, marketing and media. Increasing financial power, has a greater discretionary income and utilizes it to satisfy wants that have gone beyond these two to include holidays abroad, personal vehicles, electronic goods etc. her criteria for family purchases have been modified by her increased exposure to various new ideas and information, and by her new role as a facilitator.

BEHAVIOUR OF WOMEN AND RELIGION IN PURCHASE DECISION

Religious differences may influence customers in terms of their seasonality of purchases guided by their festival dates, which is a visible manifestation of influence on items of purchase and gifts. Women belonging from different religion play a great role in buying decision. Their buying pattern differ from religion to religion.

TYPE OF WOMEN AS DECISION MAKER

Sr. No	Factor	Score	Rank
1.	I am self confident	156	I
2.	I am independent	140	II
3.	I have good knowledge	138	III
4.	I am educated	136	IV
5.	I have economic freedom	135	V
6.	My choice always be good	132	VI
7.	I am working	125	VII
8.	Have money on own	124	VIII
9.	I am dominant	117	IX

Source: Secondary Data

International Journal of Management and Social Science Research, Volume 1

EXPLANATION

It can be identified that the women who are 'self confident' take final decision of purchasing as it scores the highest. Second rank is scored by the factor 'independence' in taking decisions. The women having 'good knowledge' about the product and if they are 'educated' they have the highest score for taking purchase decision as it scores the third and fourth rank respectively. Similarly, if women have 'economic freedom' they get the scope of taking final purchase decision.

CONCLUSION

Women are vital part of buying behaviour. It has been found that women are more involved with the purchasing activities. They are more price conscious, beauty admirer, initiator, influencer, etc. So the marketers need to give due attention to the buying habits of women. They may initiate demand of various products. Their buying pattern can affect the demand of various goods and services.

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ROLE OF TECHNOLOGY IN TRANSFORMING INDIA

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ABSTRACT

The Liberalization, globalization & privatization the pulse of Indian reforms has become faster. Technology, appliances and gadgets are reforming daily life. Computer, internet, smartphone are penetrating reforms to all the parts of the society. Various features are transforming education in India. Different types of Role of Technology is transforming India like rational use of technological means, Pro-active media, Entrepreneurship, Health Awareness, Social Interaction, cyber security awareness etc. Educated people need to make use of technology smartly. They should be educated with netiquettes which orient about tolerance, respect to others views, followers of Pluralism & co-existence!

Keyword: Technology, Fraternity, Features, Transforming.

INTRODUCTION

With Liberalization, globalization & privatization the pulse of Indian reforms became faster. The reforms began in all the field of life. Majorly it started with financial & technological changes finally it has affected the country. The process is going on in the reforms, educations has to play vital role to ensure the direction of the change which would lead to sustainable development of the all the stakeholders of society.

A. Importance of Technology in Transforming India

Technology itself is reforming and the change are affecting the change of users of technology & generations. Technology in its easiest means appliances & gadgets are reforming daily life. Computer, internet and now smart phone are penetrating reforms to all the parts of society. Technology helps people to find out simplest and easiest way to deal with day to day problems. Technological importance became the fuel of transformation. Technology itself if transforming rapidly, so transformation also happening rapidly.

B. Features of Transforming Education in India.**I. Globalization & privatization of Education.**

Private schools, institutions and universities are encouraged by government, international schools, courses, curriculum, and evaluation system.

II. Personality development to skill development.

Skills development and job oriented courses and degrees are over responded and humanity social subjects are neglected in higher education. Skill education provides more opportunities. So professional courses have more demand than traditional courses.

III. Social welfare to industry.

Education is treated as an industry not welfare activity which is related with profit. Many self – finance institution registered as charity but works as profit making activity.

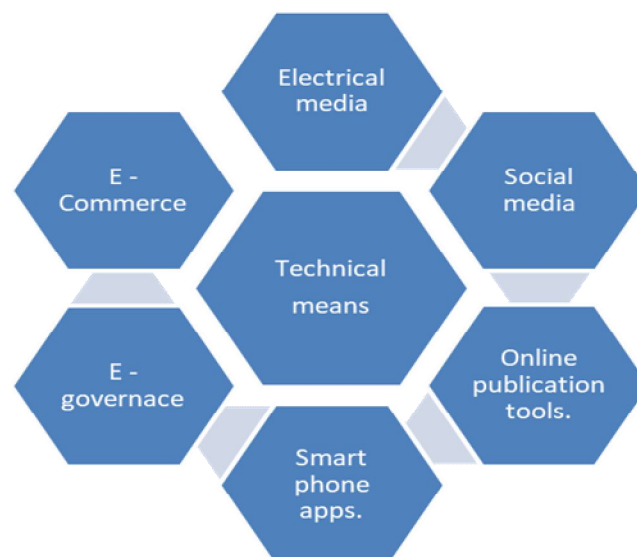
IV. Student centric to parent centric.

Parents coming to the center of the education, system, many activities, infrastructure, facilities and advertisements are planned to attract parents for admission.

V. Mono – resource to multi – resources.

Apart from text books other technological resources like e-books online library, e-journals, social networking have become important resources for education.

VI. Technical means for Transforming India.



C. Role of technology in transforming India

- **Rational use of Technology:** Teachers should enlighten society about making rational use of technology. In the huge amount of information, remarkable amount of information is fake, hate motivated, anti social e.g. violence in particular area, harmful radiations from sunlight, two moons, UNESCO declared Jan- Gan- Man as best anthem, XYZ celebrity died etc. No one should spread such fake messages. One should not have blind forwarding tendency. Whatever messages, news comes to us, it should be verified rationally. There are many technological means available to rectify it. Many incidents happened recently in India where public behaved criminally merely because of misleading post of “WhatsApp.”
- **Pro- active Electronic Media:** The role of media to galvanize attitude and opinion of public. The transformation in opinion decides actions of people which affect the country. If media owned by or influenced by or following ideology of particular political organization they may be biased to deliver the news and updates. People of the country should be able to rectify biased and unbiased news reporting. Teachers should create awareness among the students to watch media carefully. Media should not make news dramatic, sensational, loud and manipulated.
- **Entrepreneurship:** Technology means have opened many horizon of employment which enable Indian people to be an entrepreneur. New services, jobs have opened one person can engage in many business activities due to technological means.
- **Modernization of Traditional Industry:** Indian economy is reliable on small traditional industry. One can expand a small business by using various technological means like website, making apps, registering online shopping sites etc. It will help to reduce the rate of urbanization. A small businessman can deal from its small native place. Small traditional industries can reach globally by using means of technology e.g. mobile app, WhatsApp flyers, Facebook sharing, publishing website and blog etc.
- **Health Awareness:** Technology has made people busy with gadgets. It reduces the physical health. Mobile games has taken out field games. Obesity, spinal cord, eye sight, acidity such health related issues are commonly found in urban society. High expectation from employer stresses out employees. So mental hygiene is also a major issue. Fast food is growing rapidly.

Awareness should be created among the people about food, nutrition, exercise and stress management by preparing flyers, videos shared by using various means of technology. Technology has created issues, technology itself can find out the solutions.

- **Social interaction:** Due to increasing use of technology, a direct interaction has been reduced. Instead of meeting people prefer to interact on WhatsApp and Facebook. Technology should increase the live interaction and it should not be used as substitute to the live direct interaction.
- **E – Skills development:** Since, use of technology is being used in all fields, everyone should be able to make use of maximum member of gadgets. ICT is one subject in curriculum mostly in a form of theory, e-skill is not assessed in written paper, practical exam should be conducted to assess e-skills.

- **Cyber – Security Awareness:** Cyber security is major concern in transforming India. People are learning e-governance, e-commerce, e-banking, online shopping etc. Many of them are on ICT literacy level, not aware about the prevention and cure of cybercrime. So they should be made aware by dissimulation about the awareness on every platform of technology. E.g. Education, Offices, Social networking, social groups, media etc.
- **Expressiveness:** People need to participate in online conversation, instead of mere forwarding, they should express views and ideas. They should come out suggest solution to the problems instead of trolling and criticizing opposites.

CONCLUSION

Technology is two sided sword, which can be used for construction & destructive purpose. Technology should be used by the people for constructive purpose. There is a need to educate people to make use of technology smartly. They should be educated with netiquettes which orient about tolerance, respect to others views, followers of pluralism and co-existence.

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ROLE OF WOMEN IN INDIAN TOURISM INDUSTRY

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ABSTRACT

“A woman with a voice is by definition a strong woman. But the search to find that voice can be remarkably difficult”. Today we have seen the women occupied the respectable positions in all walks of the fields. It’s a hard fact to digest in the 21st century when we come to know that women are still been hindered from going for tours abroad and the risk rate being high, most people discourage women from working in the tourism industry. There are both the challenges and opportunities for women within the sector. The goal should be to inspire, motivate, encourage and support women across the sector; while advocating for greater gender balance across leadership roles within industry. This will result in a global framework for mentoring, inspiring and developing future female tourism leaders. This paper focuses on the role of woman in Indian tourism industry.

INTRODUCTION

In recent years, India has gained good exponential growth in Tourism Industry. Today India is the preferred destination for both overseas and domestic travelers. India provides the facility to tourist of international origin to understand and experience cultural diversity of country. According to Indian official estimates the tourism in India has outperformed the global tourism industry in accordance with the growth, volume of international tourist and even revenue. Indian tourism industry is ranked 11th in the Asia Pacific region and 62nd overall, moving up the three places on the list of the world’s attractive destination. India has been recognized as a destination for spiritual tourism for domestic and international tourists. Total contribution by travel and tourism sector to India's GDP is expected to increase from Rs 15.24 trillion (US\$ 234.03 billion) in 2017 to Rs 32.05 trillion (US\$ 492.21 billion) in 2028.



According to a report by UNWTO in 2010, gender stereotyping was a major issue. Especially, the airline industry is a segregated sector. Women dominate sales, ticketing, and flight attendant positions, while the majority of airline CEOs, managers, and pilots are men. Also in many countries, tour guiding is another area that has been hard for women to enter.

PURPOSE OF THE STUDY

Tourism is an industry where in most regions of the world women make up the majority of the workforce, and own and run many enterprises. According to a study by UNWTO, women make up majority of the tourism workforce in this world, irrespective of the geographical region. Handicrafts, home stays and independent accommodation providers such as bed and breakfast establishments are frequently female operated. On the less positive side, however, women also tend to be concentrated in the lowest paid and lowest status jobs in tourism and hospitality, and perform a lot of unpaid work in family tourism businesses. Women also disproportionately work part-time, although for many this may be from choice as work fits around family responsibilities.

Though the perks of the tourism industry are distributed equally in the developed world they are somewhat unequal in developing countries. Gender inequality and women empowerment explain this concept much better than anything else. It is often seen that women are employed at lower levels with low paying jobs that are precarious in the tourism industry. Gender stereotyping and discrimination usually display women as confined to safe and domestic jobs like cooking, cleaning, and hospitality. We will discuss why women are the primary prey to discrimination, the extent to which tourism industry has helped women meet their needs and the extent to which the tourism industry has tried providing job satisfaction for women.



CHALLENGES FACED BY WOMAN IN INDIAN TOURISM INDUSTRY

Women as primary prey to discrimination

Women are more likely to work in clerical services in tourism industries than compete with men at higher and more professional levels in tourism. Because of this, they are becoming victims of low paying jobs, unable to run homes efficiently. We see this in one of the report findings by UNWTO submitted and published in 2010. The social fear of giving women higher job positions has indirectly found them in a state of backwardness. The idea of a social fear preventing women from stepping out of their homes in today's culture might seem absurd. But in countries that are backward and undeveloped, it presents a safer option. In a recent Bollywood movie- Queen, the protagonist- a young woman, crumbled under emotional pressure after learning that her former lover jilted her for groundless reasons. Her journey from Paris to Amsterdam and back to India served as a rather inspirational story to all young women in India and other countries and their families who, under several misconceptions, don't like to go or let their daughters or women out of the door step on their own. There are risks but we cannot progress if we don't undertake such risks. There are some statistics which show the extent of discrimination in hiring women as part of the workforce in the tourism industry: Other countries like the Bahamas have only 40% of seats reserved for women, whereas the other 60% are given to men. This 40% of jobs are relative to hotel service sector in tourism, than outdoor jobs which pay more; Australia has a comparatively higher number i.e., 55.8% share for women. There are higher chances of women in Australia being promoted here than any other country;

India shows a meager yet significant 38% of hiring vacancy for women. Some jobs though the same for both **women** and **men** still pay women less. A lot of women working in family tourism businesses are unpaid. A vast difference in pay is seen where women earn 15% less salary than men in the tourism industry.



Tourism industry and its struggle to meet the needs of women

Education is the fundamental weapon for women to use against discrimination visible in the tourism industry. The shortage of women in the tertiary level of teaching and graduate studies is due to the lack of a proper push to let them grab the brilliant opportunities which are usually availed by men. This lessens the chances for a good proportion of women around the world to hone their leadership skills which are probably why we find a very small number of CEOs who are women in tourism industries.

A friend recently told me about his elder sister's experience during her visit to Italy. While travelling late one night she had to walk through one of the crowded routes to a bus stop. A group of drunkards started following her until she miraculously encountered a police officer. It was pure luck finding a police officer patrolling the narrow streets of Italy at such a point of time. The officer not only served as a means of protection from the drunkards but also waited with her until she got onto a bus. Such is the state of women travelling to unknown places.

Such stories shouldn't deter women from taking up exciting and adventurous jobs like tourism. One motivating story is solo female biker named Esha Gupta, who travelled 32000 km across 16 states in India. Though she faced many challenges her will and determination to complete her aim brought her success. Her objective of solo travel was simple. She wanted to serve as an example, an inspiration for other women who wish to travel solo. She travelled all around the world to show that it's safe for women to travel and the disproved the old conception that it's unsafe for women to travel without anybody accompanying her. Mumbai Magic has the largest network of women guides in the country.



Socio-economic pressures

The realities of women in rural India are difficult to comprehend. Women are deprived of their fundamental and personal rights, often as a matter of tradition. Besides their reservation in local politics, women are kept behind in the family and in the society. A systematic bias is evident against women in access to basic resources such as education, health and nutrition. In rural areas, women are generally not perceived to have any meaningful income generation capacity, and hence, they are relegated mainly to household duties and cheap labor. Without the power to work and earn a good income, their voices are silenced.



Poverty may be one significant reason for families to withdraw their girls from pursuing further education due to which many are deprived of formal and informal opportunities in tourism industries. The tourism industry has many "own account workers" who are women. Dealing with such pressure exerted upon them is quite tough but one shouldn't ever forget that women are born strong enough to cope up with pressures a man can't face in his lifetime. The tourism industry should address gender equality in every area which can help the community as a whole.

INITIATIVES TO IMPROVE THE ROLE OF WOMEN IN TOURISM INDUSTRY

Women in Tourism Empowerment Programme (WITEP)

The next phase of UNWTO's work on gender and tourism is the Women in Tourism Empowerment Programme (WITEP). WITEP will set a precedent for establishing tourism as a tool for the promotion of gender equality and women's empowerment, using gender analysis and gender training to tackle inequality and gender-based discrimination in the tourism industry.

The overall goal of the project is to promote women's economic empowerment in tourism through partnerships with hotel chains and other stakeholders. This will involve improving employment/entrepreneurship opportunities for women by facilitating their access to jobs and/or participation in supply-chains, and by creating possibilities for career advancement.

WITEP has four main components


1. Employment Skills
2. Supply Chain
3. Career Advancement
4. Gender Awareness

The pilot implementation phase of WITEP is currently being designed and UNWTO's Ethics and Social Responsibility Programme is in negotiation with a series of potential partners from the public and private sector.

Following activities can also be conducted

- Community awareness campaign
- Training sessions and capacity building workshop
- Experience sharing platform and convention programs
- Exposure visits
- Skill development workshops

Framework themes	Key issues	Goals
Employment	<ul style="list-style-type: none"> • Equal participation of women in the tourism workforce • Equal pay for women in tourism • Equal occupational status for women in tourism • Better working conditions for women in tourism 	Goal 1: Create equal opportunities for women working in tourism
Entrepreneurship	<ul style="list-style-type: none"> • Women as tourism employers • Women's access to land and finance for tourism 	Goal 2: Inspire women's tourism entrepreneurship
Education	<ul style="list-style-type: none"> • Women's access to tourism education • Women as tourism trainers 	Goal 3: Advance women through tourism education and training
Leadership	<ul style="list-style-type: none"> • Women as tourism decision-makers • Women as tourism business leaders 	Goal 4: Encourage women to lead in tourism
Community	<ul style="list-style-type: none"> • Women working in tourism at home • Vulnerable women in tourism 	Goal 5: Support women in community and home-based tourism enterprise

The new report, *Women and Tourism, Designing for Inclusion*, encourages project managers to incorporate a gender lens into all stages of the project cycle.  The report provides checklists and recommendations at three key phases in the project lifecycle:

- **Analysis** that identifies the client country's tourism and gender challenges and opportunities prior to intervention plans;
- **Actions** and interventions designed to encourage and enable women to step outside of traditional gender roles and take higher paying jobs in tourism; and
- **Monitoring and evaluation** that focuses on the quality, as well as quantity of jobs held by women.

CONCLUSION

Viewing the status quo of women in the tourism industry, it is important that women should be aware of both the positives and negatives of the profession by educating themselves about other people with experience. To truly bring about a change, challenges that the tourism industry might face should be predicted and solutions should be created in foresight. This might not only help private sectors around the world but also public sectors, international organizations and civil societies.

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A STUDY OF IMPACT OF COMPETENCY MAPPING PRACTICES ON THE ORGANISATIONAL PERFORMANCE

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ABSTRACT

Indian organizations are witnessing a change in systems, management cultures and philosophy due to the global alignment of Indian organizations. There is a need for multi skill development. Over the years, highly skilled and knowledge based jobs are increasing while low skilled jobs are decreasing. This calls for future skill mapping through proper HRM initiatives. Human resource management is a process of bringing people and organizations together so that the goals of each other are met. Human resource and organizational development professionals have generated a lot of interest in the notion of competencies as a key element and measure of human performance. Mapping is a process of identifying key competencies for an organization, the jobs and functions within it. Competency mapping is important and is an essential activity. Every well-managed firm should have well defined roles and list of competencies required to perform each role effectively. Competencies include the collection of success factors necessary for achieving important results in a specific job or work role in a particular organization. Competence is a standardized requirement for an individual to properly perform a specific job. It encompasses a combination of knowledge, skills and behaviour utilized to improve performance. With growing emphasis being placed on competencies as a means to increase organisation's effectiveness, this study seeks to determine if competency mapping practices have positive impact on the employees performance and are predictive of professional success of the organisation.

Keywords: Competency, Competency Mapping, Performance.

INTRODUCTION

Human resource management is a process that brings into picture the people element in the organizations and tries to connect them together so that the goals of the organization are met. Over the years, highly skilled, technical and knowledge based jobs are increasing while low skilled jobs are decreasing. This brings our attention to the fact that for future, skill mapping through proper HRM initiatives becomes the need of the hour. Competency mapping, the buzz word in any industry is the competence or the skill set which various thought leaders in business strategy have emphasized in order to compete in a specific environment. Competency mapping is a strategic HR framework for monitoring the performance and development of human resource in organizations. Competency mapping is a process of identifying key competencies for a particular position in an organization, and then using it for training and development, performance management, and succession planning. No two jobs are congruent to each other. In other words, each and every job demands different skills. Competency mapping sets up a level of objectivity that energizes open correspondence in the middle of administration and workers. Competency mapping recognizes ability gap, that follows up with competency-based preparing is given to workers to extend their present abilities, however it additionally gives an all around characterized way for adapting new aptitudes through broadly educating and for working in the firm.

REVIEW OF LITERATURE:

B R Cellia & M. Karthick (2012) in their article stated that a competency contains knowledge, skills and behaviors that staff members or members of a specific category need to demonstrate in order to carry out their task and responsibility successfully. Competencies are the foundation for effective performance in any job or position. A competency profile can include core competencies, which identify those core values that all staff members should demonstrate, managerial competencies, relevant for management positions and functional or technical competencies that are specific to functional areas. Competency is the ability of an individual to perform a job properly. training needs identification. S.V.Sreedevi (2013) in her article briefed that the description of the employee's competencies attributes, interdepartmental competencies and suggestions given to enhance their competency level. The major idea is to find out the existing competency level of the employees. Sinchu.P, S.Bhuvaneshwary (2015) in their article stated that most commonly used HR practice is competency mapping for development of the employees. Identifying and development of the competencies in organization enable better performance management as well as reward and recognition systems leading to career and succession planning programs. Also competency mapping is a strategic HR frame work for monitoring the performance. Jaideep Kaur & Vikas Kumar (2013) in their article stated that Competency Mapping is a process of identifying key competencies for a company or Institution and the jobs and functions within it.

STATEMENT OF THE PROBLEM

Every organization strive to accomplish its goals in terms of quality, productivity, stability, profitability and development and increased effectiveness of organization must pay attention to the development of competencies of its HR in a planned and strategic way. Competency mapping is an essential activity. Every well handled organization must have well defined roles and competency list needed to carry out every role effectively. Competency mapping recognizes weaknesses and strengths of an individual to support them better perceive themselves and to reveal them where efforts of career development required to be directed. Competency mapping is not only for confirmed staff of a firm and it can be performed for contract staff or for those seeking employment to emphasize particular skills which would make them valuable to the employee.

OBJECTIVES OF THE STUDY

The main aim of the paper is to study the benefits of competency mapping practices . Accordingly the objectives of the studies are set as under.

1. To study the benefits of competency mapping process to the organization
2. To study the benefits of competency mapping process to the employees working in the manufacturing units

RESEARCH METHODOLOGY

The data for the study was collected from both Primary and Secondary sources .Primary data was collected from employees through a questionnaire constructed for the purpose. From different enterprises on random basis 390 sample employees were selected for the study. The secondary data was collected through books, research articles published in various journals, seminars and conferences, Magazines, Newspapers, Annual Reports .

ANALYSIS AND INTERPRETATION**Classification of Sample Respondents on the Basis of Organizational Performance**

Sr.	Parameters	SDA	DA	Neutral	A	SA	Mean	SD	CV
1	Committed Employees	0	11 (2.80)	0	310 (79.50)	69 (17.70)	4.12	0.53	12.75
2	Focuses on the development of workforce	0	100 (25.60)	11 (2.80)	278 (71.30)	1 (0.30)	3.46	0.88	25.32
3	Training and development programs	0	0	8 (2.10)	370 (94.90)	12 (3.10)	4.01	0.23	5.65
4	Employee satisfaction	0	0	0	338 (86.70)	52 (13.30)	4.13	0.34	8.23
5	Improvement in risk-taking	0	48 (12.30)	27 (6.90)	294 (75.40)	21 (5.40)	3.74	0.74	19.81

The data in the table shows that the competency mapping practices also helps to bring positive changes in the organizational performance as competency models are developed to upgrade the skills of the employees. Hence Employees feel very committed to the organization. When the mean score for each parameter is considered, it is found that the focus on the development of the workforce and improvement in risk take are have mean score less than 4. It implied that the opinion of the respondents towards these parameters inclined to neutral. Whereas in case other three parameters – commitment, training and development and employee development have mean score more than 4. This means the employees agreed that the organizational performance is being improving.

Classification of Sample Respondents on the Basis of Individual Performance

Sr.	Parameters	SDA	DA	Neutral	A	SA	Mean	SD	CV
1	Able to learn new tasks	0	0	0	222 (56.90)	168 (43.10)	4.43	0.50	11.19
2	Improvement in the Job Performance	0	0	7 (1.80)	271 (69.50)	112 (28.70)	4.27	0.48	11.31
3	Improvement in the values of employees	0	53 (13.60)	8 (2.10)	285 (73.10)	44 (11.30)	3.82	0.80	21.04
4	Improvement in knowledge	0	0	0	280 (71.80)	110 (28.20)	4.28	0.45	10.52
5	Perform with more confidence	0	0	21 (5.40)	303 (77.70)	66 (16.90)	4.12	0.46	11.14

6	Stress tolerance	0	0	11 (2.80)	211 (54.10)	168 (43.10)	3.35	1.04	31.20
7	Pro-activeness	0	0	0	275 (70.50)	115 (29.50)	4.29	0.46	10.63
8	Consciousness	0	0	16 (4.10)	248 (63.60)	126 (32.30)	4.28	0.53	12.47
9	High energy level	0	0	33 (8.50)	267 (68.50)	90 (23.10)	4.15	0.54	13.09
10	Honesty and Sincerity	0	0	0	236 (60.50)	154 (39.50)	4.39	0.49	11.14
11	Self Motivation	0	0	0	296 (75.90)	94 (24.10)	4.24	0.43	10.10

The responses in the table shows how the individual performance of the employees has improved by adopting the competency mapping practices in the organization. Almost all sample employees said that they can learn new tasks and enhance skills due to competency mapping. Everyone feels that job performance get improved due to competency mapping. Considering the mean, standard deviation and coefficient of variation of each parameter of competency mapping for individual performance, it is clear that the mean score is above 4, the S. D. is less than 1 and C. V. is at around 10.10 to 31.20, which means about all the respondents are agreed that individual performance has been improved with the adoption of Competency Mapping Practices.

CONCLUSION

Success of any organization largely depends on the Human Resource (HR). Therefore, planning and development of Human Resource should be the core activity in the organization. This is a continuous process which involves application of different tools and techniques. Competency Mapping is one of the best tools in this regard. Competencies are the set of abilities and personality traits of an individual that are required for superior performance. Performance of an employee is measured in terms of the achievement, by him/her, of set goals and objectives of an organization. Thus the research study explains that the competencies are the key to higher performance which requires a cluster of knowledge, skills and attitude on the part of an individual employee which benefits not only the employees but also the business organisation.

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STRESS MANAGEMENT OF CLERICAL STAFF WORKING IN STATE BANK OF INDIA.

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INTRODUCTION

Today workplace stress is becoming a major issue and a matter of concern for the employees and the organizations. It has become a part of life for the employees, as life today has become so complex at home as well as outside that it is impossible to avoid stress. Organisational stress arises due to lack of person-environment fit. When organizational stress is mismanaged, it affects the human potential in the organization. It further leads to reduced quality of performance, productivity, health as well as wellbeing and morale.

Employees stress is a growing concern for organizations today. It is a condition which happens when employees realised that pressures on them or the requirements of the situations in which they are working is difficult to handle. If these requirements are huge and continue for longer period of time without any interval, then mental, physical or behavioral problems may arise.

Stress however to some extent is desirable to improve performance and quality of work and meet the challenges positively at work place.

Stress is derived from the word 'stringi ' which means ' to be drawn tight' it is a physical and psychological stimuli that can produce mental tensions or psychological reactions. If handled positively can contribute in the development of employee as well as organizations however the negative impact of stress may cause physical and psychological illness, withdrawal symptoms from the work, disturbed employee behavior and poor performance causing low productivity and efficiency of an employee.

Over a period of time, the banking sector had under gone rapid and striking changes caused due to globalisation and liberalisation, increased competition due to the entrance of more private (corporate) sector banks, downsizing, introduction of new technologies, digitization and demonetization last year. These changes, compelled the banking sector to reform and adjust to have a competitive edge to cope up with multinationals led environment. Evidence from existing literature states that more than 60% of the bank employees have one or other problem directly or indirectly related to these drastic changes.

In this juncture, these research paper throws light on factors causing stress and its effective management by employees specifically clerical staff of State bank of India (SBI) nationalized bank. The study is undertaken of the clerical staff working in SBI branches in Kalyan and Dombivali.

RATIONALE OF SELECTING THE TOPIC

Stress, either quick or constant, can induce risky body-mind disorders. Immediate disorders such as dizzy spells, anxiety attacks, tension, sleeplessness, nervousness and muscle cramps can all result in chronic health problems. They may also affect our immune, cardiovascular and nervous systems and lead individuals to habitual addictions, which are inter-linked with stress.

Many professionals see the pressures of heavy workloads and deadlines as positive challenges that enhance the quality of their work and the satisfaction they get from their job. Stress is not necessarily bad in itself. Although stress is typically discussed in a negative context, it also has a positive value.

But it is different in the case of bank employees. The bank employees are the people who also have to achieve the certain target and so for the non achievement of target the employees remain stressed and tensed. Due to changes in functioning of banking, demonetisation and post demonetisation work pressures, poor operations of ATM and currency crunch, digitisation and online transactions, clerical staff in banking sector is facing the occupational stress. Employees in SBI's are no exception.

Kalyan and Dombivali towns are vibrant commercial locations for the people in and around the vicinity. The banking operations are also voluminous in the branches of SBI. In this context the present study was undertaken to find out stress level of Clerical Staff and its management by them in the SBI branches of Kalyan and Dombivali towns.

OBJECTIVES

The various aspects of the employees have been studied in order to know the problem "job stress" its causes and consequences. The studies have focused on different aspects of the job stress like sources of stress, stress symptoms, stress management, etc. The objectives include the following:

- To study the different types of job stress of clerical staff working in SBI.
- To study the relationship between employees motivation and job stress.
- To find out factors causing stress at work place.
- To know the stress management techniques followed by employees.
- To recommend the concerned parties to help reducing stress among the clerical staff of SBI.

HYPOTHESIS

The present study has been undertaken with the following hypothesis.

Statement 1

- **H₀**: There is no strong relationship between occupational stress and health disorders.
- **H₁**: There is strong relationship between occupational stress and health disorders.

Statement 2

- **H₀**: Employees are not aware of stress management techniques.
- **H₀**: Employees are aware of stress management techniques and they follow the same.

Research Method: Non disguised research method is followed through structured questionnaire and survey.

Sources: Primary data is collected through questionnaire. Secondary data from books and internet is collected.

Sample type and size – Judgemental and Random sample of 100 respondents from branches of SBI bank from Kalyan and Dombivali are selected.

LIMITATIONS

- The survey is limited to 100 respondents.
- The study is to understand the opinion of clerical staff about stress and its management.
- The findings in the survey are based on the assumptions that the respondents have given the correct information.
- Findings cannot be treated as representative of entire population because sample size is very less hence the result may vary if established on other type of population

FINDINGS FROM THE RESPONSES

1. Majority of the respondents are from the age group of 32 to 50 yrs.
2. Most of the respondents say that work culture is supportive in their organization.
3. Majority of the respondents are satisfied with their pay scales.
4. A very cautious policy of the top level management causes lengthy procedure and mental pressure.
5. The fear of transfers in other branch also creates stress among the employees.
6. Month end and year end of closing operations are stressful as opined by the employees.
7. To deal with outspoken and ignorant customers causes stress and irritation.
8. Long working hours with the changing government policy and overdependence on e-operations is a significant factor of causing stress among majority of the clerical staff.
9. Majority of the employees strongly agreed that more of table work and absence of movement causes health problems like bodyache, acidity, fatigue etc.
10. Half of the respondents are satisfied with the behaviour of their superiors/boss. 30% are not happy with the behaviour of their superior and 20% of respondents are indifferent towards it.
11. 60% of the respondents are satisfied with the infrastructural facility whereas 25% find it inconvenient. 15% respondents are indifferent towards it.
12. The fear of demotions, transfer and downsizing are factors causing stress among most of the respondents.
13. Majority of the employees feel that their hard work and sincerity is not recognised by their superiors.

14. The organisational politics is also one of the reasons causing stress among majority of the respondents.
15. Most of the respondents agree that breaks from routine work helps in stress management and regaining the energy for better performance.
16. Very few respondents said that they follow stress relieving technique like yoga , meditation etc. but majority go for medication for stress relieving.
17. Majority of the respondent expect that organisation should take initiative towards stress management of its employees.

CONCLUSION

The problem of stress is inevitable and unavoidable in the banking sector. A majority of the employees face severe stress- related ailments and a lot of psychological problems. Hence, the management must take several initiatives in helping their employees to overcome its disastrous effect. Since stress in banking sector is mostly due to excess of work pressure and work life imbalance the organization should support and encourage to take up roles that help them to balance work and family. The productivity of the work force is the most decisive factor as far as the success of an organisation is concerned. The productivity in turn is dependent on the psychosocial well being of the employees.

It can be concluded from the present study that clerical staff of SBI bank , branches in Kalyan and Dombivli town face stressful situation due to exhaustive travelling , long working hours , organisational politics and nature of job i.e table work. They expect management of the bank to take initiative in stress management programmes so as to improve their work performance and quality of life.

RECOMMENDATIONS

1. As most of the employees feel that they feel stress at work, banks should take positive steps to make their employees free from stress so that they can work with optimum efficiency and effectiveness.
2. Employees of the banks should be made free from not only fear of quality of performance but also from other types of fear generating in their minds.
3. Guidance and counselling, quality consciousness awareness programs, psychological support can be provided to employees.
4. Banks should arrange YOGA camp, meditation camp, entertaining programs etc. The working environment should be made clean and safer.
5. There should be proper work division in all departments.
6. There should be friendly environment from colleagues and especially boss.

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DIGITALISATION IN FINANCIAL TRANSACTIONS: AN ANALYSIS OF CONSUMER PREFERENCES**Dr. K. K. Sunitha**

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ABSTRACT

A study of consumer preferences is not only about what and how consumers buy or avail. It goes much beyond and includes how societal changes influence their buying or availing habits. Development of consumer behaviour is often a by-product of culture rather than prudent economic decisions. The 'rights atmosphere' also plays a significant role in determining consumer preferences. This paper is a study of consumer preferences of Indian consumers with reference to digital financial transactions.

Keywords: Digital financial transactions, consumer preferences.

PAPER

The socio- economic and technological changes happening currently leads to new trends in consumer habits .It also poses new issues and challenges for consumer protection in India. One of the significant changes is the evolution of digital market. It creates economic and legal challenges. Apart from the security concerns, this revolution also raises some of the key issues in rights protection of consumers as internet works beyond territorial jurisdictions.

The paper is the result of a survey conducted among people of various ages and occupation to analyse the consumer perception on issues related to digital money transfers. The findings are relevant in the wake of demonetisation and the consequential increase of usage of digital technology for financial transactions.

OBJECTIVES

The current study is having the following objectives

1. To understand how far digital technology is used for financial transactions.
2. To identify, consumer preferences, while using digital mode of money transfers.
3. To understand from a consumer perspective, the modes of ensuring complete digitalisation in financial transactions

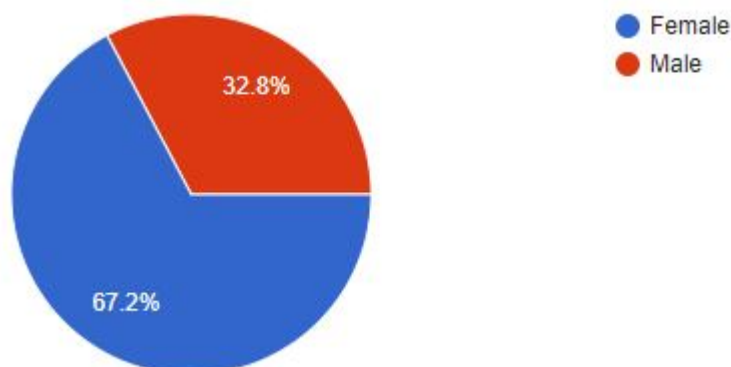
RESEARCH METHODOLOGY

A quantitative study was carried out using well-structured questionnaire. Simple random sampling technique was used. Analysis was done on percentage basis. The sample size was 116. Details and purpose of survey was informed to the research participants and participation in the survey was completely voluntary.

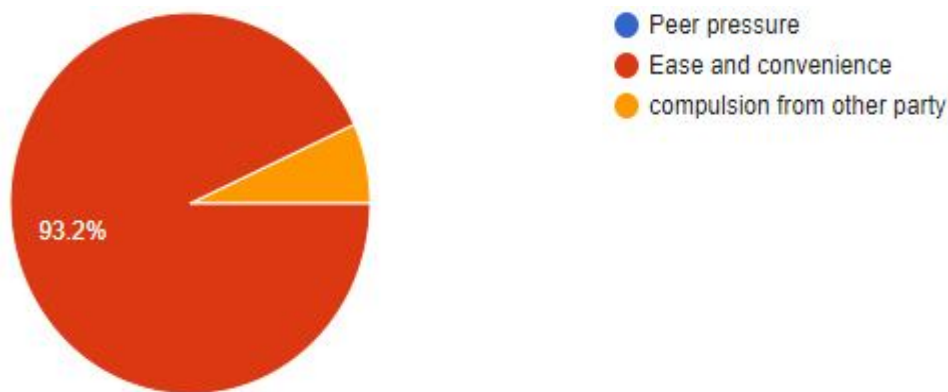
FINDINGS

The sample consisted of individuals from all walks of life. Both men and women. And they belonged to various age groups. Majority being in the age group of 31 to 60.

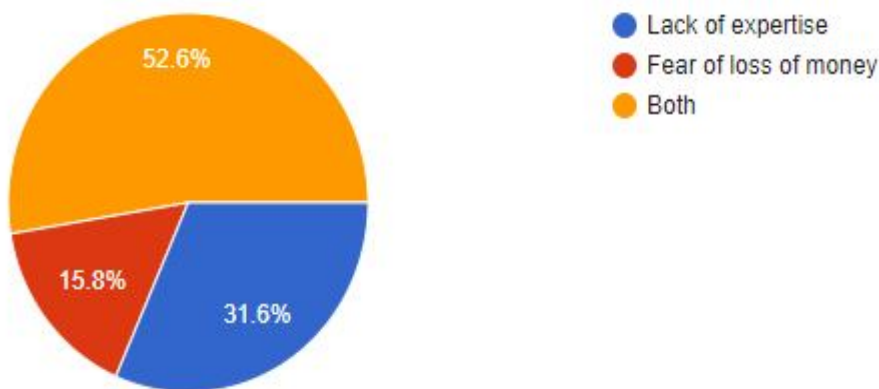
The population consisted of students, service professional, retired employees, house wives, entrepreneurs etc. The female respondents doubled the number of male respondents.



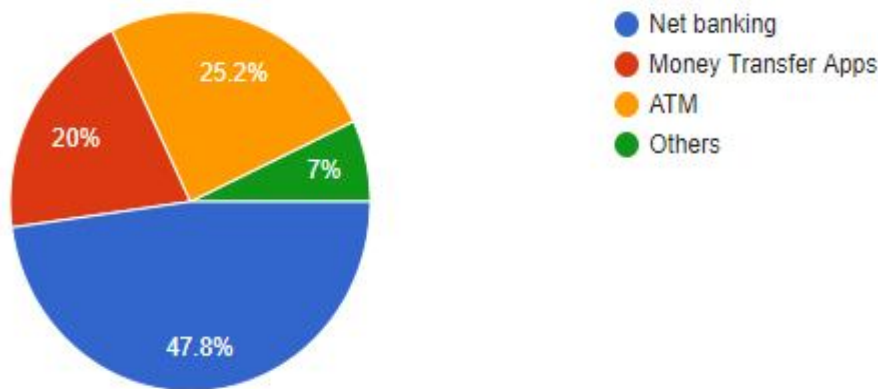
The research participants were asked to give their opinion on the reason for undertaking to digital transfer of money. Various options were given .Majority participants attributed it to the ease and convenience that the technologies offer. A nominal 7 to 8 percent reported that it is because of pressure from other party.No one among them reported to have a peer pressure to use these methods.



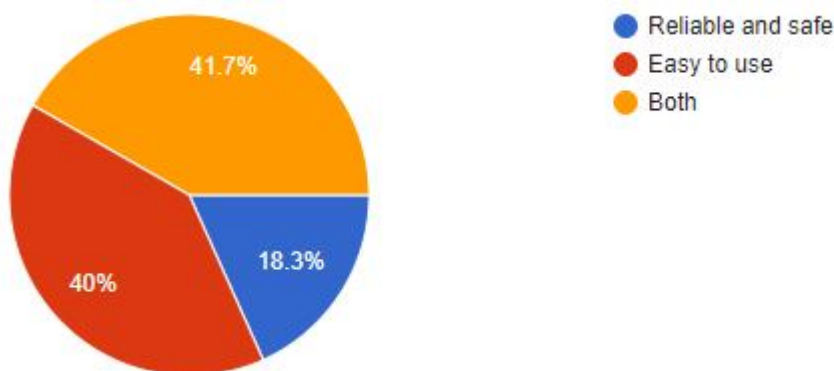
Those participants, who were not doing digital transfer of money, have given various reasons for that. Though only lack expertise is the reason for 31.6 % and fear of loss of money for 15.8%, a huge majority that is 52.6% agreed that they were affected by both these factors.



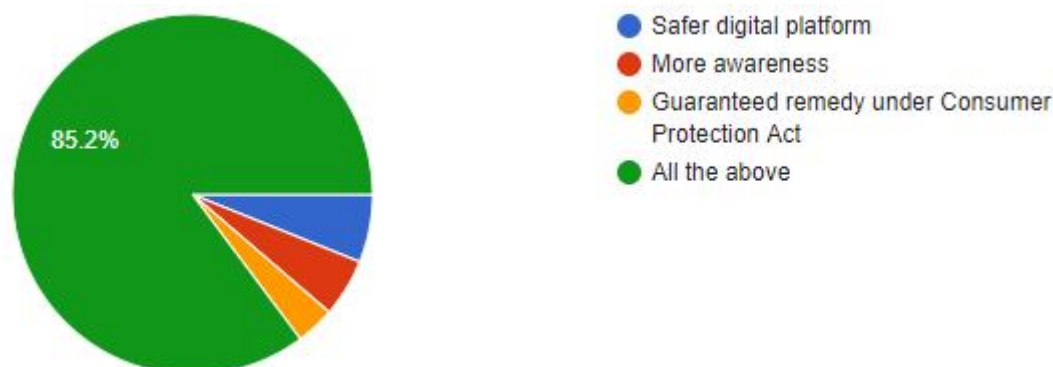
This study finds that net banking is the most preferred method as 47.8% participants preferred it against payment apps and ATM transfers. The percentage of preference for other modes of payment is as shown in the chart below.



There are reasons for this wide acceptance. Participants stated that net banking is reliable and safe and also easy to use.



The most important research question was about making India, hundred percent digital in financial transaction. What are the challenges and what we need to do? According to this study, it is possible only when there is more awareness among the public, safer digital platforms, guaranteed remedies under Consumer Protection Act, all together in fact.



LIMITATIONS OF THE STUDY

1. This study is limited to a sample consisting of urban educated class, majority being women. Demographic factors influence statistical data and that influence affects this study also.
2. Participants are largely representing panIndia. Not specifically focused on any city, town or village. Therefore local influences cannot be measured from this study.

CONCLUSION

The study reaches to the following conclusions.

1. Consumers are switching towards new trends in financial transaction.
2. There is both lack of experience and fear of loss of money which act as an obstacle in more and more digitalisation of money transfer.
3. Consumers prefer net-banking over other modes of digital transfer as they consider it as more safe and easy to use.
4. In order to bring hundred percentage digitalization in India, there is a need to create safer digital platform, guaranteed protection under Consumer Protection Act and more awareness among the consumers.

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**A STUDY ON CASHLESS ECONOMY IN THE POST DEMONETIZATION PERIOD IN INDIA:
CHALLENGES AND OPPORTUNITIES**

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ABSTRACT

Demonetization is withdrawing units of money from circulation. The units of money denied lose the status of legal tender. The currency notes will not be considered as valid / legal currency. In other words, demonetization refers to change of currency where new units of currency replaces the old one. Soon after demonetization, people experience cash crunch, ATMs & Banks are out of cash. As an alternative to cash payments, people start using digital wallets which are convenient mode of payments. This paper attempt to understand the meaning, reasons and impact of demonetization on Indian economy. This study also gives an insight into India's march towards cashless economy.

Keywords: Demonetization, cashless Economy, Digital wallets.

INTRODUCTION

Demonetization is an act of taking away the legal tender rights of any unit of currency. It may involve the introduction of new currency notes or coins of the same or completely new denomination. In Indian context, the currency has been thrice demonetized. The first demonetization took place on 12th January 1946 second on 16th January 1978 & third on 8th November 2016. In the third demonetization, Govt. Of India announced withdrawal of all ₹ 500 & ₹ 1000 notes of Mahatma Gandhi series.

OBJECTIVES OF THE STUDY

1. To understand the meaning & causes of demonetization.
2. To examine the impact of demonetization.
3. To analyses the challenges in cashless economy.

RESEARCH METHODOLOGY

This paper is descriptive. The entire research work is based only on observation & documentary analysis. The required secondary data are collected from various research papers, journals & websites. Books have also been referred for collecting theoretical information on the topic.

REVIEW OF LITERATURE

Muthu Lakshmi E K (2017) in her paper "Impact of Demonetization on Indian Economy: Issues & challenges" stated that the country may not benefit in the short term due to demonetization of currency. However, according her the country would definitely have positive & favorable effects in long term. She also stated that certain sectors of India economy had been adversely affected due to demonetization such as textile and Real Estate.

Rahul Prakash Deodar (2016) in his paper "Block money & Demonetization" has highlighted the role of demonetization in Controlling black money, corruption & terrorism.

Shah A. Y. (2017) in his paper "Impact of Demonetization on Rural India" stated that withdrawing currency from the economy was a major step of Government in fighting against black money, corruption & terror funding but this decision was taken without proper preparation & therefore it adversely affected Indian economy.

Causes of Demonetization in India

- 1) To unmask the black money holders.
- 2) To stop the circulation of fake currency in the country.
- 3) To control corruption.
- 4) To put an end to terrorist funding.
- 5) Moving towards cashless economy.

Impact of Demonetization on India Economy**Pros of Demonetization**

- 1) **Black Money:** Government's decision of demonetization resulted in to the collection of huge deposits with the banks. All unaccounted money has either been deposited in to the banks with heavy penalties or currency has been simply destroyed.
- 2) **Cashless Economy:** Demonetization has transformed India from cash economies to cashless economy. Today it can observed that e- payments are becoming popular among people. A Sizable part of population is now making digital payments in their daily life. For instance Mobile recharge, electricity bills, Electronic transfer of funds and many more.
- 3) **Fake currency:** Demonetization was a revolutionary move of Government to counterfeit Indian currency. The new currency of different denominations have come with highly advanced security which are difficult to replicate.

Cons of Demonetization

- 1) **Liquidity Crunch:** Demonetization in the short term has resulted into liquidity crises all over the country. People found it difficult to get sufficient amount of cash to fulfill their basis needs.
- 2) **Loss of consumption & well-being:** Majority of people in India use currency to meet their daily transactions. Such class of people such as wage laborers, small traders, farmers & other poor people use cash often. Demonetization had resulted in to loss of income, consumption & well-being of people.
- 3) **Black money:** In India, only a small part of black money is actually stored in the form of Cash. However, most of the black money is kept in the form of economic assets like gold and real estate. Hence only a small part of unaccounted black money has been deposited in a bank. The objective of curbing black money has only been partially achievement.

Cashless Economy challenges Ahead

India is becoming digital, but still it is not 100% digital. Large part of population in India is outside the preview of digitalization. They are not in a positioning to reduce their dependence of cash. Moreover, digital payments requires an internet access. In other words, internet accessibility is the pre requisite for digital payments. People face difficulty in making electronic payments even in metro cities cause of poor network. This is the major hurdle which India is facing today. Moreover, the attitudes & perceptions of people regarding digital payment need to be changed. People should ready to accept new mode of payment which is far more convenient. One another issue of digitalization is rising cyber-crimes & leakages of data. People are not whole heartedly showing their willingness in using e- payments because of cyber threats.

CONCLUSION

Govt. of India's bold decision to demonetize old currency & replacing it with the new currency has been considered as a surgical strike against unaccounted black money in the history of Indian economy. The demonetization was followed by a liquidity crunch in banks & ATMs across the country. India face severe cash shortage & difficulties in exchanging new currency for the old one. There were long queues outside banks & ATMs. However these difficulties were short term. At present, demonetization has brought a positive impact on Indian economy. It has encouraged the digital mode of payment like e wallets, online payments, using plastic money etc. The credit goes to demonetization for making India digital. It can be concluded that demonetization is beneficial for the economy in the long term.

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CHANGING MOTIVATIONAL FACTORS AT DIFFERENT CAREER STAGES OF EMPLOYEES

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ABSTRACT

Steers & Porter states that work motivation is a factor that changes an employee's way of working and behavior. Every manager or supervisor must identify the needs and wants of employees and utilize as a motivational factor.

The purpose of this study is to find the motivational factors of the employees from entry-level to managerial/ senior level in the organization. The data is collected through primary & secondary sources. The primary data are collected through a survey from 50 no. of respondents working in various industrial sectors. The study identified that employees at junior level get motivated if they are placed at the right job and able to understand the work whereas, the employees at the managerial/ senior level are motivated through better career opportunities and salary hike within the same organization. This research paper determines the changing motivational factors of employees at different career stages.

LITERATURE REVIEW

Samira AL Jasmi (March 2012) have analyzed motivated employees not only influence their work performance but also the entire organization. To create a motivating environment for the employees the organization should grow which will stimulate the employees to perform well.

Catherine R. Johnson (2005) has examined that the organization must have the ability to recognize the motivators for different employee groups and their relationship with organizational commitment. The manager should identify the different needs of employee groups.

INTRODUCTION

Motivation inspires, stimulates and encourages individual or the team to accomplish their goals. **Motivation** is a desire that fuels an individual to perform or continue an action based on needs and wants of the individuals. Motivation increases the level of energy which also results in higher productivity of an individual at their workplace.

The most important function in human resource management is to create the willingness of an individual to perform the best of their abilities in the organization. In the organizational context, the psychological factors stimulate that employee's desire can be for monetary gains and non- monetary gains. Therefore the manager or superior can motivate to arouse interest in the performance of employees in their jobs.

Many organizations assume that the employees are motivated by extrinsic factors so they put efforts to provide high salary, bonus, or promote them but still employees fail to perform better and so they leave the organization.

Due to the increase in competition, many organizations are facing high employee turnover and lack of motivation is one of the reason. To attract and retain the employees the manager must understand what motivates the employees. Hence it is necessary to determine every employee's motivational factors and accordingly, the supervisors should use those motivational factors.

PROBLEM OF THE STUDY

In India, there is an increase in attrition rate due to discontent at the workplace. Mostly from Entry-level to managerial level employee tend to leave the job within one year or they constantly change the jobs, may be because of unsuitable job profile, unfair salary/ wages, poor working conditions or work environment and no proper rewards and recognition etc. The organization implements the same motivational factors for all the level of employees. It is important to understand employee's needs and wants.

Due to failure in identifying the right motivational factor for employee, there is an increase in employee turnover or less productivity and the employer has to face the high cost of recruiting new employees every month or year. It is important to identify the expectations of the employees to motivate them which will help to retain the talented employees.

OBJECTIVES OF THE STUDY

- ☐ To identify the current motivating factors of employees at different career stage in the organization.
- ☐ To analyze the study of motivational factors of youth.

□ To recommend new factors of motivation for the employees to attract and retain them in the organization.

METHODOLOGY

The purpose of this study is to explore the current motivational factors i.e intrinsic or extrinsic. The research study consists of both primary and secondary data. The primary data is collected through the survey with 50 respondents who are working from entry-level to managerial level. The secondary data is collected from various articles and journals.

RESEARCH ANALYSIS & DATA INTERPRETATION

The study is conducted on employee motivation as it is believed that it is one of the most influential techniques to stimulate human resource for better performance. The survey is conducted which identifies how motivational factors impact on the job satisfaction level and encourage them to work dedicatedly in their organization. The no. of respondents was 50 out of which male- 27 and female- 23. The respondents are from the **age group of 22 years to 35years**.

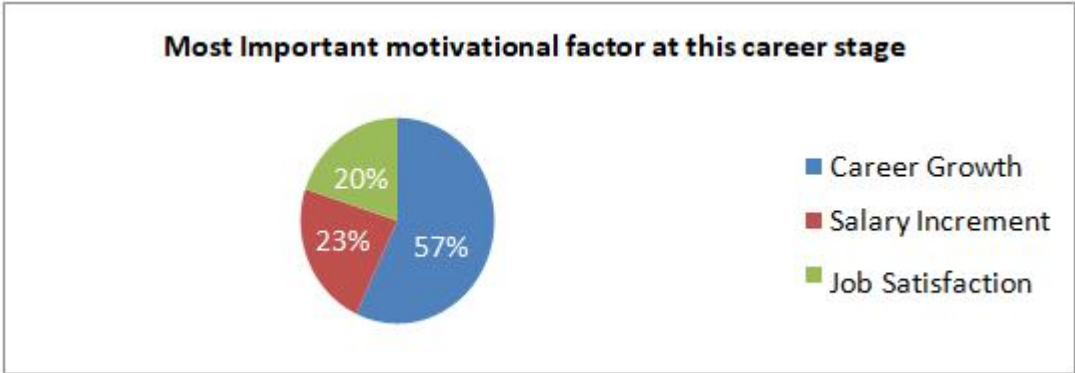


Figure no-1

From the above figure no.1, 57% of respondents under the age group of 27years to 30 years get motivated if they get career opportunities in their organization. And the remaining 53% of respondents at the entry-level (22years to 26 years) get motivated through salary increment and respondents (above 30 years) need job satisfaction.

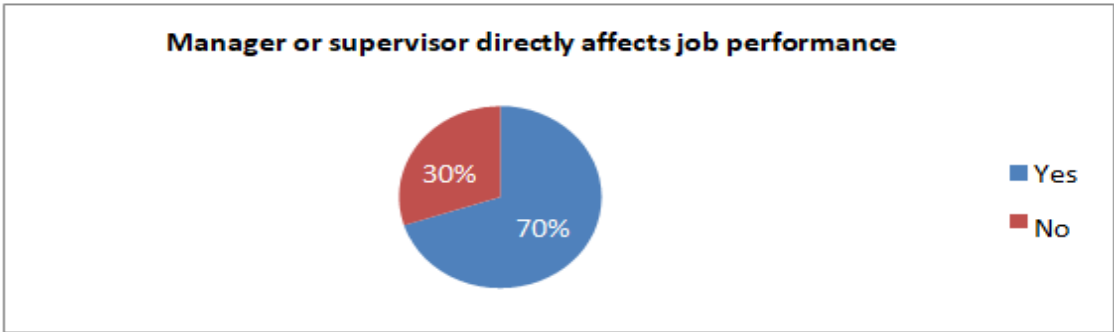


Figure no-2

Figure no. 2 shows that 70% of respondent’s job performance decreases if there is lack of support or more pressure from their superiors regarding their work and 30% of respondents, do not affect their job performance because of their supervisors.

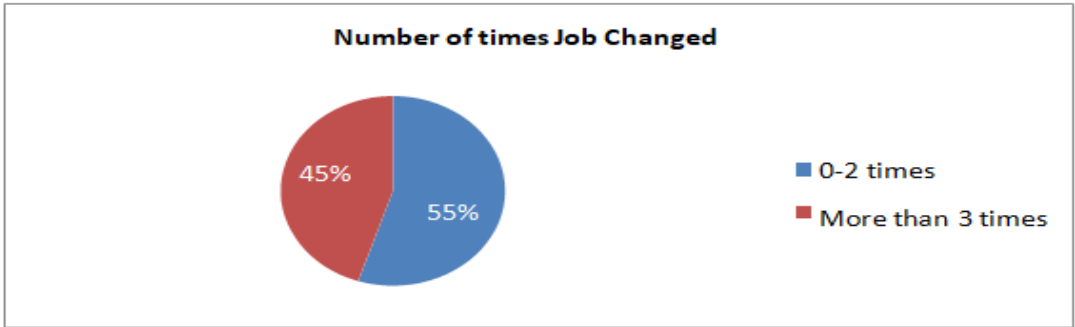


Figure no-3

Figure no.3 represents that 55% of respondents changed their job 0-2 times because for finding right job placement and due to salary increment and 45% of respondents have changed their job more than 3 times because of no career growth in other organization.

FINDINGS

- The study shows that the most employees under the age group of 22 years to 35 years give more preference for their career growth in their field. So the organization which provides career opportunities employees is highly motivated and performs well with the aim of getting promoted in the organization.
- The study also reveals that apart from monetary gains or non- monetary gains as motivational factors, the support or proper work instruction provided by managers improves the job performance of the employees in the organization. If the employer provides unclear work instruction or not supportive to employees results discontent, i.e they lose confidence and make a lot of mistakes in their work which results in low job performance. Hence, the new joined employees leave the job due to an unclear understanding of work which loses its interest in that job profile and may look for different job profile in another organization.
- The study shows that the employees working at entry-level or at senior position change job due to low salary increment or lack of career opportunities in the organization. Therefore the organization must provide a fair salary according to their experience, designation and job performance.

SUGGESTIONS

- Every organization must deliver their promises they make during hiring employees, this will attract and motivate the employees to retain them in the organization.
- Development of career path is also an important tool for motivation. Employees are more engaged when they believe their employer is more concerned for their growth to achieve individual career goals while fulfilling the organization's mission. Therefore, implementing career path will also have a direct positive impact on the job performance of the employee by high morale, job satisfaction, higher efficiency, and productivity.
- The behavior of managers or supervisors impact on the employee's job performance, so the employer should be polite, helpful or trust the employees this will create a sense of belongingness. The employees will enthusiastically work in the organization.
- Nowadays youth look for knowledge and skill development, so regular training programs should be provided which will help them to develop their confidence and develop an interest in that work profile which may help to accept new challenging work in the organization.

CONCLUSION

Employee motivation is vital to the success of the organization. Lack of employee motivation may cause organizational problems like increase employee turnover, low productivity, difficult to attract and retain qualified employees. The organization must understand the expectations of employees at every career stage from entry-level to managerial level. Mostly fresher or trainee seek for job profile of their interest and expect that they learn or understand the work properly which will help them to move ahead in their career whereas the employees at senior or managerial level expect better career growth and job satisfaction within the organization.

To face the competitive market organization needs a younger employee with innovative ideas or upgraded skills and knowledge. Therefore the organization must fulfill employee's needs and wants by using it as a motivational factor for procurement and retention of skilled and talented employees.

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A STUDY OF RISING FRAUDULENT PRACTICES IN INSURANCE SECTOR IN INDIA

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INTRODUCTION

The Indian Insurance Sector is basically divided into two categories – Life Insurance and Non-life Insurance. The Non-life Insurance sector is also termed as General Insurance. Both the Life Insurance and the Non-life Insurance is governed by the IRDAI (Insurance Regulatory and Development Authority of India).

This government organization thoroughly monitors the entire insurance sector in India and also acts like a custodian of all the insurance consumer rights. This is the reason all the insurers have to abide by the rules and regulations of the IRDAI. coverage for our industrial equipment's as well. Crop insurance for our farmers, gadget insurance for mobiles, pet insurance etc. are some more insurance products being made available by the general insurance companies in India.

The life insurance companies have gained an investment prospectus in the recent times with an idea of providing insurance along with a growth of your savings. But, the general insurance companies remain reluctant to offer pure risk cover to the individuals.

What is Fraud?

In law, fraud is deliberate deception to secure unfair or unlawful gain, or to deprive a victim of a legal right. Fraud itself can be a civil wrong (i.e., a fraud victim may sue the fraud perpetrator to avoid the fraud or recover monetary compensation), a criminal wrong (i.e., a fraud perpetrator may be prosecuted and imprisoned by governmental authorities), or it may cause no loss of money, property or legal right but still be an element of another civil or criminal wrong. The purpose of fraud may be monetary gain or other benefits, such as obtaining a passport or travel document, driver's license or qualifying for a mortgage by way of false statements.

- Financial frauds are associated with sophisticated urban areas. But when it comes to insurance frauds, rural India has taken the lead due to various reasons. While baby steps like a fraudster database is being taken, such malpractices may not be contained without strict punishments under penal code
- Insurers have identified at least 80 districts across the country which have excelled in fraudulent claims over the past decade. They have identified rings that operate with the efficiency of a corporation with well-trained men and women who collect data with the efficiency of a 21st century start-up.
- A combination of poor due diligence in writing policies by insurance companies and the organisational efficiencies of criminals in identifying those who are on deathbed and in enlisting doctors to produce fake certificates led to frauds which are estimated to have cost over Rs 10,000 crore annually to the industry.
- Therefore, it has become very essential for the insurers come together to form a data centre of fraudsters and their methods, which would function like the credit bureau which is tapped into by banks to know the customer's financial history. Insurers are also investing money and human resources to enhance their abilities to detect fraud.

OBJECTIVES OF STUDY-

To study the types of fraudulent practices found in Insurance Sector.

To study different techniques used for investigation / detection of fraud.

To suggest measures to be taken by insurance companies for reducing/preventing frauds.

RESEARCH METHOD

Descriptive method of research is followed for the study,

SOURCES OF DATA

Secondary data is used including newspapers magazines ,internet etc.

LIMITATIONS OF STUDY

Only published criminal/fraudulent practices are studied. Cases from General and Life Insurance are considered.

Following are some findings from the study-

FINDINGS

Fraudulent Practices in Insurance Sector-

1. Stolen Car

There are two ways that criminals perpetrate the stolen car insurance fraud scam. The first type of stolen car fraud is when a car owner sells his car to a body shop to be cut up for parts and then reports the car as stolen. The body shop is in on the fraud, so the authorities are never told about the sale for parts.

The second most common way that criminals commit stolen car fraud is to sell the car to an overseas buyer, make the transaction without any paperwork, ship the car overseas and then report it stolen.

2. Car Accident

The next time you see a car accident, you could be watching insurance fraud in action. In most cases, the driver and accident victim are the only ones in on the scam. In other cases, the driver, victim, insurance investigators and even some of the bystanders that give statements are also involved in the fraud. The value of the vehicles is greatly inflated and the insurance payoff is for two totalled vehicles.

3. Car Damage

In such cases, Some people will report a small car accident, get an estimate for damages, collect the insurance check and then not get the car fixed. This is single most common form of auto insurance fraud going on, and it happens constantly. The people doing it see no harm in it, but the money the insurance company pays out comes from premiums paid by other customers, which will go up the more often this f is committed.

4. Health Insurance Billing Fraud

Unfortunately, health care professionals(Doctors/ Medical Practitioners) involved in such cases. One form for health care providers to bill health insurance companies a high fee for a standard procedure, or to bill for services that were never rendered.

For example, you may go in for a regular check-up but your doctor decides to bill your insurance company for an in-office surgical procedure that never happened. The patient is the victim of fraud and does not even know it.

5. Unnecessary Medical Procedures

It has also found that doctors often order their patients to go for unnecessary of multiple testing. Sometimes patient with sore arm may be asked to go for series of a blood test that has nothing to do with sore arm,

6. Staged Home Fires

Homeowners insurance fraud costs insurance companies and their customers billions of dollars each year. One of the most common form of homeowners insurance fraud is the staged fire or act of vandalism. This can be done in one of two ways. The homeowner either removes important family items before the fraud takes place, or the homeowner makes sure that the insurance company knows the value of the expensive items and then has them destroyed.

In almost every case of a staged home fire, the homeowner is not home and can account for his whereabouts when the event took place. Criminals are hired to set fire to the home, or break in and vandalize the home to make it look like the homeowner was victimized.

7. Abandoned House Fire

One of the most common forms of home owners insurance fraud is the abandoned house fire. It can happen for a variety of reasons, but the end result is always fraud. The homeowner could have been transferred to a different city because of his job and cannot sell his property, or a landlord owns a home in a neighbourhood that is no longer popular and cannot get tenants to help pay the mortgage.

If it is found that scene of an abandoned house fire after the flames have been put out, you will see at least one fire inspector for the insurance company on site. This is an extremely common kind of insurance fraud that not only causes premiums to go up, but it also puts the buildings next to the abandoned home in jeopardy as well.

8. Storm Fraud

Criminals will take advantage of any situation to commit insurance fraud, including a major storm. A common form of fraud that happens in the wake of major storms is homeowners will either enhance the storm damage to their home to get more of a settlement, or the homeowner will take advantage of how busy the insurance company is and call in a claim even if there was no storm damage.

9. Fake Death

This form of insurance fraud is so common that it has been the plot of many movies, television shows and books. A criminal will take out a life insurance policy on himself and make his spouse the beneficiary. After the

policy has been in effect for several months, the insured criminal fakes/ pretend his death and his spouse is paid the death benefit. When the funeral is over, the spouse suddenly disappears and the insurance company is out the death benefit.

10. Renter's Insurance

People who rent homes or apartments will often take out inexpensive renter's insurance policies to cover the cost of their possessions. Prior to moving out of the home or apartment or when financial times get bad, the insured will sell their possessions and then report them stolen to collect the insurance money.

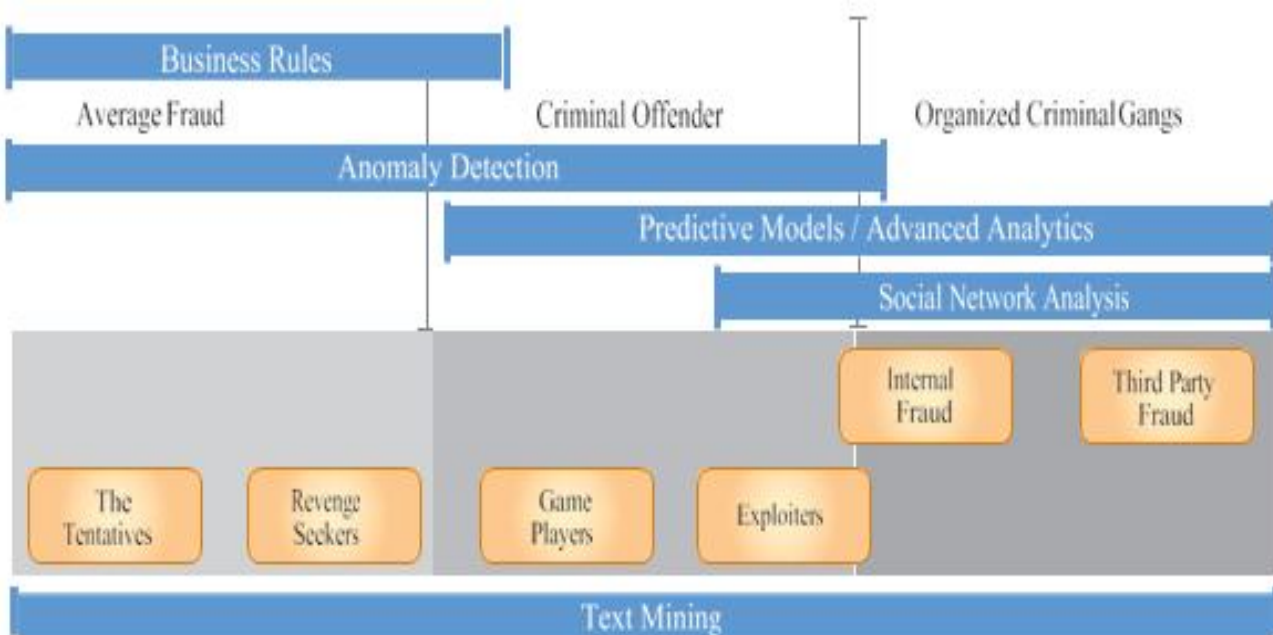
Insurance fraud affects everyone in some form or another. When your auto insurance premiums go up, that is partly due to insurance fraud. If you know of insurance fraud that has been committed, then you should report it to your state department of insurance immediately.

- Selective Key Techniques applied by Insurance Companies for Detecting and Preventing Fraud -

It is impossible to predict future trends in fraudulent activities. Fraudsters continually become more inventive and resourceful – and evasive. Push hard in one area, and they will shift their focus somewhere else. Change thresholds and models, and they will soon discover the new limits and skirt around them.

If such environment Insurance Companies too have invented certain techniques for detecting and preventing frauds in their business by using combination of approaches and by exploiting the advantages of analytic -based techniques. Insurers have more opportunities than ever to recognize fraud and stop it before it occurs.

Let's take a look at prevailing techniques that insurers should include in their arsenal of anti- fraud strategies.



Anti-fraud techniques for combating opportunistic and organized fraud

1. Business Rules and Database Searching

These systems flag any claims that look suspicious due to their aggregate scores or relation to threshold values. Claims that have been flagged for review can be further investigated using database searching. With this approach, companies subscribe to database search services offered by various vendors. The availability of the huge bank of collective data, powered by search interfaces, allows adjusters and investigators to view massive amounts of information from numerous sources .

Nonetheless, business rules, flags and database searches are a good first line of defense, screening claims to funnel into further automated fraud-detection methods.

2. Anomaly Detection

With anomaly detection, key performance indicators (KPIs) associated with tasks or events are baselined, and thresholds are set. When a threshold for a particular measure is exceeded, then the event is reported. Outliers or anomalies could indicate a new or previously unknown pattern of fraud.

An experienced analyst can take the data and quickly generate reports that identify potential problems and direct future investigations more effectively.

3. Predictive Modeling/Advanced Analytics

In recent years, many insurers have turned to predictive modeling processes, reducing the need for tedious hands-on account management. Adjusters simply enter data, and claims are automatically scored for their likelihood to be fraudulent and made available for review .

As criminals adopt new approaches, models must be updated to reflect new patterns. In spite of these limitations, predictive modeling shows great promise.

4. Social Network Analysis

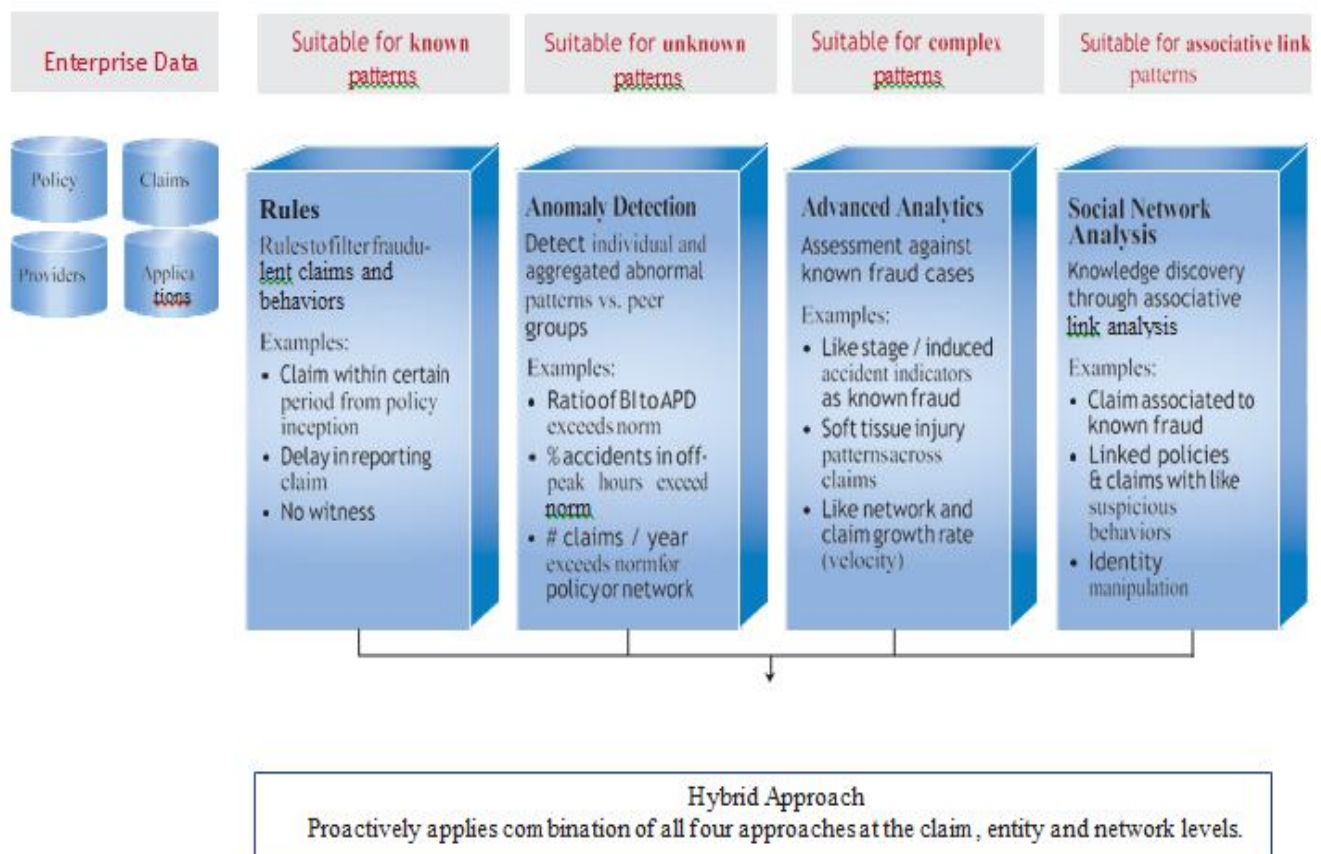
Social network analysis has proven effective in identifying organized fraud activities by modeling relationships between entities in claims . Entities may be defined as locations, service providers, telephone numbers and Vehicle Identification Numbers – to name just a few. Large volumes of seemingly unrelated claims can be checked, and then patterns and problems identified. Social network analysis can be fully automated, with the system continuously updating the interrelated networks with new claims and policies and re-scoring for fraud. Insurers have successfully used link analysis to identify the presence of organized fraud rings and take appropriate action . Furthermore, using these linking and network scoring techniques, not only can insurers avoid paying fraudulent claims at first notification of loss, but they can also check new policies for connections to historical fraud to avoid proliferation of fraud.

5. Text Mining

The claims process collects and generates large volumes of text-based information, such as adjuster notes, emails, customer service calls and claimant interviews. Text mining software accesses the unstructured text, parses it to distill meaningful data and analyzes the newly created data to gain a deeper understanding of the claim. A new area of text mining is the ability to analyze the huge amount of data available within the social media world . Investigators are now searching Facebook, YouTube and other social media websites for discriminating evidence of the claimant .

6. The SAS® Fraud Framework

The SAS Fraud Framework for Insurance provides an end-to-end solution for detecting, preventing and managing both opportunistic and professional fraud across multiple lines of business . The framework includes components for fraud detection, alert management and case management, along with the unique ability to uncover hidden relationships among fraudsters, enabling insurers to focus on stopping the highest-value fraud networks .



The SAS Fraud Framework for Insurance enables the systematic detection of suspicious activity using a combination of analytical techniques (business rules, predictive modeling and anomaly detection) to determine the likelihood of claims fraud. The solution also includes SAS Social Network Analysis, as well as a unique network visualization interface that helps insurers detect and prevent organized claims fraud by going beyond transaction and account views to analyze all related activities and relationships at a network level. The SAS approach provides enhanced fraud detection and improved operational efficiency while decreasing fraud spending from a total cost of ownership perspective.

CONCLUSION

Insurance fraud is not a victimless crime. When people cheat insurance companies out of money, the honest people that pay premiums pay through increased insurance costs. Insurance companies lose an estimated \$30 billion per year in insurance fraud costs that have to get passed on to bill-paying consumers.

The Tom & Jerry show is going on in insurance sector where fraud people are finding out new ways of doing fraud while on other hand insurance companies are investing more money and human power to curb, detect such fraudulent practices.

SUGGESTIONS

- There is need for a law to stop such fraudulent practices because the absence of strict punishment or a jail term, like for criminal activities, is yet another hindrance in curbing frauds. Even if individuals are blacklisted, many find ways to relocate to a different region and operate with different bunch of people.
- Furthermore, there is a need to amend some laws that give access to insurers. There is a law enacted before insurance was privatised which directs hospitals to share information only with the Life Insurance Corp of India.
- A beginning has been made with the creation of the database. Deterrents either in the form of scrutinising policies at entry level or using analytics, forensics, credit bureaus, courts should be used to insure cover against frauds.

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IOT AS A BOON FOR FARMERS

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ABSTRACT

Our research is on 'Agro-Saviour' project which is IOT based technology. Internet of Things (IoT) conceptualizes the idea of remotely connecting and monitoring real-world objects (things) through the Internet. Our aim is to provide an integrated solution for farmers to make their daily activities simple, effortless, safe and smart using the application. Agriculturist and any common man in rural area who wants to manage growth and sustainability in their fields and provide security to their land and related activities can use this setup.

There are some problems on which we are working through this project. Firstly, the idea is to protect the farm which is in the process of cultivation from the birds and animals. Secondly, to prevent cattle's and crops from fire accident due to climatic changes. Lastly our research focus is to identify an indicator of raise in water level of the dam in case of heavy downpour. A recent example is Kerala floods. Our finding will help the residents to be alert during natural calamity. This setup also provides Offline Facility.

Keywords: IOT, Agro-Saviour, Growth, Sustainability, Protect, Farmer, Fire, Birds, Water-Level

INTRODUCTION: - BACKGROUND

In today's techno-savvy world, each citizen is trying to update their lifestyle and to adopt the change happening rapidly in every sector. The basic and one of the most important needs to live is the healthy food. But the sad part is, the sector which provides all of us with the essential factor i.e. agriculture sector is not updated that much in relevance to other sectors.

It takes a lot of efforts for farmer to take extra care of their farms. Especially, when the crop is about to yield the specific outcome. Then extracting the components for organic fertilizers from the residuals and store them. After a successful yield of the crop, the residuals (i.e. the outer cover of the seeds, extracted grass and stems of the vegetables) are stored in a wide-open area in the form of Bundles. This is to be protected by getting burned out due to continuous absorption of heat. Considering all these issues, we came up with a solution by which we can at least reduce some efforts of farmers.\

OBJECTIVES

The main objective of this IOT based 'Agro-Saviour' is to provide some smart and quick accessible functionalities for farm and related activities to reduce some tasks of the farmer.

If the farmer is been provided with better facilities, then indirectly we are leading to a healthy lifestyle as we totally rely on them and nature for our basic needs.

PROBLEM DEFINITION

- People are pursuing ever-growing high quality of their lives today. This leads to more and more facilities and home appliances poured into their surroundings.
- How to control and manage these versatile facilities and appliances in a farm?
- Usually, in today's world applications are used as smart, technical, quick handling tool for Internet of Things. It becomes very difficult to follow traditional methods in the defense of natural calamities, or to guard the farm and to operate various equipment from certain distance for a farmer. How to help them?

The Agro-Man (Farmers) is trying to inculcate the technology available for their betterment of quality, quantity and growth. The farmers are facing a lot of problems regarding security, maintainability and planning the future of farm according to the future and nature aspects.

Some of the major issues we found in our research are

1. To protect the crop from birds and animals which is in the process of growth and cultivation. Nowadays, one scarecrow is not enough to distract so many flocks of birds fetching for food at a time. Which in return spoils the growth of the seeds, damages the crop quality and sometimes also leads to contribute to the issue of financial crises due to not delivering the Requirement on time.
2. Once the crop growth is enough, and the crop yields the specific output, the field goes under the process of separation of freshly grown produce from the farm. The residuals are then bundled and kept for other use. But due to the photo-absorptive property, the amount of heat absorbed increases rapidly in hot weather

climate. Which sometimes burn the crop. It creates a huge amount of flames of fire if not handled properly. This involuntary activity damages the field completely. It also damages the fertility of the soil which creates a huge loss for a farmer.

3. The main basic source of any field is Dam or groundwater. But the water level of the dam cannot be controlled. It creates a big Natural Calamity. A recent example is Kerala. Huge loss in many ways like daily routine, lack of food, money, time. Many people lost their life's. The whole Efforts, Time and Money is wasted. If the proper awareness and information would have been provided then some preventive measures would have been taken.

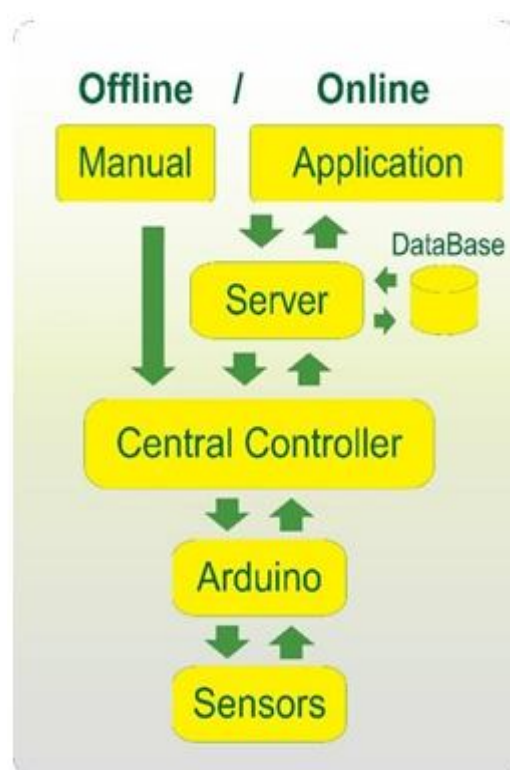
Solutions

1. Invisible Scarecrow: To detect the Motion of Birds/Animals/Intruders at night, Passive Infrared sensor is been provided in our system.
2. Fire protected shed: To detect the fire due to the imbalance of natural circumstances, a Flame sensor is been provided in our system.
3. Water Level Detection and Awareness: During monsoon seasons due to heavy rainfall the dams tend to overflow, and people do not get that information. That's why we kept a water level indicator which detects the level of the water, so that we can create an awareness about it. When the water flow exceeds it gives a buzzing sound to inform the people.

PROPOSED SYSTEM

In proposed system, NodeMCU (main controller) is connected to respective Arduino board (micro controller) using serial communication to control device. Proper commanding is done from an Android application. GUI provides functionalities such as: devices/sensors can be turned ON or OFF which are connected to Arduino through relay board. If any type of danger/alert is detected then user gets the notification, a buzzer will ring in the field. The app will continuously show the status of the devices on the application.

- **Block diagram/Flowchart of proposed system:**



- Modules are as follows

1. Invisible Scarecrow i.e. Motion-Detector Module

PIRs are basically made of a pyroelectric sensor which can detect levels of infrared radiation.

- Its Sensitivity range: up to 20 feet (6 meters).
- Power supply: 5V-12V input voltage.

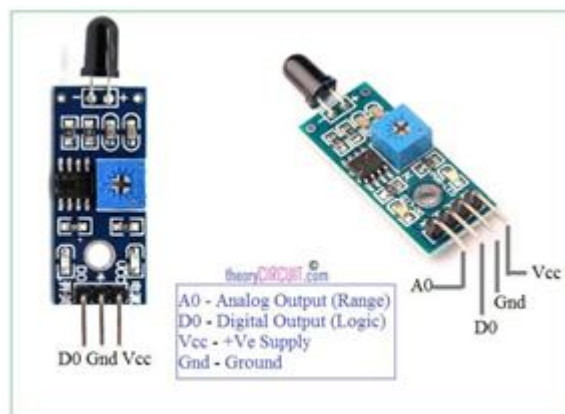
In motion detection module (PIR sensor), the unit output is high whenever motion of any living thing is detected. In simple terms, it is a motion detector. This sensor measures infrared radiation from sensing the objects in the field of view. Apparent motion is detected when an infrared emitting source with one temperature, such as human body, passes in front of a source with another temperature, such as the wall.



2. Fire protected shed i.e. Flame - Detector Module –

The flame sensor used in this project can detect flame at wavelength 750 nm to 1100nm.

- The angle of detecting an object is 60-degree
- Sensitivity can be manually adjusted
- Operating voltage provided is 3.3-5V
- A certain distance is maintained, to avoid damage to the device.

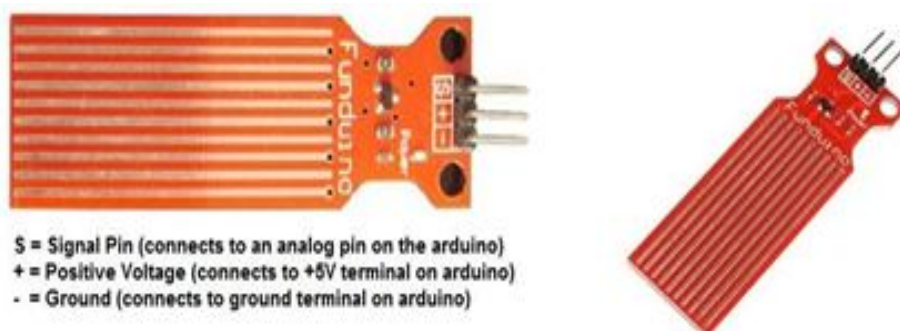


3. Water Level Detection and Awareness

This low-cost Circuit is very useful for the automatic controlling of water level while filling the containers. As the water layer crosses the level which is predefined, the corresponding LED glows.

Thus, this circuit can detect the current content of water in the container or the dam

- This is a simple water level detector circuit that automatically switches pump ON or OFF when a pre-set water level is reached.
- It can be powered by a (3v to 5v) battery. It is very easy to use.



FEATURES

1. Connectivity and Portability - Users need not be present on the field to operate the sensors. It helps the Farmers in managing, accessing and guarding the region from anywhere because, on a click activity connect them to device rapidly, thus, speeding up the whole process.
2. Secured - The system is designed in such a way that it helps to secure the user's personal information. Their information would not be revealed anywhere to the third party.
3. Ease of access - Our custom application provides easy and user-friendly interface for quick access.

CONCLUSION

Thus with the help of our proposed system in Agro-Saviour project by implementing IOT as a one-step solution, we can protect the farm which is in the process of cultivation from birds and animals, we can prevent animals from catching fire and we can identify an indicator of raise in the water level in case of heavy downpour(floods). Currently, we are combining these three functionalities, but these modules can be implemented individually. As this topic is vast, many solutions we are planning further.

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DEMONETISATION AND FINANCIAL INCLUSION: A SURGICAL SUMMARY

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ABSTRACT

As a surgical strike, demonetisation was an revolutionary action taken by the government for black money and other related issues. But it had a great impact on the people who were financially excluded, many group of people were mainly financially excluded. The study is to understand the effect on demonetisation on financially excluded people and also to understand that financial inclusion is coming up as a measure for achieving inclusive growth. Financial inclusion is where individuals and businesses have access to useful and affordable financial products and services that meet their needs that are delivered in a responsible and sustainable way. Financial inclusion is defined as the availability and equality of opportunities to access financial services. The objective of the study to understand meaning and reasons of demonetisation, to study the sector-wise impact of demonetisation, to study the positive and negative impacts of demonetisation. This study is based on secondary data.

OBJECTIVE OF THE STUDY

1. To understand meaning and reasons of demonetisation.
2. To study the impact of demonetisation on different group of people.
3. To study the positive and negative impacts of demonetisation.

RESEARCH METHODOLOGY

This study is of descriptive nature and tells about the meaning and reasons of demonetisation along with the sector-wise impact of demonetisation and positive and negative impacts of demonetisation on Indian economy. Hence makes use of secondary data. The entire study is based only on observation and documentary analysis. Furthermore, the required & relevant secondary data are collected from various Research Papers, Journals, & Publications, websites and many others. Books have also been referred for theoretical information on the topic as required.

INTRODUCTION

Mahatma Gandhi said that "India lives in its villages". Even today over 70% of Indian population lives in its 6.3 lakh villages. Clearly, no developmental effort is complete without a comprehensive coverage of this 'Real India'. For this India is trying for inclusive growth, i.e., all sections of people contribute to benefit from economic growth of the country. Financial Inclusion has come up as a key measure for achieving inclusive growth. Although the degree of financial inclusion has improved still India has a long way to go to become digitally financially included. On the night of November 8, 2016, our honorable prime minister Shri Narendra Modi, made a surprised announcement of withdrawal of the legal tender money of Rs. 500 and 1000 denominations from the market with immediate effect. The scheme, popularly called 'notebandi', was introduced in order to eradicate black money, corruption, financial crimes and make India cashless digital economy. India will take time to achieve the objectives of demonetization as it is not an overnight affair and to achieve financial inclusion along with making India a cashless and digital economy, efforts are required to make technology reach the bottom of the pyramid.

Financial inclusion

The term financial inclusion has gained importance since the early 2000. But there are evidences that a large section of population is still excluded from the formal financial services. RBI and Government of India are very much concerned about the financial inclusion and are taking various initiatives to achieve it. Financial Inclusion has gained momentum over past few years as an important national initiative for including the poor into formal financial system by making available a variety of essential financial services such as savings, credit, insurance, cash payment and transfer facilities at an affordable cost for poverty reduction and social enhancement of underprivileged section. In broad financial inclusion should include access to financial products and services like:

- Bank accounts
- Immediate credit
- Savings products

- Remittance and payment services
- Insurance- health care
- Mortgage
- Financial advisory services
- Entrepreneurial credit

The following group of people is mainly financially excluded:

- Poor
- Socially underprivileged
- Disabled
- Old as well as children
- Women
- Uneducated
- Ethnic minorities
- Unemployed.

FINANCIAL INCLUSION IN INDIA

The government of India has taken various measures for financial inclusion. The proportion of adult population with a bank account has increased to 65 percent with the financial inclusion reforms in India over the last 5 years. However, a substantial 23 percent of those accounts remain dormant, indicating that it will take a lot more than just opening formal bank accounts for the financially excluded to be truly included. Table below shows the degree of financial inclusion in India in comparison to other emerging and advanced economies of the world.

Table: degree of financial inclusion (2014)

Indicators of financial inclusion	Advanced Economies	Emerging Economies	India
Account at a financial institution (% age 15+)	95.85	67.88	52.75
Commercial bank branches (per 100,000 adults)	33.57	19.41	11.38
Automated teller machines (per 100,000 adults)	136.45	86.38	11.21
Debit card (% age 15+)	84.50	49.48	22.07

Source: R. Bhattacharya, Demonetisation under Incomplete Financial Inclusion, *National Institute of Public Finance and Policy*, 30 November 2016. Retrieved from <http://nipfp.org.in/blog/2016/11/30/demonetisation-under-incomplete-financial-inclusion/>

The above table reveals that as on 2014, 96 percent of the population above 15 years of age holds account at a financial institution in advanced economies while only 53 percent of the same age group have an account at a financial institution in India. It was also found that the number of commercial bank branches catering per 100,000 population in advanced economies is 3 times higher than in India whereas the number of ATMs available to per 100,000 population is more than 11 times higher in advanced economies and 8 times higher in other emerging economies than in India. While 22 percent of the population above age 15 holds debit card in India, the corresponding number for emerging economies and advanced economies are 49 percent and 84 percent respectively. Keeping this in view, government launched a financial inclusion scheme called Pradhan Mantri Jan Dhan Yojana on 28 August 2014. The purpose of the scheme was to open zero balance saving account for every unbanked Indian household, providing access to financial literacy, credit and pension. Under this scheme, as on 28 October 2015, 19.02 crore accounts have been opened, out of which 11.58 crore accounts are in rural areas and 7.44 crore in urban areas. With this scheme, the bank account penetration increased from 35 percent to 53 percent during last three years, however, 74 percent of these new accounts remained non-operational with zero balances. With the introduction of digital financial services i.e. access to financial services through numerous electronic platforms, the concept of digital financial inclusion has also gained a lot of

importance in recent years. People who are digitally financially included transact digitally using debit/credit cards, point of sale (POS) machines, online banking, and mobile financial services. As per the latest Financial Inclusion Insights survey, 49 percent of Indian adults are digitally included. However, usage of these digital accounts remains debatable.

EFFECT OF DEMONETISATION ON FINANCIAL INCLUSION IN RURAL INDIA

As the larger portion of Indian population resides in rural areas, the economic growth of the rural people is the stepping stone towards the overall economic development of the country. The Government of India is therefore taking all possible steps to bring the financially excluded people under the formal financial system. The demonetization with the objective of cashless transaction and digital economy has created a tremendous impetus on financial inclusion in rural India. The effects of demonetization have been very worrying in the rural parts of the country because they mostly depend on cash and they have limited physical accessibility to banks and other financial institutions. Visiting physical bank branches in rural areas still remains a time consuming and costly affair for many. Most of the people in these areas are contract labourers, daily wage workers, farmer, micro entrepreneurs who don't even have a formal bank account and thus are financially excluded. Cash is their only means of receiving income and making payments. The demonetization has led to a situation of cash crunch in the economy which has created a huge disruption on work and daily lives of these people with severe adverse impacts on their livelihoods and well-being. The Micro-Finance Institutions being the key player in the financial inclusion drive catering to the financial needs of rural and semi-urban rural population is also facing the serious problem after the sudden announcement of demonetisation. Around 85% of the loan disbursements by the microfinance institutions (MFIs) and close to 95% repayment or collection of loans have traditionally been in cash. The sudden disappearance of the old notes and the slow replacement by new notes hit the industry hard in the second week of November when the so-called demonetisation came into effect. Yes, the Rs. 100 currency notes, the mainstay of relatively smaller MFIs when it comes to loan disbursements and repayments, have been in circulation, but people have been hoarding this as it is difficult to get change for Rs. 2000 and Rs. 500 currency notes continue to be in short supply even now. The industry is limping back to normalcy, but the aggressive push to a cashless economy will force the MFIs to change their business model if they want to survive. Talking about demonetization with the objective of cashless economy need the people in rural areas to be technology savvy which is not that popular in such areas due to lack of education and also financial education, on the contrary, though demonetisation has led the people to compromise their work and stand in long queues in front of the banks but the wealth produced and saved by the poor can be brought into the formal banking system. After current demonetization drive the financial inclusion is being carried out in various ways as people are seeking respite from the currency shortage. People are being forced to use electronic banking services and digital platforms. Banks have been pushing the cause of complete financial inclusion. Demonetization has become blessing in disguise to the cause of financial inclusion. It is resulted in rapid banking education to the vast multitude of unbanked and semi-banked population otherwise impossible.

CONCLUSION

Just like the two sides of a coin, demonetisation is also two sided with both positive and negative impacts. It is a hardship for both Government of India and the ordinary people in the short run but in the long run we can expect encouraging rewards in the interest of the country. In order to achieve financial inclusion in this demonetisation phase, there is the need of more and more expansion of bank branches in rural areas; changes in the financial delivery model of various microfinance institutions; financial literacy to be deeply reached in rural areas and efforts are required to make the technology reach the bottom of the pyramid. Indians demonetisation could be the push the country needs to move to digital banking, but it will take more concerted government efforts to promote a long-term transition.

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ARDUINO BASED SMART AGRICULTURE SYSTEM

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ABSTRACT

This work aims at developing an entirely automated crop watering system. The main motivation behind this system is to effectively manage the amount of watering of the plants and conserve the wastage of water. It also aims at reducing errors due to human negligence human labour and effort. Solar panels are used to provide energy and is used to run the system during daytime and charge the batteries to operate at night. To sense the level of moisture in the soil it uses moisture sensors. The pump system is triggered and the crop is watered when the moisture content of the soil goes below a certain limit for a crop. The pump is switched off automatically and the plants are watered efficiently till the desired value is reached. Smart farming based on IoT technology has brought revolution to each and every field of common man's life by making everything intelligent and smart and Purpose of this project to have a smart IoT based agriculture assisting farmers in getting live data like Soil moisture, temperature for efficient environment monitoring which will enable them to do smart farming and increase quality of products and their overall yield. this project is integrated with breadboard mixed with Arduino technology and various sensors and live data feed can be obtained online. from ThingSpeak.com. project is provided to obtain data on android phones with Bluetooth module through App.

Keywords: Solar Panel, Arduino, Moisture Sensor, Water Pump, Moisture Indicator.

I. INTRODUCTION

India is an agricultural country, India ranks second worldwide in farming output. Presently farmer irrigates land at regular interval manually. Process consumes more water and time the water reaches late due to which the crops get dried water or sometimes. Smart farming irrigation system using solar power not only overcomes this problem but also provide clean source of energy. The high demand for energy, the continuous decrease in existing sources of fossil fuels and the growing concern regarding environment pollution, have pushed mankind to explore new non-conventional, renewable energy resources such as wind energy, solar energy, etc for the production of electrical energy. In this paper focus is on agricultural cultivation and production. The production, packaging, preparation, distribution, etc. of food also generates a lot of income. The aim of this paper is to exploit modern technologies and tools to improve monitoring and management of crops, in order to improve the sustainability and efficiency of food production and farming. A system is designed for precision agriculture, which relies on a wireless sensor network combined with a service to provide individual farmers with access to data that they find useful. The system utilizes wireless sensor nodes that transmits and collect data about the quality of the water supply, the soil, and other parameters in an agricultural field. One of the key innovations to be explored in this paper is the combination of these sensors systems with a service-driven business model is to amplify the gains that can be realized via an integrated system and increase their ease of use. The goal is to give a farmer a more complete picture of the historic crop and the current crop status in order to foster better informed decision making. It is expected that such decisions will benefit both irrigation and farming by saving time and resources. The diversity of conditions which vary depending on location (for example presence of insects, weather, and disease) combined with the inability to predict the future characteristics of the environment during the different seasons over time require specialized knowledge and complicate the decision making process. This paper is an attempt to bring some of these micro-environmental sources of information into the decision making process of farmers.

II. AIM OF THE WORK

Different components/sensors like (i) Moisture sensor (ii) Temperature sensor (iii) Humidity sensor (iv) Solar panel and battery are used to tackle different problems of farmers. With the help of GSM technology, information regarding emergency situation may be send to the farmer so that they may take necessary action in unavoidable situations so that it will work as a link between farmer and microcontroller.

III. WORKING OF THE HARDWARE

First of all we will have to take the data from various sensors- LDR sensor, Temperature sensor, soil moisture sensor, humidity sensor and ultrasonic sensor. These sensors provide information to the Arduino UNO. Arduino UNO informs about the sensor values and its necessary actions to farmer and takes necessary action/decision also through farmer's cell phone by message with the help of GSM module.

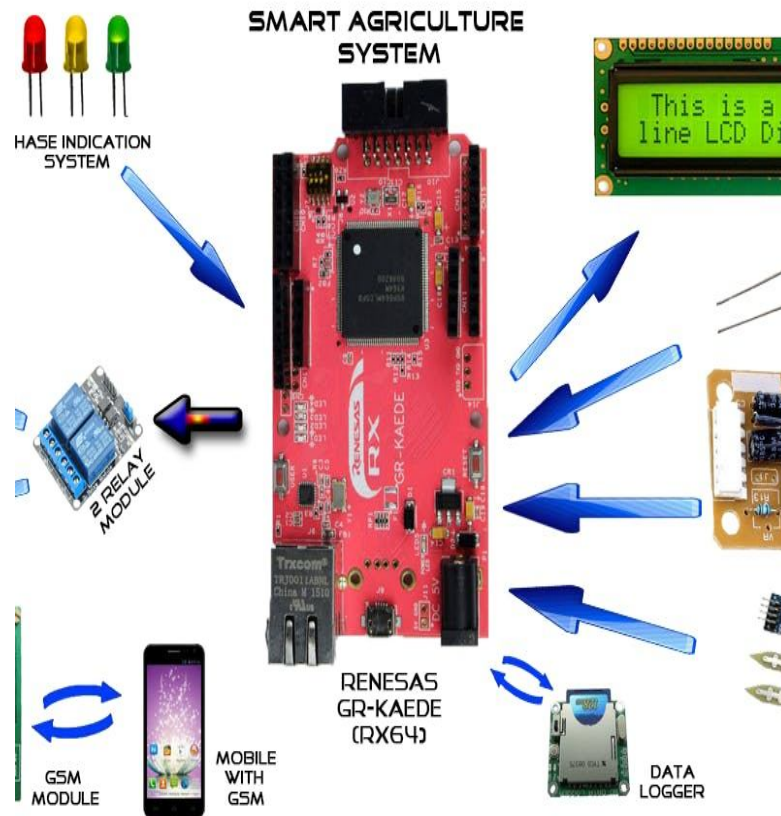


Figure 1: Smart agriculture setup

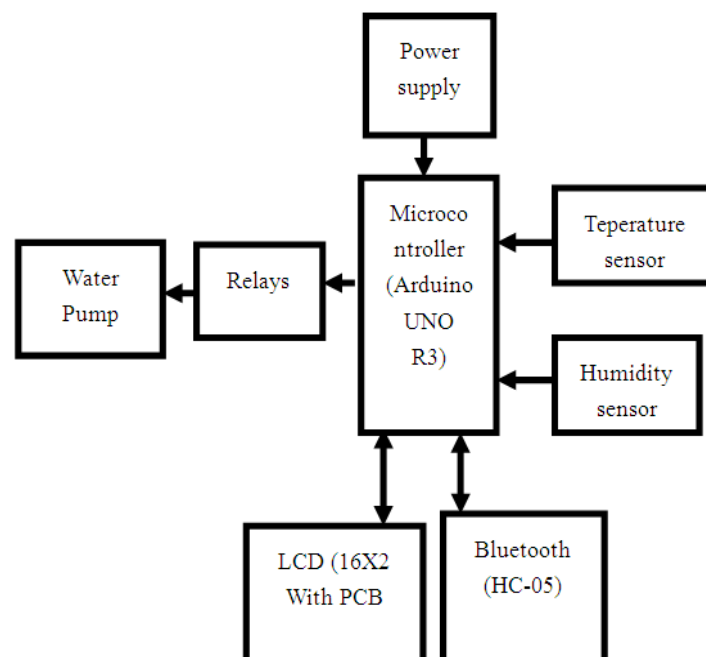


Figure 2: Block Diagram Figure

Make the connections as described in the image. Connect the Arduino uno with the 5V power supply using a simply 12V battery and then connect the soil moisture sensor, temperature sensor, smoke/gas sensor with Arduino. Using a 3V power supply the WI-FI module(ESP8266) is then connect to Arduino. Connect WI-FI module using commands on Arduino IDE for WI-FI connectivity.

IV. ARDUINO UNO

The Microcontroller used here is an Arduino UNO. The ARDUINO UNO is a Microcontroller board based on ATMEGA 328P. The ATMEGA 328P has 32kB of flash memory for storing code. The board has 16 MHz quartz crystal, 6 analog inputs and 14 digital input and output pins, USB, a reset button and an ICSP circuit. The Arduino software can program Arduino UNO.

V SENSORS:

a) SOIL MOISTURE SENSOR

To measure the moisture content present in the soil, soil Moisture sensor is used. Low level (0V) will be the digital output and if it is below the threshold level, when the soil moisture value read by the sensor is above the threshold value, high level (5V) will be the digital output. To directly read current soil moisture value to see if it is above threshold or not the digital pin is used. The threshold voltage can be adjusted with help of potentiometer.

b) DHT11 SENSOR

DHT11 sensor is used for measuring humidity and temperature. to measure the surrounding air it uses a capacitive humidity sensor and a thermistor. This sensor , provides low power consumption and up-to 20 meter signal transmission is possible and is cost effective.

c) PRESSURE SENSOR

PCB will transduce it to differential pressure signal thereby it can be used for weather forecasting. For measuring trace of differential pressure the differential Pressure transmitter is used.

VI. GSM MODULE

the European Telecommunication Standards Institute (ETSI) developed the Global System for Mobile Communication to describe protocols for second-generations (2G) digital cellular networks used by mobile phones. GSM describes a digital data communication and also expanded to include, circuit-switched network optimized for full duplex voice telephony, packet data transport via GPRS (General Packet Radio Services). The longest distance supports in the GSM specification in practical is 35 kilometers.

VII WI-FI MODULE

The ESP8266 Wi-Fi module is a self - contained SOC (System on Chip) with integrated TCP/IP (Transmission Control Protocol/Internet Protocol) protocol stack that can give any microcontroller access to any Wi-Fi network. Each module of ESP8266 comes pre-programmed, it can be simply connected up to Arduino device to get Wi-Fi ability. This module has a powerful enough on-boarding process and high storage capacity that allows it to be integrated with the sensors and other application specific devices.

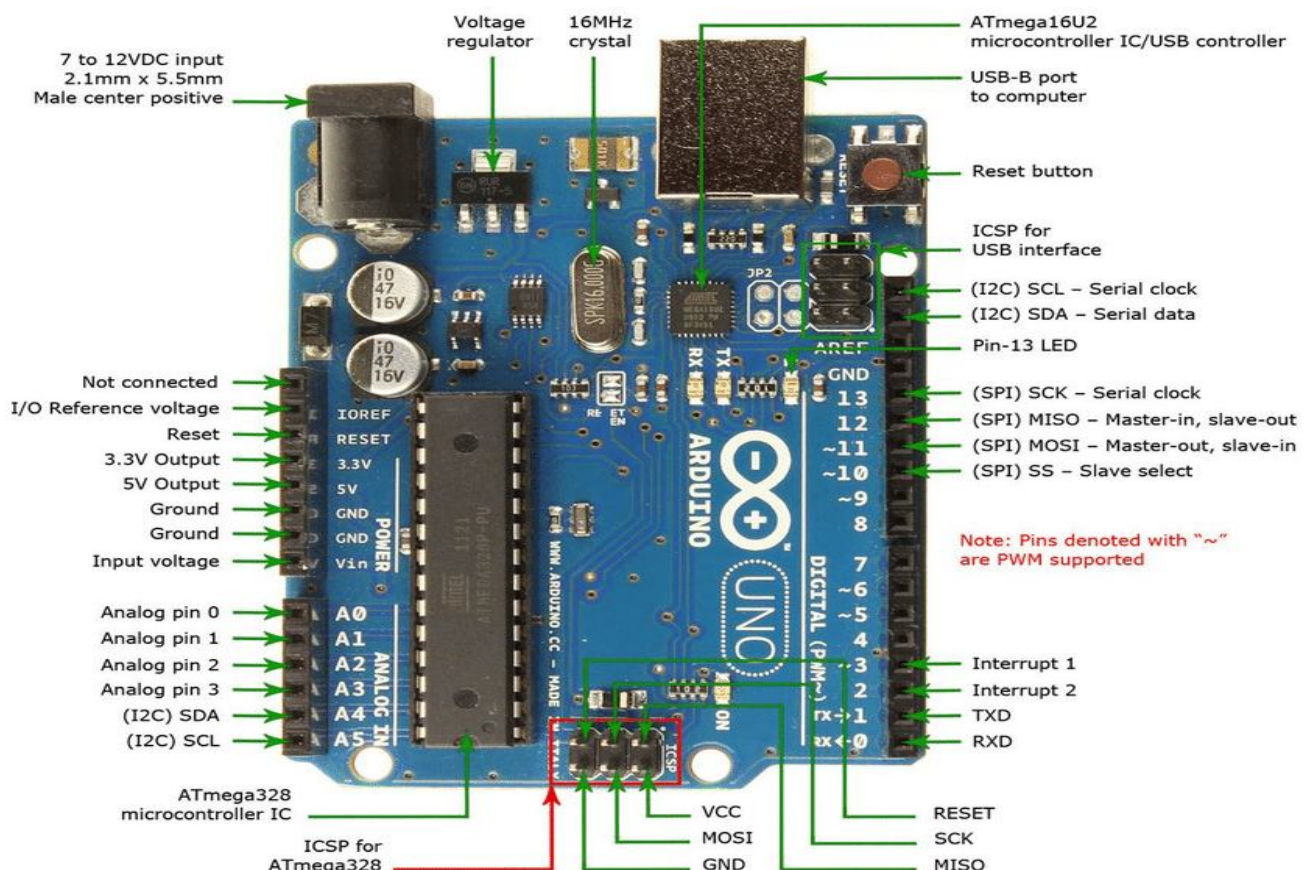


Figure 3 : Arduino uno 328 pin diagram

VIII. RESULT AND DISCUSSION

The solution is given to water Problem, it will control the pre specified water level in the farming system for overall growth of the plants. For overall control various types of sensors are used like temperature sensors are used which sends signal to the UNO so that it will switch ON or OFF the fan according to the situation.. In this way it may be said that the work is highly useful for Indian farmers as solar panel with battery gives additional facility of the electricity.

IX CONCLUSION

The developed system is Simple and cost effective than most other systems present in the market. It measures different environmental conditions. It includes measurement of relative humidity, atmospheric temperature and soil temperature, etc. for the data transfer, system uses wireless module for communication purpose. So it can be use in greenhouse as well as in open fields as the range of wireless module is up to 25m with / without different obstacles like trees, benches, walls, cupboard, magnet, etc. System becomes flexible, robust, with the use of wireless module etc. If there is need of relocation then it can be easily done and sensors can be placed anywhere in the field. It is found that all the sensors work with minimum deviation in output when the system is also tested for different temperature. Drip irrigation, directly provides water to the roots of the crop. Thus water resources are optimized to obtain better crop yield and wastage of water is minimized. This system is advantageous to farmers as it helps farmers in fighting the diseases and saves water but also. Thus it will increase the yield of the crop.

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A STUDY ON 'PERCEPTION OF FACULTY MEMBERS OF DEGREE COLLEGES IN MUMBAI TOWARDS USE OF ICT IN TEACHING'

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ABSTRACT

Advances in technology have shaped and changed our world in ways that no one could have ever predicted. Business, recreation, and yes even education, have been deeply impacted by things like the internet, cell phones, and computers.

The use of ICT in teaching-learning process is a relatively new phenomenon and it has been the educational researchers' primary focus. The effective integration of this technology into classroom practices poses a challenge to lecturers and administrators. This study aims at finding out the factors influencing the use of ICT to make teaching learning more effective in higher institutions of learning in Mumbai and identifying the distinctive innovations that ICT has brought into teaching-learning process. The paper also addresses the opportunities and challenges posed by integration of ICTs in teaching learning process in the present scenario.

Keywords: Information and Communication Technology (ICT), ICT in Higher Education, Teaching-learning process.

INTRODUCTION**Introduction to Information and Communication Technology (ICT):**

ICTs stand for Information and Communication Technologies and are defined, for the purposes, as a "diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information." These technologies include computers, the internet, broad casting technologies (radio and television), and telephone.

Whether you are starting as an elementary student or are going to a college for higher education, use of ICT as a new mode of classroom teaching has emerged as an advantage. For teachers in particular, this mode of teaching has proved to be helpful since students have found it far more interesting as compared to the conventional techniques. With access to various interactive and appealing technologies, education has become entertaining.

ICT as a new means of learning when applied in the right manner in teaching lessons, comes out to be the most effective technique in teaching the students along with motivating them. Students can now easily get over with or find answers to their queries via direct interaction with different modes of ICT teaching. The several benefits of use of ICT in teaching makes it extremely necessary for teachers to adopt this innovative technique in their pedagogy.

OBJECTIVE OF THE STUDY

The specific objectives of the study are listed below:

- To understand the importance of use of ICT in Teaching-Learning process.
- To collect data from the faculty members regarding their perception towards use of ICT teaching techniques.
- To know the factors which motivates faculty members to take up ICT tools to supplement their pedagogy.
- To understand the factors which makes some faculty members reluctant to adopt ICT in their teaching.

RESEARCH METHODOLOGY

The current study is based on above mentioned objectives as to answer the questions like What is ICT based teaching? What are benefits of using ICT in teaching? What are factors which influence teachers in deciding whether to use ICT in teaching or not. To answer the objectives of the study & questions as quoted above, the necessary data has been gathered both Primary Data sources as well as from Secondary data sources.

- Primary Data Sources:** Prepared a Questionnaire in Google Forms and circulated among Faculty members from different colleges randomly. The Questionnaire consists of mainly close ended questions which includes MCQs, Yes/No type questions, agree/disagree matrix questions, and three open-ended questions whereby respondents are asked to open up and give their views. The data is collected from 35 Respondents (faculty members) from different streams for the study purpose.
- Secondary Data Sources:** Secondary data was collected from various newspaper articles regarding ICT in Education, scholarly articles on the issue & Websites.

ROLE OF ICT IN PEDAGOGY FOR QUALITY TEACHING LEARNING

Information and communication technology (ICT) in classrooms has every possibility of enhancing the standards or quality of education for the students. Not just the students, even the teachers are benefitted since their work is simplified. The time required to prepare the lessons apart from the additional time required to follow up the students is reduced.

ICT offers increased possibilities for codification of knowledge about teaching and for innovation in teaching activities through being able to deliver learning and cognitive activities anytime and anywhere.

Computer Based Teaching & Learning makes learning more efficient and more interesting to learners thus improving the quality of education. The knowledge deepening approach has a greater impact on learning. The main goal here is to increase the ability of learners, to add value to the education.

DATA COLLECTION & ANALYSIS

Age	No. of Respondents
21-30	14
31-40	16
41-50	05
51 & above	0
Total	35

Table – 1: Number of respondents spread according to age groups

Department Respondents work in	No. of Respondents
B.com	12
B.Sc.IT	04
Self-Finance Courses	19
Total	35

Table – 2: No. of respondents spread according to their Departments

Questionnaire & its Responses	
How often Do you make use of ICT in delivering lectures? Number of Responses : 35 Responses	Regularly - 05 Frequently - 10 Very Rarely - 17 Never - 03
Does your college promotes use of ICT in Teaching? Number of responses: 35 responses.	Yes - 26 No - 09
Does your college have a proper ICT infrastructure to support ICT enabled Teaching-Learning process? Number of responses: 35 responses.	Yes – 18 Yes, But it's not Sufficient - 13 No – 04

Factors which motivates a Professor to make use of ICT in Teaching

Number of Responses: 35Responses.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Easier planning and preparation of lessons	04	03	10	09	09
Improves Teaching-Learning Quality	06	02	09	10	08
Audio - Visual effects have a better impact than traditional teaching methods	08	01	07	09	10
Can be used to cater the different needs of	05	05	10	08	06

different students easily					
Motivation from college to use ICT in teaching	05	02	12	10	06
Gains in ICT literacy skills, confidence and enthusiasm.	07	02	09	09	08

Table – 3: Comparison of Respondents' perception towards various factors which motivates them to use ICT in Teaching

Factors which makes a Professor reluctant to use ICT in teaching on regular basis

Number of Responses: 35 Responses.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Time Consuming	08	08	09	07	02
Lack of Adequate ICT facilities in institution	07	06	09	07	06
Lack of Motivation from college	05	06	09	09	06
Lack of formal training to use ICT in teaching	04	05	08	13	05
Limited options especially while teaching Practical subjects	04	06	10	08	07
Limited Computer literacy	05	05	09	11	05

Table - 4: Comparison of Respondents' perception towards various factors which makes them reluctant to use ICT in Teaching

Which of the following Innovative ICT enabled instruments/techniques you have used at least once in teaching. [Multiple selections were allowed]

	No. of Responses
Power Point Presentations (PPT)	32
Excel Sheets	12
Video Lectures	16
Interactive boards	04
Internet - Websites, Blogs	17
Movies, Short Films, Videos etc.	13

DISCUSSION

Factors influencing use of ICT to make teaching-learning effective

- Increased Knowledge retention:

It can be seen from Table 3. As many as 29% Respondents strongly agreed that the Audio - Visual effects have a better impact as compared to traditional teaching methods. Students who are engaged and interested in things they are studying, are expected to have a better knowledge retention.

- Improves Teaching-Learning process:

Almost 23% respondents strongly agreed that using ICT in teaching makes Teaching-learning process more effective. With the help of ICT enabled teaching, interest of the students can be maintained in the lessons which otherwise are boring and considered as one way traffic. ICTs are also transformational tools which, when used appropriately, can promote the shift to a learner-centred environment.

- Benefits for teachers :

Not only using ICT in teaching can help students, but it can also benefit the teachers. The teachers who make use of ICT were of that opinion that they gain confidence & find new enthusiasm while teaching. They are able to keep themselves up to date with the latest technology & it improves their skills.

- Motivation from institute :

One - third of the respondents couldn't really decide their stand on level of motivation from their institution for promoting use of ICT in teaching. They decided to stay neutral as far as this factor is concerned. Nonetheless, the fact that strong motivation from their college can influence teachers to use ICT in their lectures was agreed by good number of respondents.

- Easier Planning & Preparations of lessons :

More than 50% of the respondents cumulatively agreed that with the help of ICT, lectures planning & preparations have become far easier and very effective. ICT facilitates sharing of resources, expertise and advice & allows greater flexibility in planning lessons.

Factors which makes a Professor reluctant to use ICT in teaching on regular basis

- Lack of formal training to use ICT in teaching-learning process:

Nearly 51% of the respondents were of the opinion that the teachers lack the kind of formal training required to make best use of ICT facilities in teaching-learning process. This makes teachers difficult to opt ICT techniques in their teaching.

- Lack of technical skills

Many respondents were of the opinion that, the lack of technical skills & knowhow to use ICT as a tool in teaching is one of the major factor that makes one to reluctant to use it. Teachers feel reluctant to use computer if they lack confidence. Fear of failure and lack of ICT knowledge have been cited as some of the reasons for teachers lack of confidence for adopting and integrating ICT into their teaching.

- Lack of motivation from college :

As many as 43% responded that they do not get motivation as such to use ICT in teaching. This hampers their willingness to take up challenge of incorporating technology in their pedagogy.

- Limited utility of using ICT in teaching :

Surprisingly many faculties of the opinion that ICT has limited use in teaching especially in case of practical subjects like mathematics, accounts etc. where they feel traditional chalk & talk method is more useful. Again Cellphone based learning tools like Apps can distract students' attention from their teacher & lesson, to whatever they are looking at, playing or doing some other things on their phones.

- Lack of proper ICT infrastructure within institution :

Today the educational institutions are required to have a proper ICT infrastructure in order to reap the benefits of ICT in teaching-learning process. Nearly 37% of the respondents noted that the available ICT infrastructure in their college is not up-to the mark & hence it is not possible for them to make use of ICT in teaching on regular basis.

FINDINGS

From the present study it is being noted that decisions made by the teachers about the use of information and communication technologies in the classroom is likely to be influenced by multiple factors including: demographic factors (like age, educational background); accessibility of infrastructure; experience in use of instructional technology, perception about usefulness, creativity in the subject and interest of the students, ease of use, motivation from college etc.

Some of the other key findings of the studies are enumerated as follow:

- Nearly 49% of the faculties use ICT in teaching very rarely which needs to be addressed in order to make teaching-learning process effective in today's digitalized world.
- It is noteworthy that 75% of the respondents recorded that their institution does promote use of ICT in Teaching-Learning process.
- Power Point Presentations (PPTs) is the most utilized ICT teaching tool as table 5 shows that it is being used by all the 32 respondents who have used ICT tools at least once (91%) to supplement their teaching. Use of video lectures and websites, blogs etc. in ICT based teaching has got over 50% response from the faculty members. Movies, Short Films, Videos etc. have been used successfully as a new innovative tool in teaching by almost 40% of the faculty members along with other tools like excel sheet (33%) & interactive boards (12%). It is worth noting that the teachers taking Mass-Media subjects are using movies, short films etc. at large to make students understand the concepts effectively.

SUGGESTIONS FOR INCREASING THE USE OF ICT IN TEACHING

In order to promote use of ICT in teaching, the present study, based on analysis of data collected, proposes following suggestions which if implemented in right spirit could influence & motivate more number of teachers to embrace technology in their teaching methods which would help make the teaching-learning process more effective.

- Motivation by the Colleges & Universities to the faculties in taking up ICT in their teaching methods is extremely required in the present context.
- Regular Seminars, Workshops should be conducted by University to give formal training to the faculties to hone their technical skills.
- More faculties should take up Orientation Programmes, Refresher Courses and other Short Term Programmes conducted by University of Mumbai aligning with UGC HRDC.
- The educational institutions must upgrade their ICT infrastructure to the latest standards so as to make it accessible to both teachers & students.
- As a matter of Academic policy, colleges should support the use of ICT as an integral part of the provision of quality education for all. They should promote the use of ICT in education as a key modern aid to teaching and learning. Ensure free access for all teachers and learners to high quality dedicated ICT facilities.
- Make a provision of Awards for rewarding the teachers using ICT for Innovation in Education.

CONCLUSION

The rapid growth in ICT has brought tremendous changes in the twenty-first century, as well as affected its adoption and integration by teachers in teaching-learning process. The effective integration of technology into classroom practices poses a challenge to teachers and administrators. The findings of this study indicate that teachers have strong craving for the integration of ICT into education but they run into many barriers to it. These findings therefore have implications for training the teachers to become consistent users of ICT focusing on acquiring basic ICT skills. Mere learning ICT skills is not sufficient, but using ICT to improve the teaching and learning is the crucial for pedagogy-technology integration

Given the size of investment being made in incorporating technology in education, it seems reasonable to explore the integration of technology into teaching and learning. Although most of the teacher's community has adopted information and communication technologies like power point slides and internet into their teaching, they are still unwilling to adopt more complex computer-based activities or other teaching pedagogy innovations, such as active learning techniques involving video-conferencing lectures.

For successful incorporation of ICT into teaching-learning process, it can be concluded that the factors that positively inclined teachers' use of ICT in education should be promoted at large. The presence of all factors as discussed earlier in study, increases the likelihood of excellent integration of ICT in teaching-learning process. Therefore, the training of teachers in the pedagogical issues should be increased if teachers are to be convinced of the importance of using ICT in their teaching-learning process.

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A STUDY OF EFFECTS OF DEMONETISATION

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ABSTRACT

Demonetisation refers to stripping the currency from legal tender and such demonetised currency can no longer be circulated in the economy. On the eve of 8th November, 2016 entire country of India was stunned with the abrupt announcement by Prime Minister Narendra Modi of demonetising Rs. 500 and Rs. 1,000 currency notes. This decision was undertaken with the objectives of bringing black money back, to get rid of counterfeit notes and terrorist financing, establishing accountability for unaccounted transactions. Demonetisation created an uproar in the country and common man had to suffer the most. The focus of this paper is to understand the need and objective for demonetisation and analyse whether the objectives were actually fulfilled. In this process we will also analyse positive and negative impacts of demonetisation and see whether the gain from demonetisation was worth the pain caused by it.

Keywords: demonetisation, currency, circulation

INTRODUCTION

Demonetisation refers to withdrawal of currency as legal tender. Year 1946 marked and first demonetisation of the country when Rs. 1,000 and Rs. 10,000 high value currency notes during that period were demonetised. These notes were again brought into circulation in year 1954 along with new introduced Rs. 5,000 notes. Again, in year 1978 then Prime Minister Morarji Desai banned Rs. 1,000 (re-introduced in year 2000) Rs. 5,000 and Rs. 10,000 notes with the aim of curbing black money. On 8th November, 2016 with the same aim Prime Minister Narendra Modi implemented demonetisation of Rs. 500 and Rs. 1,000 currency notes. The demonetisation in 1978 didn't impact economy much as notes then demonetised just formed 10% of currency in circulation but demonetisation of November 2016 had a far greater impact as demonetised notes compromised 86.9% of currency in circulation.

FRAMEWORK OF STUDY**Objective of study**

- To understand the objectives with which demonetisation was undertaken.
- To analyse whether the objectives spelled by government of demonetisation were achieved.
- To study the positive and negative impact of demonetisation.

RESEARCH METHODOLOGY

The study is based on secondary data. The secondary data is collected from newspapers, magazines, journals, Bulletins and websites.

Objectives and need for demonetisation

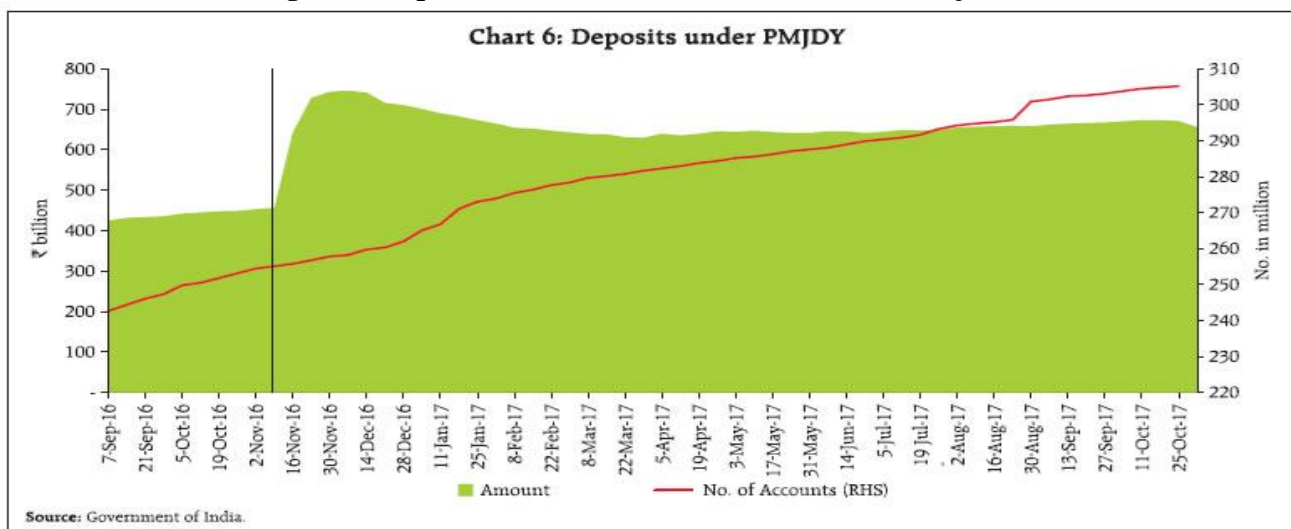
Objectives of demonetisation as announced on 8th November 2016 by Prime Minister Narendra Modi:

1. Curbing black money and corruption: Black money is income earned by way of illegal activities or income on which tax is evaded. Black money and corruption were on rise in India; due to which there was a need to restructure the system. Government had undertaken demonetisation so that the black money in form of old notes could no longer be used and black money would have been dealt with.
2. Counterfeit notes: Demonetisation was also introduced as a measure to slash the racket of counterfeit notes in circulation. Since, the demonetised notes can no longer be circulated the counterfeit of these notes would also be trashed.
3. Terrorist financing: Terrorist financing is a worldwide issue. With demonetisation the fake notes as well as demonetised notes of Indian currency with terrorist could not be white washed and hence terrorist financing would have ended.
4. Benami transactions: Benami transactions are transactions done by a person in another person's name. The person who is actually making payments is unknown. Such benami transactions are carried in cash. For exchanging old currency notes all such cash needs to be deposited in bank thereby establishing accountability of such Benami transactions.

Positive Impact of demonetization

1. Digitalisation: Demonetisation led India to the road of digitalisation and cash less economy which was a blessing in disguise. Transactions through various e-payment platforms like Paytm, UPI surged due to demonetisation.
2. Increase in savings and circulation of money: Post demonetisation cash savings increased by 2.8%. Circulation of money in November 2016 was Rs. 17.9 lakh crore which elevated to 19.6 lakh crores in October 2018.
3. Financial inclusion: 50 million new accounts were opened post demonetisation until October 2017. There was also 38% increase in deposits under Pradhan Mantri Jan Dhan Yojana post demonetisation.

Figure 1: Deposits under Pradhan Mantri Jan Dhan Yojana



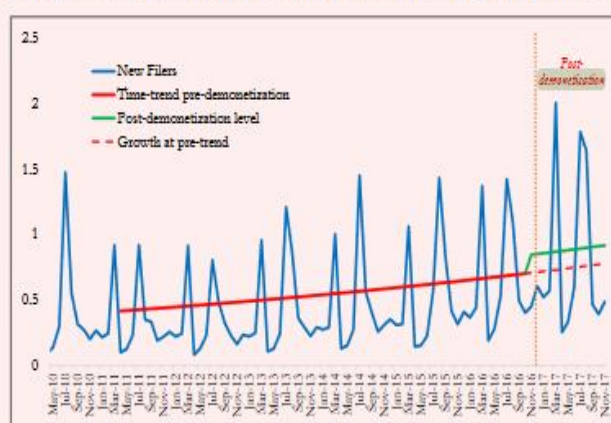
4. Rise in number of tax payers and tax collection

Post demonetisation direct tax base roused from Average in November 2010-16 of 6.2 million to 10.1 million in November 2016-17. As per the trend shown in figure below every year there is 0.8% monthly increase in tax payers but November 2017 had 31% increase in new filers.

Figure 1. New Tax Filers (in millions)



Figure 2. Monthly New Tax Filers (in millions)



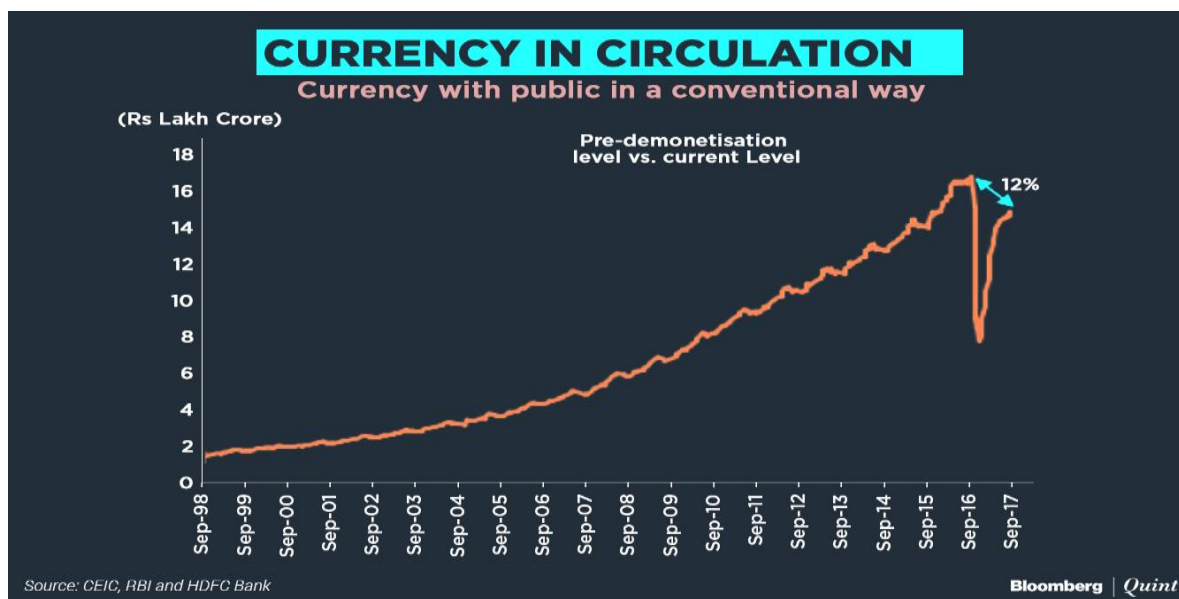
Source : Department of Revenue (CBDT), Survey calculations.

Figure 2: Increase in Tax base post demonetisation

1. Unaccounted wealth now accounted: Unaccounted income in cash was brought into banking system post demonetisation. Also, there was 38% increase in undisclosed income post demonetisation
2. Terrorist Financing: Government claims that demonetisation helped in crippling terrorist financing. Finance Minister Arun Jaitley in his interview stated that terrorist are finding difficult to conduct terrorist activities post demonetisation. He added that the 5,000 to 10,000 stone throwers funded by terrorist in Jammu & Kashmir and Chhattisgarh are no where to be found 8 to 10 months post demonetisation.

Negative impact of demonetization

1. **Black & money corruption:** Around 99% currency returned in circulation. Demonetisation was mainly aimed to wipe out black money. 15.41 lakh crore worth of notes were demonetised out of which 15.31 lakh crore were reintroduced in the economy.

**Figure 3: currency in circulation post demonetization**

2. **Fake note circulations:** Demonetisation was taken as a step to deal with counterfeit notes in circulation. During demonetisation 7,62,072 counterfeit notes were detected in year 2016-17. Government stated that the new notes of 500 and 2000 are difficult to be imitated. But as per annual report of RBI during FY 2016-17 and 2017-18 total of 18,567 counterfeit notes of Rs. 2000 and 10,091 counterfeit notes of Rs. 500 were detected.

Table 1: Denomination-wise Counterfeit Notes Detected in the Banking System

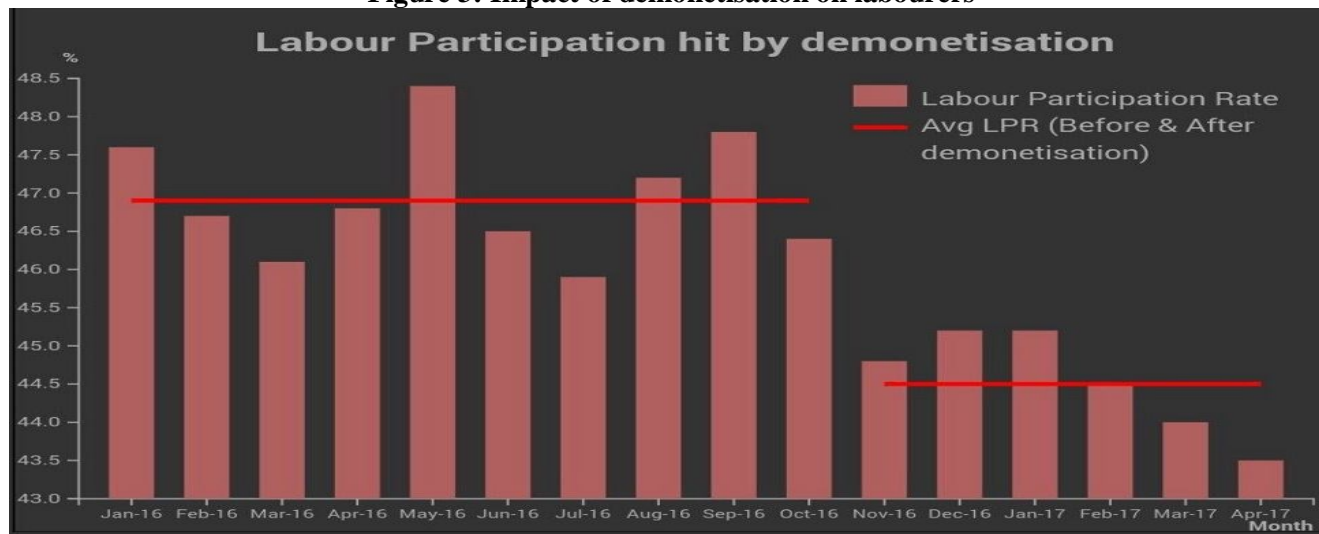
(No. of pieces)			
Denomination (₹)	2015-16	2016-17	2017-18
2 and 5	2	80	1
10	134	523	287
20	96	324	437
50	6,453	9,222	23,447
100	221,447	177,195	239,182
200	-	-	79
500 (MG series)	261,695	317,567	127,918
500 (New design)	-	199	9,892
1,000	143,099	256,324	103,611
2,000	-	638	17,929
Total	632,926	762,072	522,783

Source: <https://rbi.org.in/Scripts/AnnualReportPublications.aspx?Id=1235>

GDP: Demonetisation led to decline in growth of GDP. GDP of India fell from 8.01 in 2015-16 to 7.11 in 2016-17.

Loss of job: Employees in unorganised sectors who used to work on daily wages lost their job to demonetisation. Around 1.5 million people lost their life post demonetisation.

Figure 3: Impact of demonetisation on labourers



Source: <https://medium.com/@tamizhsudhakar/facts-speak-economy-current-state-of-indian-economy-part-2-8e167df57df>

- Impact on small and medium size enterprises:** Many small and medium sized enterprises were shut down due to liquidity crunch caused by demonetisation.
- Inconvenience to public:** Common man had to wait in queue for getting their notes replaced. Around 100 people lost their life. Farmers and labourers were severely hit by demonetisation.
- Cost of demonetisation to government:** The cost to print demonetised notes double from Rs. 3,421 crores in year 2015-16 to Rs. 7,965 crores in year 2016-17. The additional burden of printing cost resulted in lesser returns to the government from RBI

CONCLUSION

Demonetisation miserably failed to fulfil its main objective of curbing black money and corruption. Although demonetisation had some positive aspects like paving India's way to cashless economy, accounting for benami transactions, crippling terrorist financing but the negative impact of demonetisation weighs far more than the positive. Hundreds of people lost their life, Millions of people lost their jobs, SME's were critically hit, GDP fell, counterfeit notes are back in circulation. Government should have taken into account prior consequences of demonetisation and proper planning for the same should have been done before implementing demonetisation.

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DEMONETIZATION**Sadhana Maurya**Gurunanak College of Education and Research, Bhandup (w)

MEANING

The withdrawal of a coin, note, or precious metal from use as legal tender.

INTRODUCTION

On 8 November 2016, the Government of India announced the demonetization of all ₹500 and ₹1000 banknotes of the Mahatma Gandhi Series. It also announced the issuance of new ₹500 and ₹2000 banknotes in exchange for the demonetized banknotes.

PURPOSE

1. Tax compliant society
2. Corruption
3. Black money
4. Fake currency
5. removal of a specific denomination because it is no longer in wide use.
6. Removal of a denomination because the Govt/ central bank no longer wishes to have that denomination to be in circulation
7. Change in design of the currency
8. Remove specific currency from circulation totally (i.e. 500, 1000 RS notes)

CAUSES OF DEMONETIZATION

1. Since 2009, the currency to GDP ratio in India had gradually increased from 1 : 9 to 1 : 12 which is not a good sign for long term health of the economy. By demonetizing 85% value currency notes government got an opportunity to correct it.
2. 97% of the transactions in India were effected in cash, i.e. were not getting routed through any bank. Huge cash hoarding shrinks bank deposits and lending capacity of the commercial banks which leads to higher interest rates.
3. A few businesses like land dealers, real estate dealers, promoters and builders, goldsmith, jewellers, foreign currency dealers, private money lenders generally hold huge amounts of unaccounted money in form of currency notes. Such money had created a parallel economy in India. Such money has become void or have reached bank accounts through direct or indirect channels.
4. More and more cash-less or less-cash transactions will lead to routing of consideration in bank thereby the more and more income will get disclosed and declared which will increase the direct tax collections.
5. Number of income tax payers will increase,
6. Pockets and persons where black money gets generated can be identified.
7. As the share of direct tax collections increase government will be in a better position to rationalize the indirect taxes which will create social justice.
8. The fake currency notes circulating in the economy required a surgical attack. Demonetization has converted those fake currency notes in pieces of papers.
9. **SAVINGS:** Global agencies have pegged the size of the parallel economy in India at close to 23% as of 2007. Basis this, we estimate unaccounted cash in the economy to the tune of ₹4500 billion, of which a certain significant proportion will make its way to the banks, thus boosting deposit base as well as financial savings:
 - The banks' deposit base is expected to receive a fillip of 0.5-1.4% of GDP.
 - In turn, financing savings can be expected to rise by close to this proportion due to switch from savings from unproductive physical assets to financial assets.

IMPROVE MONETARY TRANSMISSION AND REDUCE LENDING RATES

- A rise in deposit base will allow banks to lower the blended cost of funds as higher CASA (current accounts, savings accounts) deposits help to replace the high cost of borrowing and lower overall cost of funds. We expect banks to reduce deposit rates by ~125 bps over the next six months.
- The new regime of MCLR (Marginal Cost of Funds based Lending Rate) will immediately take into account the lower cost and will thereby lead to a decline in lending rates, which will boost economic activity in the medium term.

CREATE ROOM FOR FURTHER MONETARY ACCOMMODATION

- With improved monetary transmission, economic efficiency and structural moderation in currency in circulation, there is likely to be a greater room for the RBI to ease monetary policy rate further. I am hopeful that the RBI will ease by another 100 bps in 2017-18 to a repo rate of 4% by March 2018.
- The piecemeal liquidity support from OMO purchases will now to a larger extent be addressed by the structural change in currency demand

SUPPORT GOVERNMENT FINANCES

- With some part of unaccounted money making way into the formal channel, the government stands to benefit from higher income tax collections. This should help cushion the government's FY17 fiscal deficit target, especially post the shortfall in anticipated spectrum revenues.
- The latest move will move the economy from the unorganized to organized sector, dovetailing into the GST architecture that is expected to come on board next year. This is likely to enhance the government's ability to tax commercial transactions resulting in a structural improvement in tax to GDP ratio in the economy.

IMPACTS**POSITIVE**

1. Black money : It is estimated that in India, the total amount of black money is Rs. 3 lakh crore. It is huge if we see that the total money in circulation is only Rs.17 lakh crore.
2. Fake currency : According to the ISI (Indian Statistical Institute), the circulation of the total amount of fake currency in India is Rs.400 crore at any given point of time. It is also estimated that around Rs 70 crore fake currencies are being injected into India every year.
3. Bank deposit : RBI had declared Bank had received Rs 5.12 trillion worth of deposits until 18th November. This deposit of money can boost Indian GDP by 0.5 to 1.5 percent.
4. Lending rates: The extent of black money circulation in the sector is huge. According to report at least 40 percent of real estate
5. Kashmir unrest : The four-month long turbulence in Kashmir has come to the rest because of the lack of monetary supply.
6. Bond market - Governmental finance : This raised amount from income tax will help the government to reduce the fiscal deficit in the fiscal year 2017.
7. Cash less economy
8. GDP growth
9. Black marketing
10. Hawala

NEGATIVE

1. 150+ people died
2. 4,00,000 people got unemployed
3. Disruption of demand and supply
4. GDP growth (year-on-year) fell from seven per cent in Q3FY17 to 6.1 per cent in Q4FY17 and further declined to 5.7 per cent in Q1FY18, the slowest pace of growth in five years.

-
5. The fact that 99 per cent of the bank notes have found their way back to the RBI (Reserve Bank of India) seems to suggest that demonetization was not very effective in rooting out black money and reducing the informal sector," Rookmaaker said.

DEMONETIZATION COST FOR RBI

1. When demonetization was announced, the RBI and the currency printing presses were unprepared to replace the volume of the recalled currency notes. The currency printing machinery had to run overtime to meet the targets.
2. The RBI spent close to Rs 13,000 crore over the next two years to remonetise Indian money market in post-demonetisation phase. New notes of Rs 500 and Rs 2,000 were introduced. The designs were markedly different from the recalled ones. This escalated the cost of printing as it had several new features.
3. The RBI report says that Rs 7,965 crore was spent in 2016-17 on printing new notes both old and new denominations. In 2017-18, the amount spent on printing notes stood at Rs 4,912 crore. The money spent on the printing of notes in post-demonetization was very high. The RBI had spent Rs 3,421 crore on printing currency notes a year ago, that is, in 2015-16 (July to June cycle).
4. Such high spending on note printing impacted the profit of the RBI which reflected in the dividend that it paid to the government. The RBI had transferred a surplus of Rs 65,876 crore to the government in 2015-16.
5. Such high spending on note printing impacted the profit of the RBI which reflected in the dividend that it paid to the government. The RBI had transferred a surplus of Rs 65,876 crore to the government in 2015-16.
6. But when the amount of dividend declined by more than half in 2016-17 when demonetization was implemented. The RBI paid a dividend of Rs 30,659 crore. It went up again in 2017-18 but did not touch the mark of 2015-16. The RBI paid Rs 50,000 crore as dividend to the government earlier this month. Demonetization appears to be the spoiler-in-chief for the RBI's profit.
7. Such high spending on note printing impacted the profit of the RBI which reflected in the dividend that it paid to the government. The RBI had transferred a surplus of Rs 65,876 crore to the government in 2015-16.

ISSUES AND CHALLENGES FOR APPLICATION OF DIGITALIZATION IN RURAL BANKING

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ABSTRACT

'Digitalization is the submissive concept in the today's modern world which is dominating all the sectors of the economy. With an objective to transform India a digital economy the government had announced Digital India Programme. The major role is played by the concept of digitalization in Banking sector as well. Digitalization has become crucial for Indian Banking sector, which plays high role in furthering financial inclusion and which is mainly concerned with providing better services to customers along with an opportunity to gain more in near future. Indian banking sector is achieving terrific growth in recent years, encouraging considerably higher amount of capital formation, which is because of digitalization of banking sectors. Even though Indian banking sector is moving towards digitalization, there are various challenges and issues to be considered, specially in rural banking. This conceptual research paper is an activity made to analyze the issues and challenges in the area of Digitalization of Rural Banking and to gain a new perspective in this area.

Keywords: Digitalization, rural banking, India, growth, challenges

I. INTRODUCTION

Digitalization is growing in today's world; banking sector is included to it. It has become integral part of our life, without which we feel world is nothing. In the fast growing world digitalization is playing a spectacular role. Nearly all the sectors of the economy depends on digitalization for their growth and expansion and the same with the banking sector. The countries which are easily adjusting to it are performing immensely well compared to those countries which are lacking behind in accepting digitalization.

The banking sector which is known as the sector of improvement of all other sectors, because of the financial aid it provides for other sectors and thereby promoting capital formation. Although the India is one of the fastest developing countries in the world, it is lagging behind in the execution of digitalization to banking sector. It is true that digitalization of banking will bring revolution in the country's economy; there is a need to take some essential steps in digitalizing rural banking. Though the number of people with bank accounts grew from 53% in 2014 to 80% in 2017 -- India has the second largest population unbanked. Eventually 19% population remains unbanked even after the implementation of Jan Dhan Yojna by the central government according to the study conducted jointly by The Associated Chambers of Commerce & Industry of India and Ernst and young India (ASSOCHAM-EY) report 24th July 2017. Digitalization has an important role in providing efficiently good services to those areas which are not included in finance. This paper bring up the various issues and challenges in applying digitalization in rural banking.

II. OBJECTIVES

- To study the issues and challenges emerging in adaptation of digitalization in Indian Rural Banking Sector
- To analyze the factors influencing the Digitalization of rural banking- such as Communication networks, education, occupation, income, gender, socio-economic status
- To suggest alternatives to overcome the challenges

III. SCOPE

The study covers the technological developments in Indian rural banking sector only.

IV. METHODOLOGY

The study is descriptive in nature and is based on secondary data. The data are collected from various reports, journals, news articles, various bank portals, and internet sources.

V. SIGNIFICANCES OF DIGITALIZATION OF RURAL BANKING

Digitalization of rural banking is very facilitative in financial inclusion and helps the economy to grow up quicker along with the development of all other sectors. Some of the significances of digitalizing rural banking are-

- i. **Reduces inefficiency:** digitalization of banking increases the efficiency in banking sector and provide smoother transactions.

ii. Time saving: digitalization will reduce the time of transaction and thereby boost easy flow of funds compared to conventional banking.

iii. Huge coverage: digitalization of banking reaches large number of people and has wide coverage.

iv. Better quality: Digitalization will better the quality of service of the banking sector compared to traditional banking.

v. Reduce human error: Digitalization of banking maintains correct records of transactions and thereby reduces the chance of human error.

vi. Eco-friendly: As digitalization of banking reduce the use papers which will result in reduce cutting of trees and help in saving of environment.

vii. Increase in Investment: Digitalization of banking help to quick and easy access to various banking services from anywhere and thereby brings more investment activities in the country.

viii. Cost efficient: Digitalization of banking decrease the cost of printing currency notes as there is no usage of hard cash and less cost in maintaining paper records if it is available online.

VI. DIGITAL BANKING SERVICES

Digital Banking—a new concept in the area of electronic banking, which aims to improve standard online and mobile banking services by integration digital technologies, for example strategic analyzing tools, social media interactions, modern payment solutions, mobile technology and a focus on user experience.

Embracing a fully digital strategy requires end to-end modernisation of a bank's often outdated infrastructure. Equally important, it requires a transition from an account-based view of banking customers to one that knows them as individuals and enhances the customer experience with relevant, convenient and personalized products and services.

Digital Banking is the application of technology to ensure seamless end-to-end (STP in the 'old' jargon) processing of banking transactions/ operations; initiated by the client, assuring maximum utility to the client in terms of availability, usefulness and cost; to the bank in terms of reduced operating costs, zero errors and increased services.

There are various digital banking services which are provided by the banks to its customers some of them are-National Electronic Fund Transfer, Real Time Gross Settlement, Debit and Credit Cards, Mobile Banking, Inter Bank Mobile Payment System etc., Implementing these services in rural areas of India are not that easy from banks perspective as there are various issues and challenges needed to be addressed.

VII. ISSUES AND CHALLENGES IN DIGITALIZATION OF RURAL BANKING

There are various issues and challenges in the implementation of digitalization to rural banking, they are:-

i. The literacy rate is low in rural India: It is obvious that usance of digital banking services needs the education. According to the Survey report 29% of rural population lack literacy, which is the greatest challenge in implementing of digitalization to rural banking. The details are part of a survey on 'Social Consumption: Education' during the National Sample Survey (NSS) 71st Round, January to June 2014, conducted by the National Sample Survey Office (NSSO) under the Ministry of Statistics and Programme Implementation.

ii. Improper infrastructural facilities: Digitalization of rural banking needs the availability of Infrastructural facilities, instance we are considering mainly the Electricity and communication networks. Nearly 96% villages in India are electrified but only 69% of homes have electricity connections, according to the World Bank report.

iii. Fewer number of people using smart phones: There has been sizable growth in the users of smartphone in rural India in last few years. But not many are conscious and confident about online banking through smartphones which is the big difficulty in application of digitalization of rural banking.

iv. Less banking habits among rural people: maximum people in rural area do not have accession to banking because of the lack of banking awareness and lack of financial knowledge.

v. Network coverage in rural areas: there is a problem of communication networks because of which there is few digital payments in rural areas which requires to be addressed.

vi. Need of financial knowledge: the financial literacy among rural people is very low, because of which people are unaware of different types of doing payments

vii. Cash habitual economy: rural India highly depends on cash rather than digital cash to meet their daily need as the transaction is done primarily with use of cash or barter form.

viii. Number of transaction: the number of transaction in rural area is very less because of fewer demand for the goods and low level of income.

ix. Customer refusal to new technology: the rural people do not change so easily in the case for adopting new technology, as lack of knowledge and awareness on use of digital banking services.

x. Cost of financial services: the cost of providing financial service is too high in rural area because of lack of infrastructural facilities and less number of transaction in rural area.

VIII. DISCUSSION

This paper covers particularly on the application of digital banking in rural India and various issues and challenges needs to be faced in implementing. This paper also focus on the importance of use of digital banking services in rural area and thereby contribution to the development of the country. Demonetization which happened on 8th November 2016 is the best incidence of importance of digitalization in banking sector specifically in rural India which is highly dependent on cash for the different various kinds of transactions. It is obvious from the developed countries that digitalization plays a dominating role in the growth and development of a country. Digitalization of banking is very significant for the growth and enhancement of economy of the country and for financial inclusion. Capital formation rely mainly on the savings of the people and investment activities. Due to lack of knowledge and awareness in rural people on the digital banking services and due to improper facilities for the use of digital banking services the saving rate is low and because of fewer saving habits the investment activity also diminished which is also one of the reason for the backwardness of rural India.

IX. Overcome the challenges

This conceptual paper will be useful for banking sector in taking necessary measures like creating knowingness among people on significance of digital banking services, increasing financial literate through various modes of developing awareness among the rural people. It is also helpful for government in taking necessary measures for application of digitalization to rural banking like providing proper infrastructural facilities specially, building communication networks along with electrification of rural area, which is the main supporter of success for applying digitalization to rural banking in India.

As the maximum of the rural people are not literate in case of handling and use of tools like basic internet or computer programs, so it is hard to teach and make them understand. So there is more need of creating knowingness among the students who are the future of rural India. The banking sector must stretch out to the schools and colleges where the students can understand it easily and transmit it to their family members like making payment of electricity bills, transferring funds and different kinds of online payments and thereby helpful in applying the digitalization to rural banking.

X. CONCLUSION

With the application of digitalization to rural banking we can reduce the gap between rural and urban area as it encourages higher level of investment activities. Digitalization helps in keeping the records of transactions which can be easily enter and retrieved by the customer and banker. It is also useful for the government in applying various plans and reaching out to the people, the best example for this is DBT(Direct Benefit Transfer) through bank accounts, which decreases the outflow of government funds. Digitalization is useful in taking India to corruption free country in the globe and also help in anti-money laundering and proper collection of taxes.

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FUTURE IN ARTIFICIAL INTELLIGENCE

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INTRODUCTION DEFINITION OF ARTIFICIAL INTELLIGENCE

Artificial Intelligence is a term, which consists of two words.

- **Artificial**

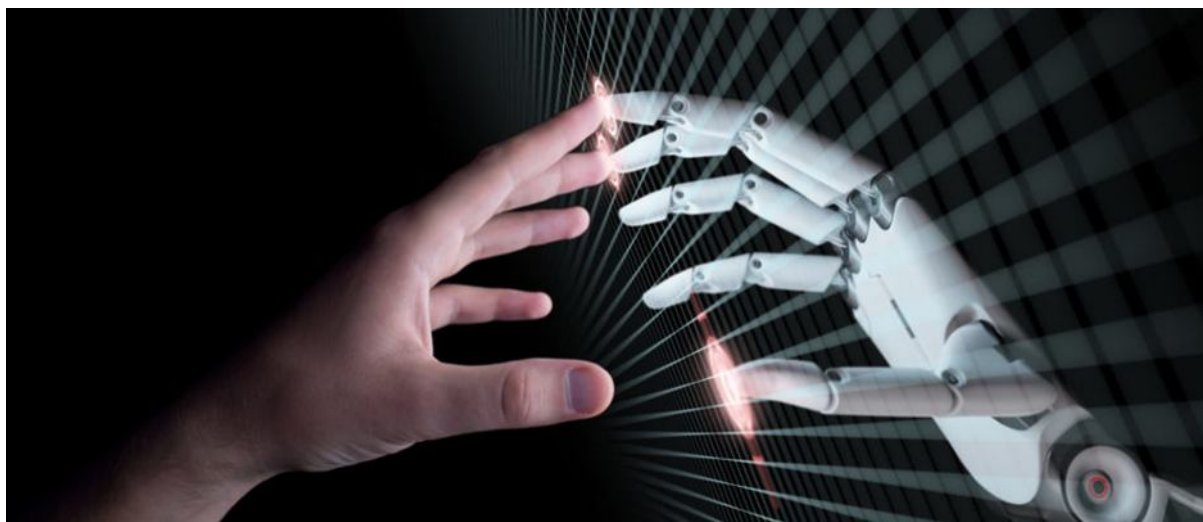
Artificial is something that is not real, and which is kind of fake because it is simulated. The simplest thing what I can think of which is artificial is artificial grass. It is used to substitute real grass for various reason. Artificial grass is often used for sports, because it is more resistant and therefore can be used longer than real grass. It is also easier to care than real grass.

- **Intelligence**

Intelligence is a very complex term. It can be defined in many ways like logic, understanding, self-awareness, learning, emotional knowledge, planning, judgement to solve problems and adapt to new situations. The ability described above when exhibited by machines is called as Artificial Intelligence (AI). It is intelligence exhibited by machines.

Artificial Intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Some of the activities computers with artificial intelligence are designed for include:

- Speech recognition
- Learning
- Planning
- Problem solving



Source: Information Age – Topic: AI & Machine Learning by Nick Ismail

What is Artificial intelligence

AI is a form of computer science used to create intelligent machines that can recognize human speech, objects, can learn, plan and solve problems like humans. It is based primarily on how it interacts with humans and how we can compare it to humans like speech recognition, object detection, solve problem and learn from the given data, plan and approach for the future task to be done etc.

History of Artificial Intelligence (AI)

The word Artificial Intelligence was coined by John McCarthy in 1956 at the first artificial intelligence conference.

- Further in 1969, Shakey was the first general purpose mobile robot built it worked as per instructions like on and off lights, moving boxes from one place to another.

- Then in 1997, supercomputer 'Deep Blue' was designed which defeated the world chess champion in the game, this was the first time when computers used logic like human being this was a large milestone in this field.
- Further in 2002, the first commercially successful robotic vacuum cleaner.
- In 2005 to 2019 today in the last more than decade we have speech recognition, RPA (Robotic process automation), dancing robots, smart homes, Siri and many more to come from AI.

The Original 7 aspects of A.I. in 1956

1. Simulating higher functions of the human brain.
2. Programming a computer to use general language.
3. Arranging hypothetical neurons in a manner so that they can form concepts.
4. A way to determine and measure problem complexity.
5. Self-improvement.
6. Abstraction: Defined as a quality of dealing with ideas rather than events.
7. Randomness and creativity.

Types of Artificial intelligence

1. Purely reactive: Does not have any past memory or data, takes actions reacts based on what he sees for example, observes a chess game the moves in it, and applies or takes the best possible decision and wins the game. These are purely reactive machines specialized in one field of work only like here in chess it calculated the steps and took decisions accordingly, they don't have a lot data they just react to what is in front of them.
2. Limited memory: These machines keeps previous data and keeps adding new data to their memory, for example if we ask to suggest a good restaurant for dinner, so it looks back to the past where you have visited quite often and suggest as the often-visited location. It has enough memory and experience to take proper decisions, but it has a very limited memory.
3. Theory of mind: this kind of an AI has the capacity to understand thoughts and emotions and interact socially, a machine based on this type is yet to be built. Theory of mind a thing of future.
4. Self-awareness: future generations of machines, they would be super intelligent, conscious etc. like vision in avengers or the terminator.

Applications of A.I.

1. Banking Fraud detection: from a large data consisting of fraudulent or non-fraudulent transactions, the AI learns to predict if a new transaction is fraud or not.
2. Online customer support: most of such support systems are connected or automated by AI.
3. Cyber security: with the use of lot of sample data AI can be used to detect anomalies, adapt and respond to threats.
4. Virtual Assistants: Siri, Alexa, Google, Netflix etc. now use voice recognition to follow the user's command. Its like having a private secretary.
5. Medical Diagnosis: in cancer research, predicting the chances of an individual getting ill by a disease.

Most popular examples of Artificial Intelligence used today**• Siri**

Everyone is familiar with Apple's personal assistant, Siri. She's the friendly voice-activated computer that we interact with on a daily basis. She uses machine-learning technology to get smarter and better able to predict and understand our natural-language questions and requests.

• Alexa

When Amazon first introduced Alexa, it took much of the world by storm. However, its usefulness help us scour the web for information, shop, schedule appointments, set alarms and a million other things.

- **Tesla**

It is one of the best cars ever made. Main feature is its predictive capabilities, self-driving features and sheer technological "coolness." Anyone that's into technology and cars needs to own a Tesla.

- **Amazon.com**

With its algorithms refined more and more with each passing year, the company has gotten acutely smart at predicting just what we're interested in purchasing based on our online behavior. While Amazon plans to ship products to us before we even know we need them, it hasn't quite gotten there yet. But it's most certainly on its horizons.

- **Netflix**

Netflix provides highly accurate predictive technology based on customer's reactions to films. It analyzes billions of records to suggest films that you might like based on your previous reactions and choices of films. This tech is getting smarter and smarter by the year as the dataset grows. However, the tech's only drawback is that most small-labeled movies go unnoticed while big-named movies grow and balloon on the platform.

Roles For Artificial Intelligence In Education

1. Automate basic Activities

Artificial intelligence can automate basic activities in education, like grading, homework and tests can be tedious work, Teachers often find that grading takes up a significant amount of time, time that could be used to interact with students, prepare for class, or work on professional development.

While AI may not ever be able to truly replace human grading, it's getting pretty close. It's now possible to automate grading for nearly all kinds of multiple choice, fill-in-the-blank testing and automated grading of student writing may not be far behind.

2. Educational software can be adapted to student needs

From kindergarten to graduate school, one of the key ways artificial intelligence will impact education is through the application of greater levels of individualized learning. These systems respond to the needs of the student, putting greater emphasis on certain topics, repeating things that students haven't mastered, and generally helping students to work at their own pace, whatever that may be.

3. It can point out places where courses need to improve

Teachers may not always be aware of gaps in their lectures and educational materials that can leave students confused about certain concepts. Artificial intelligence offers a way to solve that problem. Online course helps to fill in the gaps in explanation that can occur in courses and helps to ensure that all students are building the same conceptual foundation. Rather than waiting to hear back from the professor, students get immediate feedback that helps them to understand a concept and remember how to do it correctly the next time around.

4. Students could get additional support from AI tutors

While there are obviously things that human tutors can offer that machines can't, at least not yet, the future could see more students being tutored by tutors that only exist in zeros and ones. Some tutoring programs based on artificial intelligence already exist and can help students through basic mathematics, writing, and other subjects. AI can not only help teachers and students to craft courses that are customized to their needs, but it can also provide feedback to both about the success of the course.

5. It could change the role of teachers

There will always be a role for teachers in education, but what that role is and what it entails may change due to new technology in the form of intelligent computing systems. As we've already discussed, AI can take over tasks like grading, can help students improve learning, and may even be a substitute for real-world tutoring. Yet AI could be adapted to many other aspects of teaching as well. AI systems could be programmed to provide expertise, serving as a place for students to ask questions and find information or could even potentially take the place of teachers for very basic course materials.

6. Data powered by AI can change how schools find, teach, and support students

Smart data gathering, powered by intelligent computer systems, is already making changes to how colleges interact with prospective and current students. From recruiting to helping students choose the best courses, intelligent computer systems are helping make every part of the college experience more closely tailored to student needs and goals.

Goals of Artificial Intelligence

The general problem of simulating (or creating) intelligence has been broken down into several specific sub-problems. These consist of particular traits or capabilities that researchers would like an intelligent system to display. The traits described below have received the most attention.

1. Knowledge representation

Knowledge representation and knowledge engineering are central to AI research. Among the things that AI needs to represent are: objects, properties, categories and relations between objects; situations, events, states and time; causes and effects; knowledge about what we know about what other people know and many other.

2. Planning

Intelligent agents must be able to set goals and achieve them. They need a way to visualize the future and be able to make choices that maximize the utility (or "value") of the available choices. However, if the agent is not the only actor, it must periodically ascertain whether the world matches its predictions and it must change its plan as this becomes necessary, requiring the agent to reason under uncertainty.

3. Natural language processing

Natural language processing gives machines the ability to read and understand the languages that humans speak. A sufficiently powerful natural language processing system would enable natural language user interfaces and the acquisition of knowledge directly from human-written sources, such as Internet texts.

4. Motion and manipulation

The field of robotics is closely related to AI. Intelligence is required for robots to be able to handle such tasks as object manipulation and navigation, with sub-problems of localization (knowing where you are, or finding out where other things are), mapping (learning what is around you, building a map of the environment), and motion planning (figuring out how to get there) or path planning (going from one point in space to another point, which may involve compliant motion - where the robot moves while maintaining physical contact with an object).

5. Social intelligence

Affective computing is the study and development of systems and devices that can recognize, interpret, process, and simulate human affects. The machine should interpret the emotional state of humans and adapt its behavior to them, giving an appropriate response for those emotions. Emotion and social skills play two roles for an intelligent agent. First, it must be able to predict the actions of others, by understanding their motives and emotional states.

6. General intelligence

Most researchers think that their work will eventually be incorporated into a machine with general intelligence (known as strong AI), combining all the skills above and exceeding human abilities at most or all of them. A few believe that anthropomorphic features like artificial consciousness or an artificial brain may be required for such a project.

Future of Artificial Intelligence

- In the next 10 years technologies in narrow fields such as speech recognition will continue to improve and will reach human levels. AI is all around us. It can be found in vacuum cleaners, cars, lawnmowers, video games, Hollywood special effects, e-commerce software, medical research and international finance markets.
- As per professor Moshe Vardi of Rice University, most jobs will be done by robots within 30 years, he futhur says that robots are definitely going to take your job.
- The development of meaningful artificial intelligence will require that machines acquire some variant of human consciousness.
- AI community believes developing artificial intelligence to human level is a dangerous thing to do. Stephen Hawking explained in an AMA on Reddit. "A super-intelligent AI will be extremely good at accomplishing its goals," he said, "and if those goals aren't aligned with ours, we're in trouble."
- AI can be used to solve an array of problems associated with our current environment. With increasing processing power, AI, in conjunction with data science and other technologies, can possibly solve issues such as climate change, natural calamities prediction, and so on.

- AI will take over many dangerous or hazardous jobs in the future. AI doesn't understand pain and can be reassembled if destroyed. This opens a lot of possibilities including scenarios such as bomb defusing. They can also be equally useful in chemical factories or factories where workers must work in harsh conditions.
- The early years of the 21st century should see dramatic strides forward in this area, however, the field of artificial consciousness remains in its infancy.

CONCLUSION OF ARTIFICIAL INTELLIGENCE

I conclude that if the machine could successfully pretend to be human to a knowledgeable observer then you certainly should consider it intelligent. AI systems are now in routine use in various field such as economics, medicine, engineering and the military, as well as being built into many common home computer software applications, traditional strategy games etc. AI is an exciting and rewarding discipline. AI is branch of computer science that is concerned with the automation of intelligent behavior. The revised definition of AI is - AI is the study of mechanisms underlying intelligent behavior through the construction and evaluation of artifacts that attempt to enact those mechanisms. So it is concluded that it work as an artificial human brain which have an unbelievable artificial thinking power.

Artificial intelligence will amplify human effectiveness but also threaten human autonomy, agency and capabilities. Some possibilities like computers might match or even exceed human intelligence and capabilities on tasks such as complex decision-making, reasoning and learning, sophisticated analytics and pattern recognition, visual insight, speech recognition and language translation. "Smart" systems in communities, in vehicles, in buildings and utilities, on farms and in business processes will save time, money and lives and offer opportunities for individuals to enjoy a more-customized future.

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EMPLOYEE EMPOWERMENT AND ITS EFFECT ON ORGANIZATIONAL PERFORMANCE

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ABSTRACT

Employee empowerment is frequently used by business academicians and managers on business activities. It refers to employees being more proactive and self-sufficient in assisting an organization to achieve its goals. The term became prominent as part of the total quality management, although its roots are in issues raised earlier under the heading employee involvement or employee participation. The purpose is not only to ensure that effective decisions are made by the right employees but to provide a mechanism by which responsibility for those decisions is vested in individuals and teams. The right to share authority and to codetermine important decisions is accompanied by responsibility to exercise this power for the legitimate benefit of multiple stakeholders. Responsible decision-making requires that employees have access to managerial level knowledge and information about the enterprise, as well as to opportunities to learn new skills that will enable them to interpret and use the information. Such information may however involve technical, economic, or interpersonal and organizational aspects of the firm that many employees will be unprepared by their previous education, training, and work experience to understand and make use of. A democratic workplace will need to provide for the ongoing education and training to employees not only in relation to their immediate work tasks but also for their broader role in participating in all the works of management.

Keywords: Employee Empowerment, Organizational Performance.

INTRODUCTION

Employee Empowerment, employee participative management is a classic concept in business administration. Empowerment, although generally seen as a key to employee satisfaction and improved productivity, opponents regard it merely as an action toward downsizing a company and increasing employees workloads. The Empowerment concept has emerged as a development of the total quality management philosophy in recent years. Common ground has been established as to the acceptance that empowerment is one of the more difficult factors of continuous improvement, but should not also be understood as a cure to all contemporary corporate ills. Empowerment yet, has no any metric to assess its impact on business performance and this condition caused the concept to remain fundamentally qualitative rather than quantitative.

EMPOWERMENT AND ITS RELATION TO DECISION MAKING PROCESS

In our study we see participative management, empowerment and participation as synonyms. We consider empowerment as the new version of participative management of 1970's. On the other hand, concepts of involvement and commitment are elements included in empowerment. Empowerment is achieved through involvement and commitment of employees. Without involvement of employees in the decision-making process, the base of decisions will not be properly maintained, and thereby the members of organization cannot be accountable for the quality of their tasks. Members of the organizations should always think strategically and by employing employees in decision making activities, human resources of the business should be directed towards the satisfaction of customers, better than before.

In essence, empowerment is a management style where managers share endeavors with the rest of the organizational members. Their influence in the decision-making process or the collaboration in the decision making is not limited to the formal power with certain characteristics as far as information systems, training, rewarding, power sharing, leadership style and organizational culture are concerned. Participation of employees in the decisions is not a simple act. Decision process is composed of a couple of stages, like a chain where each link can be regarded as equally valuable and essential. These stages mainly are identification of the problem, intelligence stage, conception or design of alternatives stage, choosing one of the alternatives as decision, implementation and revision of the decision. All of these stages need to be elaborated properly and at each level of hierarchy, managers should continuously perform influence and collaboration. There are a variety of decisions in every organization. Therefore it is better to classify decisions in three fold in a pyramidal way, as a best known and generally accepted classification. Of a hierarchical division of decisions, at top strategic, then tactical and at the bottom operational decisions take place. Such classification also will be helpful in identifying the collaboration degree of the individuals in the decision making process.

THE IMPLEMENTATION CONDITIONS OF EMPOWERMENT

According to Herrenkohl (Herrenkohl, Judson and Heffner, 1999) and Wooddell (2009), effective implementation of employee empowerment projects in the organization needs maintaining the following four conditions.

Shared Vision

As his top strategic priorities, like financial solvency, improved reporting process, increasing the level of customer satisfaction of the company, for example, might be the vision of the director of the organization. Thus, unless the same vision is shared with the director, it would be very difficult, even sometimes impossible to implement an employee empowerment project. Shared vision with the director plays a key role and the empowerment endeavors can obtain ground and can identify its own goals and then can design its own process to achieve its goals. Starting with the lacking of empowerment areas, the department or the company would provide the empowerment team with the opportunity to train selected employees to improve their leadership skills.

Organizational Support

Without a concrete support of the director, securing attendance of the supervisors and managers to training workshops would be almost impossible. Beside this, to plan for access to staff meetings would not be expected to be successful. Therefore executive director has a critical effect and role on the successfully implementation of the empowerment project in the organization.

Knowledge and Learning

After the implementation of the empowerment project, the members of the team are expected to improve their skills in project management and team development skills which would be an asset applicable for other projects as well. And also skills like, brainstorming, time management, improved discussion, consensus-based decision making and problem solving techniques for managers and supervisors, and leadership development training and customer service training for employees could be maintained.

Institutional Recognition

For a successful implementation of an empowerment project, team members need to receive a widespread appreciation and recognition for their skills in their endeavors. Therefore good reputation of an empowerment team and its members, could directly impact span of acceptance of the director and department managers, supervisors and front line employees.

Empowerment And Its Effect On Performance

Organizations need to manage and improve the performance of their employees. As the power or capacity to produce a desired effect, efficacy of an employee is enhanced by empowerment, doubtlessly. Empowerment can be formulated as the combination of four dimensions. Thus, the equation is derived keeping in mind the factor of empowerment enhancing the role efficacy of individual employees. Some argue that lacking of one of these elements will deflate, though not completely eliminate, the overall degree of empowerment, but still others believe that, any one of four elements, that is power, information, knowledge and rewards will completely destroy empowerment. Thus, employees provided with the elements of power, knowledge, information and rewards would be more involved and empowered in all levels of business development programs. Basing on above explanations, empowerment equation could be formed as the following:

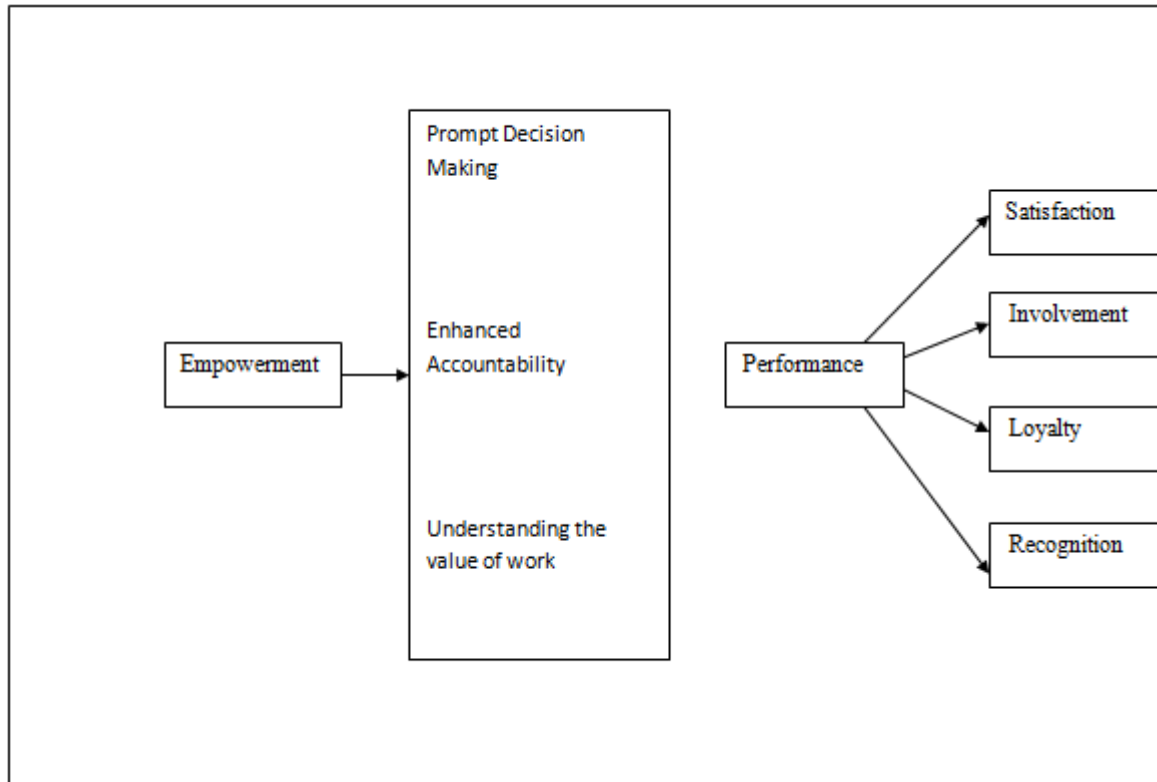
$$\text{Empowerment} = \text{Power} * \text{information} * \text{Knowledge} * \text{Rewards}$$

Power	Information	Knowledge	Reward
Autonomy	HRI (Feedback)	Training (mentoring and Tutor)	Compensation (awards)
Authority	Role Clarification	Counseling	Career Planning
Delegation	Motivation Participation (Work Suggest)	Appraisals	Job Enrichment

It is now widely recognized that decisions concentrated at the top hampers flexibility and timely action at the lower levels, but pushing down decision making at lower levels, may lead to conflict decisions and lack of common purpose. Therefore to avoid such disadvantages, the decision of taking decisions, or to push it upwards should be left at employee's prudence. To develop the prudence of employees on the other hand, the

organization should develop its personnel and also should create an organizational culture and a climate that would provide the employee with the right to decide or to push it up the hierarchy.

Empowerment helps to achieve such a culture and an environment in the organization by increasing organizational effectiveness through developing and deploying competent influence in the human resource. The term empowerment denotes the enhanced involvement of employees in the organizational processes and decision-making. Unfortunately, empowerment is rarely used in the organizations and is less common than other management efforts like teamwork, quality management or inventory control. Although empowerment influence performance in a positive way, unfortunately it cannot be measured properly and directly, yet.



Empowerment and Its Relation to Performance

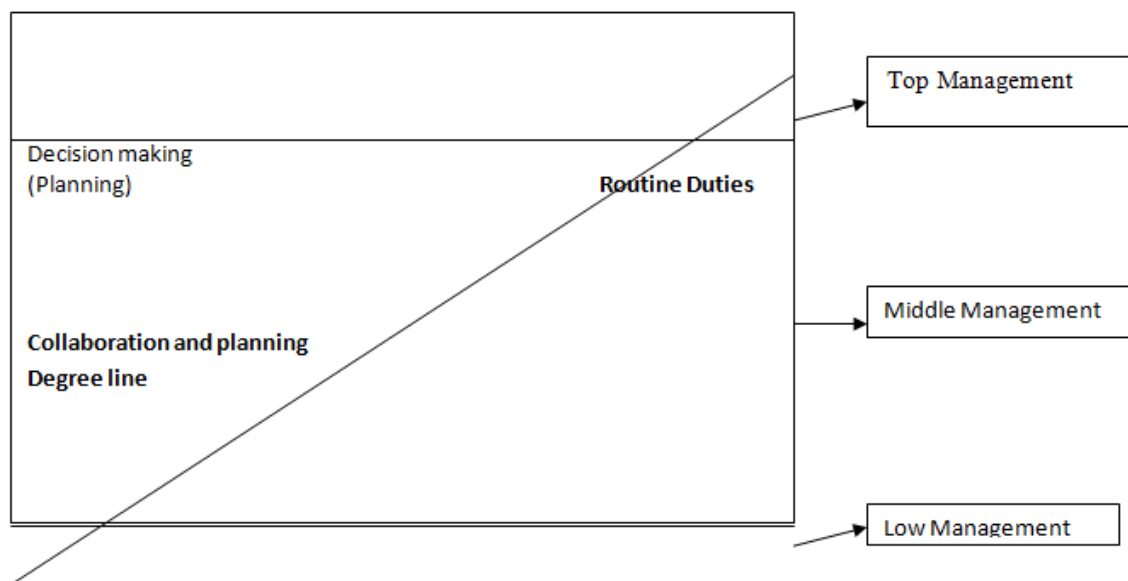
Each and every employee in the organization must consider the elements of competent influence which can be aligned as commitment, capability, and ethicality, in order to create empowered individuals and climate which also would secure a much better performance in the organization.

Commitment: Empowerment leads employee's psychological attachment to the organization, that is commitment. Commitment towards the job is increased as accountability increases. Empowerment also leads to employee engagement. And when there is a shared purpose, employee becomes a self-directed decision-maker towards the goals and objectives of the organization.

Capability: Through history, when an opportunity is given to a person with a right attitude he/she always has done the best of his means and capabilities. Therefore, by employing empowerment, employee is motivated and given the chance to make the best utilization of the opportunities given to him. Workplace will provide him freedom and fun and he/she will get the pleasure of fulfillment of his contribution to work and get full job satisfaction in return.

Ethicality: Being in accordance with the accepted principles of right and wrong that govern the conduct of an employee is called ethicality. When employees are empowered, it will lead to exercising competent influence. Empowering by enhancing more freedom would cause employees express the truth and prevent them from falsehood, and pretends.

After creating empowered individuals and climate in the organization, we propose the decision making performance of all employees at all levels to be improved.



Collaboration degree of the individuals in the decision making process

On the above figure, top level managers have the highest degree of collaboration and planning duties as depicted by the collaboration and planning degree line. Adversely the lower-level managers are expected to have the least degree of collaboration engagement in decision making process and spend their efforts to routine daily tasks more than the higher management levels. If the management at all levels, obey the above division of responsibilities for decision making and routine daily tasks and degree of collaboration(diagonal line), all managers would be expected to contribute the organization at maximum level possible.

CONCLUSION

Employees need to be provided with the greater authority to make independent decisions as more decision making responsibility is concentrated and concerned through empowerment. There is no doubt that empowerment is achieved by objective and structural organizational changes which provides individuals greater convenience to make decisions and use greater influence regarding their work. Involved negative behaviors are improper conduct of some managers towards change, resistance to delegate their control to their subordinates, to make commitment, that are expected to insure long term success of empowerment, as well as employees negative behaviors to change, etc.

Employees attitude against change is generally due to their conditioned behavior to follow orders, and tendencies not to collaborate with others, and not willing to accept greater responsibilities and risks, in work environment. Such difficulties are potential in every organization, and therefore should be accepted as normal, and are expected to be overcome by shared vision of director, intensive organizational support, knowledge, continuous learning, and institutional recognition of the empowerment project team. A successful empowerment endeavor, as an important organizational challenge proves to be successful in providing employee feelings of self-efficacy, and removing conditions which cause restlessness and powerlessness.

Empowerment also gives growth support to its employees through career planning, rewards and welfare, and by employing counseling, motivation, and appraisals techniques, uses social reinforcement and persuasion in the organization. When empowerment approaches adopted, employees gradually would start to feel that they are valued, competent and the jobs they are doing have so great meaning and impact, and, when legitimately empowered, they would continuously be in a mood to believe they have so vast opportunities to apply their skills. In return they are expected to change their behaviors towards using their talents in the work place better than before, and such employee driven changes are expected to bring contribution to the effectiveness and efficiency of the organization.

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DIGITAL PIRACY**Smita M. Junnarkar**Assistant Professor, Department of IT, Chandrabhan Sharma College of Arts, Commerce & Science, Mumbai

ABSTRACT

This is summarizes & updates survey on digital piracy. As my work gets prepared for submission. I recall the help, encouragement and inspirations received from many folks. The objective of this note is to provide a comprehensive and up-to-date overview of digital piracy. Digitization's effect on travel agents suggests fruitful research questions, which include the impact of digitization on the supply of new works, methods for consumer discovery of new products, and new business models available with digital distribution.

Digital piracy is the act of reproduction, using or distributing information products, in digital formats and using digital technologies, without the authorization of their legal owners.

Keywords: Copyright, digital piracy, Cyber lockers

INTRODUCTION

“The Apply of lawlessly repetition and mercantilism digital music, video, pc software package and so on.”(Cambridge university press, 2014).

Now the question is there why do individual pirate? There are several reasons like international airing delays, cheap, digital restrictions, trial runs and lack of different promotion. This sometimes happens once somebody who doesn't hold the copyright of the merchandise makes copies and sells for a less expensive worth than the initial. There are numerous technologies known as watermarking that helps track and establish illegal downloading, or whether or not somebody shared a file lawlessly. Imperceptions watermarks unambiguously identify such file, for example: if one takes a clever file and makes 100 copies, each copy has its own distinctive watermark. Another technology is fingerprint; process IDs different from watermarks as a result of it doesn't insert any data. Rather, it takes a video/music and identifies distinctive and might establish them later. The outlaw trade software package, videos, digital video devices (DVDs), and music. Piracy happens when somebody apart from the copyright holder copies the merchandise and resells it for a fraction of the cost that the legitimate producer charges. Within the simplest terms, piracy is getting materials without the right rights of legal possession. in an exceedingly broader sense, piracy will represent an entire range of intellectual and physical theft. Like what the normal usage of this term suggests, the thievery committed by merciless ocean barbarians within the early 1700s is analogous to this day methods to lawfully acquire or distribute proprietary material.

Users appreciating the efforts within which original creators have place in manufacturing their product, What they are doing is for a living, web piracy is stealing, and simply that it's worse, as not several are often tracked down for his or her vile acts.

The fact remains that not all laws shaped are going to be completely excellent and thus we should always not only accept existent and future laws, however conjointly attempt to reach resolute the audience and lift awareness regarding web piracy.

Currently, the piracy downside spans several company sectors. The MPAA, RIAA, ESA, and SIAA, representing the show, music, gaming, and software package industries severally, have all taken forceful measures to deal with the repercussions from outlaw sharing of their proprietary works. Besides commercial enterprise annual injury reports that rave regarding the millions upon billions of lost profit and issuance pre-litigation notices to celebrated violators, industries have begun collaborating with academic corporations to bring piracy awareness into colleges. With the popularity of the web and technology evolving chop-chop, a lot of and a lot of individuals are selecting to consume their content on-line. whether or not it's from a mobile, pill or sensible TV, online digital consumption is increasing and turning into the people's alternative for accessing film, TV, music, books, software package and games, with fifty nine of United Kingdom of Great Britain and Northern Ireland web users overwhelming content on-line. However, with this increase and demand for on-line consumption conjointly comes piracy and as broadband speeds become quicker and cheaper, businesses from across the inventive industries are seeing a lot of content being pirated and lawlessly accessed on-line.

A recent survey from the initial offering discovered twenty fifth of web users overwhelming content on-line have accessed a minimum of one item lawlessly. The inventive industries play an outsized half in supporting

international businesses, economies and jobs – generating \$2,250 billion of revenue and twenty nine.5 million jobs worldwide. Therefore, it's essential that these industries and therefore the individuals operating inside them are protected Cyber lockers are file-storage and file-sharing services for numerous media file varieties, such as photos, videos and sound files. They provide quick, convenient and anonymous distribution of content, which may be downloaded or streamed and very often these sites are generating significant financial gain through subscription services.

Cyber lockers are unsearchable therefore infringing content is shared on blogs, forums and social media P2P or peer-to-peer sharing sites permits the sharing of digital files among “peers”. Once employing a peer-to-peer network you're permitting files hold on on your pc to be obtainable for repetition by alternative users. You will be able to then transfer precise copies of those files from one pc to a different. Although it's legal to share massive amounts of knowledge or files, a lot of typically than not it's wont to exchange proprietary material lawlessly.

While individuals could believe their files are solely obtainable to many friends, these files are often accessed by immeasurable individuals everywhere the planet who are a part of constant P2P network. The default setting for many P2P networks ensures that people downloading files are simultaneously uploading files, which suggests if you transfer movies you're conjointly distributing illegal content to others. By permitting strangers to access files on your pc, non-public files could conjointly become accessible and place you in danger.

Software piracy is the repetition of distribution, of the software package from out of the law. It's such a profitable business that it's an eye catching of teams in very wide range of different states. According to the Business software package Alliance (BSA), regarding 12 months of all software packages in current use is stolen. Software piracy is the repetition of distribution, of the software package from out of the law. Typically, the license states that you simply will install the initial copy of software package you purchased on one pc which you can create a backup copy just in case the initial is lost or broken.

There are 5 Main kinds of software package Piracy

- Counterfeiting:- This kind of piracy is that the outlaw duplication, distribution and/or sale of copyrighted material with the intent of imitating the proprietary product. ...
- Web Piracy. ...
- User Piracy. ...
- Client-Server Overuse. ...
- Hard-Disk Loading.

Understanding the explanations behind Digital Piracy is that the start toward Ending It, Researchers Suggest though the recording and film industries were able to bring down large-scale file sharing services and programs According to the middle for Copyright data, content thievery is calculable to value the U.S. economy \$58 billion greenbacks, 373,000 yank jobs and \$16 billion greenbacks in lost worker earnings once a year, and to value federal, state and native governments \$2.6 billion greenback survey year in lost taxation. “While downloading one song might not feel that serious of against the law, the accumulative impact of immeasurable songs downloaded illegally—and with none compensation to all the people that helped to make that song and produce it to fans—is devastating,” the Recording business Association of America says on its web site World Wide internet.riaa.com.

The researchers conclude that there are 5 main motivations for scouring

1. Justification
2. Economic incentives
3. Believed generality by peers
4. Experiential reasons
5. Believed lack of risk

In a recent study, worth Waterhouse Coopers (PWC) recommended that the most reason that consumers commit on-line piracy is worth, however that earlier access to content, the perception of peer acceptance and thus the proliferation of ad-supported websites giving free content also are to blame.

Effects of piracy

Decrease in Sales of Legal Copies the number of further licensed copies that maybe sold-out isn't adequate to the quantity of illegally duplicated copies. Pirates usually sell their wares at costs well discounted from street worth's; the substantial worth discounts induce some individuals to get the merchandise who wouldn't otherwise do therefore. Additionally, some unauthorized copies are made for noncommercial reasons (e.g., creating a duplicate for a friend). There's a considerable distinction between obtaining a duplicate without charge from a follower and having to pay the road price; thus a range of these copies wouldn't be purchased if the buyer had to pay one thing approximating the street worth.

Retail worth Effects of Piracy

Street costs are tormented by the extent of outlaw industrial repetition. The result on the road price of legal copies will either be positive or negative.

Positive: the road worth can rise if most price-sensitive customers switch to outlaw copies whereas the foremost price-insensitive customers don't. The ensuing marketplace for legal copies can have less price-sensitive demand, thereby inflicting the manufacturer's profit maximizing worth to extend, that partly offsets the reduction in sales thanks to piracy.

Negative: the road worth can fall if customers don't dissent abundantly in worth sensitivity. Throughout this case all customers are equally probably to search for from a pirate if given a chance, so the result of piracy is to form the demand for legal copies a ton of worth elastic. If demand is a lot of elastic, the increasing monopoly worth falls and thus the proper calculation of the loss to rights holders should embody profits lost on de jure sold-out copies (because piracy forced the value down), in addition as profits lost from pirated copies.

About software package Protection strategies

There are some ways to undertake to shield your software package from piracy... none of them is 100% effective.

Most protection schemes are sometimes composed by following parts:

Check if user incorporates a license to run the software package.

This point are often accomplished by numerous suggests that, like dongles, package licenses to one particular machine, LAN/internet activation and original media checking. Make troublesome for malicious user to defeat the protection theme. This point are often achieved by numerous suggests that, from straightforward code obfuscation, that makes debugging/disassembly troublesome, up to code coding, that makes dismantlement just concerning impossible if user hasn't a program license. First step is that the best to attain and its security degree depend virtually solely on authentication media chosen.

CONCLUSION

It's time to require a stand against piracy to shield your valued paying customers and your Company's name and future success. By mobilization your software package with unjust data and following through on your accusations against infringers, you'll set a name that your software isn't to be pirated and you'll facilitate create a bearing on the worldwide piracy epidemic. People who create a living as a result of they are able to sell inventive works to others, like video game creators are unable to urge any pay and take advantage of their job because of web piracy, which distributes pirated content to alternative users over the internet, therefore showing however web piracy affects the daily lives of people.

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**PROMOTING SELF HELP GROUPS THROUGH MICROFINANCE-WITH SPECIAL
REFERENCE TO BANK OF MAHARASHTRA**

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ABSTRACT

The term self help refers to the provision of aid to self emphasis on self-determination, self-sufficient, self-reliance, self-assertion, self-respect, self-governance, self-employment and self-empowerment by mobilizing internal sources of the members of the group. Self-Help Group is now a well-known concept. It is now almost two decade old. It is reported that the SHGs have a role in hastening country's economic development. SHGs have now evolved as a movement. Mainly, members of the SHGs are women. Consequently, participation of women in the country's economic development is increasing. They also play an important role in elevating the economic status of their families. This has led boost to the process of women empowerment.

Thus, the paper aims to study how Bank of Maharashtra is working towards the upliftment of SHGs through micro finance.

Keywords: Self Help Groups, Micro Finance, Empowerment

INTRODUCTION

Accesses to financial services are constraint for the poor and not interest rates. The poor can save and can indeed use a wide range of financial services. Poor people use not only credit but also saving services, insurance and affordable remittance system to manage assets, generate income and improve their lives. For most of us, micro finance means providing very poor families with very small loans (micro-credit) to help them engage in productive activities.

In other words microfinance is a collective term used for financial intermediation services to low income group and poor customers. Services offered are credit facility, saving accounts, Money transfers, Remittances, Insurance and even Investment.

Microfinance is a general term used to describe financial services to low-income individuals or to those who do not have access to typical banking services. Microfinance is also the idea that low-income individuals are capable of lifting themselves out of poverty if given access to financial services.

“Microfinance is the provision of financial services to low-income clients or solidarity lending groups including consumers and the self-employed, who traditionally lack access to banking and related services.”

Microfinance is not just about giving micro credit to the poor rather it is an economic development tool whose objective is to assist poor to work their way out of poverty. It covers a wide range of services like credit, savings, insurance, remittance and also non-financial services like training, counseling etc.

Self Help Groups are one of the few channels through which financial inclusion can be accelerated. A self-help group may be registered or unregistered. It typically comprises a group of micro entrepreneurs having homogeneous social and economic backgrounds; all voluntarily coming together to save regular small sums of money, mutually agreeing to contribute to a common fund and to meet their emergency needs on the basis of mutual help. They pool their resources to become financially stable, taking loans from the money collected by that group and by making everybody in that group self-employed. The group members use collective wisdom and peer pressure to ensure proper end-use of credit and timely repayment.

Self-help groups are started by non-governmental organizations (NGOs) that generally have broad anti-poverty agendas. Self-help groups are seen as instruments for goals including empowering women, developing leadership abilities among poor people, increasing school enrollments, and improving nutrition and the use of birth control. Financial intermediation is generally seen more as an entry point to these other goals, rather than as a primary objective. This can hinder their development as sources of village capital, as well as their efforts to aggregate locally controlled pools of capital through federation, as was historically accomplished by credit unions. One another goal of the SHG's is the stop exploitation of the women from financial crisis.

In India, Self Help Groups (SHG) represents a unique approach to financial intermediation. The approach combines access to low cost financial services with the process of self management and development for the women who are SHG member. SHGs are formed and supported usually by NGOs or (increasingly) by

Government agencies. Therefore for holistic empowerment of the women to happen-social, economic and political aspects impacting a women's life must converge effectively.

The emergence and rapid multiplication of SHGs based on micro-credit is the phenomenon that is gaining increasing importance in the development scenario. Today there are seven million SHGs in the country. SHGs have been viewed by the State as a strategy for both women's empowerment as well as poverty reduction. SHGs are a conduit for routing a wide range of government sponsored development messages and schemes. NGOs have increasingly been adopting SHGs as a strategy to bring women together, at a faster pace and larger scale than the collective building processes adopted by them earlier. A number of powerful players, like MFIs, NGOs, Corporations and donors, all of whom have a significant and growing interest in the SHG phenomenon, which centers on poor women have entered the arena. Credit is a right that poor women must have access to. The experience of SHGs has shown that they have provided improved access to credit. Poor women are now perceived by the mainstream financial services as credit worthy. Women have used savings and credit for needs such as those related to education and health, and in particular for crises related needs. Participation in SHGs has meant opportunities related to mobility and a legitimate space in the public realm for leaders of SHGs.

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- An SHG is generally an economically homogeneous group formed through a process of self-selection based upon the affinity of its members.
- Most SHGs are women's groups with membership ranging between 10 and 20.
- SHGs have well-defined rules and by-laws, hold regular meetings and maintain records and savings and credit discipline.
- SHGs are self-managed institutions characterized by participatory and collective decision making

Bank of Maharashtra is an Indian bank based in the city of Pune. The bank was established in the year 1935 with an initial authorized capital worth Rs. 10.00 Lacs, although it became operational in the early phase of the next year. The bank got nationalized by the Government of India in the year 1969. With a total number of 1421 branches located all over India as of April 2009, the bank claims to have the largest number of branches within the state of Maharashtra, among all the Public Sector banks. Commonly known as a common man's bank, Bank of Maharashtra adopts a philosophy of "Technology with personal touch", and follows its motto stating "One Family, One Bank, Bank of Maharashtra".

Bank of Maharashtra dedicates branches to Self Help Groups

As part of its 75th Anniversary celebrations, Bank of Maharashtra, Pune based Public Sector Bank, dedicated its specialized branches to Self Help Groups at the hands of Union Finance Minister, Dr Pranab Mukherjee in a function held in Delhi on 18-9-2011.

At the commencement of the function, Shri A.S.Bhattacharya, Chairman and Managing Director, Bank of Maharashtra welcomed all the dignitaries and briefly explained on various initiatives being taken by the Bank for extending banking services with a focused manner to rural areas, particularly Self Help Groups, Micro and Small Enterprises by establishing special service outlets, which is unique in the Banking industry

In the year 2011, the Bank came up with the idea of establishing an all new separate branch for Self Help Groups. This decision was collectively taken by the Board with a sense of responsibility it had towards the society, particularly the poor. One of the major concerns of the bank was that management of SHGs along with other banking facilities under one roof would be very difficult. Hence, the very first SHG branch of Bank of Maharashtra was started in Pune.

Later, in 2011, on the 75th Anniversary the Bank opened its yet another and the only branch for self help groups in Mumbai city, Goregaon (East), having the current Branch Manager Mr. Sushil Mukadan.

The researcher intends to study various initiatives being taken by the Bank for extending banking services with a focused manner to Mumbai area, particularly Self Help Groups, Micro and Small Enterprises by establishing special service outlets, which is unique in the Banking industry.

1. OBJECTIVE

- To understand how Micro Finance is helping SHG.
- To study schemes introduced by Bank of Maharashtra for SHG.
- To know the banking products and services designed by Bank of Maharashtra as per the needs of SHG.

2. HYPOTHESIS

- H_0 : Bank of Maharashtra is working effectively for the welfare of Self Help Group
- H_1 : Bank of Maharashtra is not working effectively for the welfare of Self Help Group

3. RESEARCH METHODOLOGY

To meet the objectives of the research study the required information has been collected through various sources:

Primary: data was collected by personally visiting the SHG branch of Bank of Maharashtra, Mumbai, Goregaon (east) and by interviewing the Branch Manager Mr. Sushil Mukadan with a structured questionnaire. Telephonic interview was also conducted between the researcher and the BMC Officers Mr. Tikkekar and Mr. Salim Patel who are on the panel of Self Help Groups.

Secondary: data was collected through books, articles and websites.

4. REVIEW OF LITERATURE

- As per, **The Economic Times**, SHGs DELAY PAYMENTS TO BANKS (3rd JAN, 2012) “Banks, which of late are seeing lower repayments from microfinance institutions, are facing a similar problem again. This time, it’s from the government-nurtured self-help groups (SHGs). The government has admitted that recoveries from SHGs in recent times had fallen to 70 percent. According to banking officials, the over dues under SHG lending are mounting.”
- As announced by **Rural Development Minister Pankaja Munde**, (29th MAY, 2015) “The Women’s Self Help Groups (SHGs) across the state would be linked to the Skills Development Programme of the Union government.
She also appealed the banks to strengthen the SHG movement by increasing the percentage of loan disbursed to the SHGs, as she addressed the meeting of bank officials in connection with the life-skills development mission of the state.
- According to, **BUSINESS STANDARDS**, (22nd APRIL, 2015) 23,988 people have been imparted skill training in Delhi during the last three years under the National Urban Livelihoods Mission (NULM).
- As per, **Lalitha Shivakumar (1995)** pointed out that the small savings by rural women can generate the requisite resources which can wean the people away from the exploitation of moneylenders savings depend on habits and voluntary savings constitute the key for economic progress. It has also been proved that the poor people can save substantially through group efforts. Promotions of Self-Help Groups have the potential to bring women into the mainstream of economic development paving the way for sustainable development.
- **Karl (1995)** studied the role of SHGs of women on decision-making and concluded empowerment as a multifaceted process, involving the pooling of resources to achieve collective strength and countervailing power and entailing and the improvement of manual and technical skills, administrative, managerial and planning capacities and analytical reflective abilities of local women.
- **According to Dodkey (1999)** has explained that Self-Help Groups are now gaining acceptance, as an alternative system of credit delivery, for meeting the credit needs especially to the people who are the poorest of poor generally comprising small marginal farmers. Landless agricultural labourers, rural artisans, womenfolk and other micro-entrepreneurs. The SHGs are regarded as a support system to the exiting banking operations. The objectives of the SHG is to inculcate the habit of thrift, savings, banking

culture, i.e., availing loan and repaying the same over a given economic prosperity through credit. The principles underlying the SHG model in India are almost identical to Bangladesh concept, i.e., financing the poorest of the poor, ensuring excellent recovery level and empowering women not just by meeting their needs for consumption and productive loans but also through more holistic educative programmes on issues such as sanitation, family planning and the evil effect of liquor consumption in the family.

5. EVALUATION OF QUESTIONNAIRE

• Special Schemes

I. Earlier Schemes

- a. **Swarna Jayanti Shahari Rozgar Yojana (SJSRY)** in India is a Centrally Sponsored Scheme which came into effect on 1 December 1997. The scheme strives to provide gainful employment to the urban unemployed and underemployed poor, through encouraging the setting up of self-employment ventures by the urban poor living below the poverty line.
- b. **Bal Mahila Kalyan (BMK)** founded in 1990, it started off with forming "Self Help Groups" (SHG) to empower women economically. It has also tried to promote life skill education among children. Presently the above two schemes are no more in being since 31st March, 2015 mainly due to the possibilities of misuse of subsidies which were being allotted by the government to SHGs.

II. Recent Schemes

National Urban Livelihood Mission NULM scheme was introduced on 31st March, 2015. The earlier two schemes were replaced by NULM scheme. Under this scheme, SHGs will be linked with banks for loans (subsidized loans @ 7 percent subject to timely repayment). Earlier schemes had interest rate up to 12 percent along with 35 percent subsidy on the principle amount. Employment through Skill Training & Placement, Self Employment Program etc is some of the main objectives of the NULM scheme.

Table showing The Terms and Conditions Required to form a SHG/Gat

Sr.No	Name	Requirements
1	Number of members	10-12 members in a group/gat
2	Age	Above 18 years
3	Locality	All members from same locality
4	Residential proof	Ration Card, aadhar card and pan-card
5	Key people	President, Secretary and Treasurer

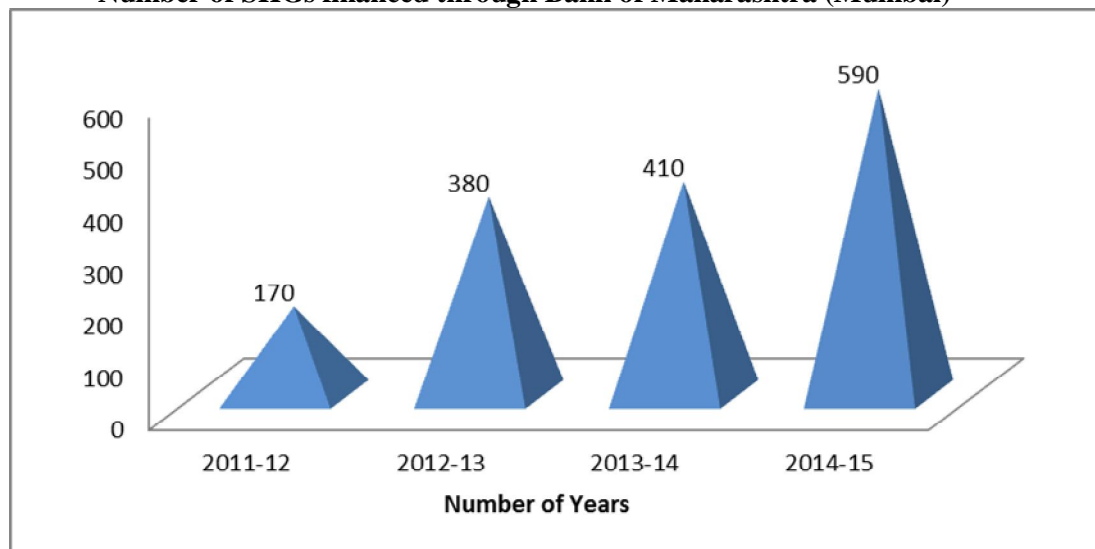
Table showing The Banking Norms formulated for SHGs/Gat

Sr. No	Name	Process
1	Amount	Lending depends upon monthly savings which has to be regular and there should be uniformity in saving amount and according to the proposal loan is given.
2	Current Interest rate	11.5 percent (per annum)
3	Condition for loan	A group must have minimum 6 months of uniform savings
4	Verification	Verification is undertaken by paying personal visits to gats
5	Re-payment term	More than 3 to 5 years

Objectives of the bank

- To inculcate the habit of saving among the members of the gat.
- To develop their habits by interval and internal lending.
- To make them self-sufficient.
- To make them understand the importance of maintaining records.

Number of SHGs financed through Bank of Maharashtra (Mumbai)



• Awareness program

The bank takes various initiatives to create awareness among the members of SHG by arranging several campaigns in the vicinity to make them aware of different schemes, rules and regulations.

• Future plans

As, in Mumbai there are many private NGOs so Bank of Maharashtra is trying to the best of their possibilities to reach out to those NGOs in order to promote and encourage the existence of SHGs in the society.

• Problems faced by the SHGs

- Due to the misuse of subsidy by few self help groups the earlier schemes were put to an end as a result of which the needy were also affected by the decision of the government bodies.
- Differences in views of members of a self help group often leads to misunderstanding which can be the root cause for closing down of the particular group or may even prove to be harmful for the business they are into.

• Problems faced by the Bank

Recovery of loan is the major problem faced by the Bank of Maharashtra. This is mainly due to change in residential address of a member. Also, in case of shifting of gats the bank is not prior informed as a result of which recovery of loan gets difficult.

6. CONCLUSION

During the course of the study the researcher found out that the Bank of Maharashtra is doing tremendously well for shaping the lives of the poor mainly Self Help Groups so the null hypothesis is proved. And have come up with the following findings:

- Microfinance is a major step taken by the Government to uplift the poor by providing them with various financial services like loans, savings, micro credit etc.
- The Concept of Self Help Group is a right step in the direction to promote women and make self help groups financially strong.
- The bank has taken various initiatives like opening of their accounts with the branches, their credit linkage, monitoring, guiding and assisting them in marketing of their products.
- The bank makes sure that the verification of SHGs is undertaken thoroughly by personally visiting the groups. It also conducts various campaigns to make them aware of the rules and regulation, changes in the schemes, if any etc.
- The researcher has also discovered that recovery of loan is the major constraint faced by the Bank of Maharashtra at present. However it is still promptly working for the constant growth and development of SHGs.

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IMPACT OF NPA ON INDIAN ECONOMY

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ABSTRACT

Non-Performing Assets means any amount due or in arrears on scheduled payments of principal amount or interest. Banking sector is one of the major sector which contributes and help to stabilize the Indian Economy to the some extent. These NPAs are located on the Balance Sheet of Banking Companies. Increasing NPAs not only reduce the profitability of the Banks but it also affects the credibility of the Banks. In recent years India has faced problem of bad loans which is jumped to 10.25 trillion at the end of the year 2018. As per direction given by RBI, all Banks have to classify their advances into standard, sub-standard and loss assets, which depend upon the principal amount and interest overdue. Today, the banking sector is dealing with the huge amount of NPAs which is fifth largest in the world. In recent years we have come across the big bad loans by Mr. Vijay Mallya, Mr. Nirav Modi, Rotomac Group etc. Many private banks and public banks get affected by the default in timely payments of principal amount and interest and therefore their loan procedure comes under scanners. The increasing NPAs give clear indication of possible threats to the Indian Economy.

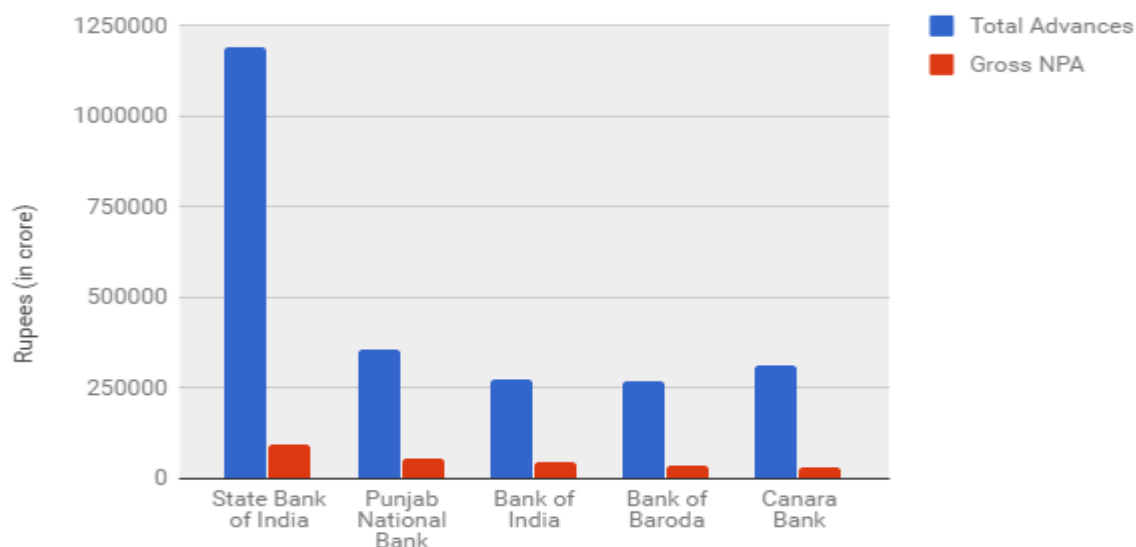
INTRODUCTION

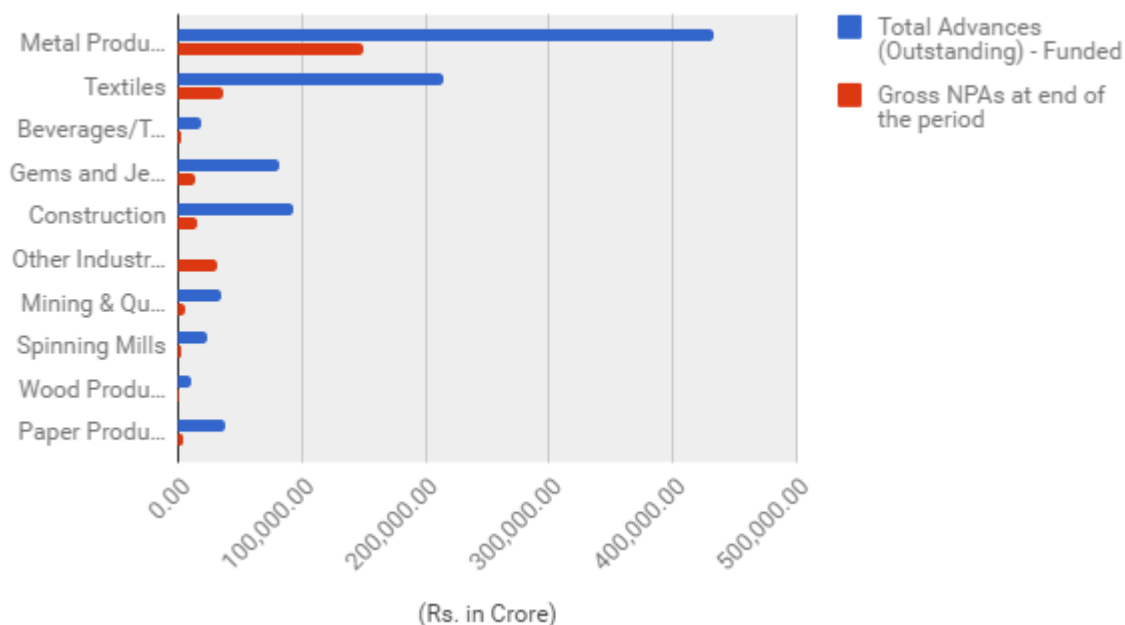
An asset, including leased assets, becomes non performing when it stops to generate income to the bank. As the NPAs of the Banks will increase, it will in turn bring shortage of funds in the market. Banks are required to classify non-performing assets into various categories as per the direction of RBI. India have got the prudential standards but with the specific legal barriers and the time taking aspect of the asset which leads to the disposal process. One of the main causes of NPAs into banking sector is the directed loans system under which commercial banks are required to fixed percentage of their credit i.e 40% to priority sectors. Today nearly 7% of Gross NPAs are locked in hard-core doubtful and loss assets, accumulated over the years. The problems which are happened within the funding process will be postponed to obtain more earnings and the utilization of the manipulation techniques by making use of the political supports.

Banks are required to classify the NPAs in following three categories:

- 1) Substandard Assets:-** The loan amount which remains NPA for a period less than or equal to 12 months is considered as Substandard Assets. Provision is made at 10% on secured outstanding and 20% on unsecured outstanding.
- 2) Doubtful Assets:-** An asset which has remained sub-standard for a period of 12 months is called as Doubtful Asset. Provision is made at 20% if secured up to 1 year, 30% for 1-3 years, above 3 years 100% and for unsecured also 100% provision is made.
- 3) Loss Assets:-** An asset with losses identified by the bank, auditor or inspector ad have not been fully written off. 100% provision is required for all loss assets.

Banks Having Highest Amount of Gross NPA



Top 10 Sectors Having Highest NPAs for Scheduled Commercial Banks**OBJECTIVES OF THE STUDY**

- To know the role of bankers in producing these NPAs.
- To analyze the information regarding the lending process of loans.
- To study the process of banks in recovering the loans.
- To analyze the role of lending procedures within the banking and financial sector.
- To study the procedure and action against defaulters as compared to other countries.
- To suggest the measures to recover the NPAs.

RESEARCH METHODOLOGY & DATABASE

The study is secondary based in analytical in nature. Data is collected from books, statutory bodies, and journals.

CAUSES OF GROWING NPAS IN INDIA**1) Lack of Governance**

- Companies divert their funds after taking the loans for other purpose.
- Absence of due diligence.
- Lack of internal transparency (in case of Vijay Mallya and Nirav Modi).
- Insufficient collateral security.
- Lack of coordination between various responsible authorities.

2) Unfavorable Market Conditions:

- Falling of markets since 2008 has been a reason for increasing bad loan.
- Negative balance of payments.
- Loans disbursed in the peak period when market is at high.
- Over leveraging by corporate sectors.

3) Government Role

- Wrong policies by government.
- Loans are disbursed sometimes under political pressures.

- Lack of proper strict laws against willful defaulters.
- Supports from the government in way of the bailout packages.

4) Legal Problems

- Due to the absence of proper bankruptcy law, corporate faced problems in exiting.
- Corporates often take the legal route which is time consuming leading to problems for the banks.
- Before taking action defaulters gets the time to escape from the country.

Impact of NPAs

- Increase in NPAs of the banks will bring scarcity of the funds.
- Overall GDP gets affected because of rising NPAs. As on 30th June, 2018 the gross NPAs of the banking sector were 11.52% of the total assets.
- Fall in shareholders fund and fall of shares of banking companies. Getanjali Gems shares fell by 18% after the scam was exposed. PC jewellers stock fell by 19.5% the share price was Rs.381 in Jan 2018 and now it is Rs.76.
- Prices of loans and interest rates increases because of NPAs.
- It acts as barrier in development of other sectors too like infrastructural, industrial projects because of high interest and shortage of funds.
- Lower growth rates leads to inflation.
- Problem in expansion and diversifications of banks.
- Lack of shareholders interest.
- ROI (Return on Investment) is decreased.
- There will be big gap between assets and liabilities.

Current developments on NPAs

- The asset quality of banks showed an improvement with the gross NPAs ratio of SCBs declining from 11.5% in March 2018 to 10.8% in September 2018.
- Return on assets is negative.
- The RBI in its report highlighted that, Under the baseline scenario, GNPA ratio may decline from 10.8% in September 2018 to 10.3% in March 2019.
- The Internal advisory committee (IAC) of the Reserve Bank of India (RBI) had recently identified 12 accounts for insolvency proceedings with each of them having over Rs 5,000 crore of outstanding loans, accounting for 25 percent of total NPAs of banks.
- According to RBI, these 12 accounts would qualify for immediate reference under the **Insolvency and Bankruptcy Code (IBC)**.
- **5/25 is a debt restructuring** scheme initiated by the RBI in which the lenders are allowed to fix longer amortization period for loans in infrastructure and core industrial sectors.
- RBI had directed banks to classify loans as 'special mention accounts' immediately if borrower outstanding debt is 2,000 crore or more and to file insolvency application against such defaulters within 180 days from the date of default.
- RBI had directed banks to report to CRILC in case of default in payment within 61-90 days.
- RBI has also directed banks to do the analysis of NPAs sector wise.

SUGGESTIONS

- Loan sanctioning process has to be more transparent.
- Monitoring the loans after disbursement.
- Debt recovery tribunals must be given urgency as to reduce the burden on NCLT.

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- Collateral security must be valued accurately before lending the loans.
 - Responsibilities have to be fixed in case of defaults.
 - Strict action has to be taken against willful defaulters.
 - A suitable agenda to attract and reassure quality professionals to join the discipline of insolvency professionals is vital.
 - Banks should explore the possibilities to develop credit derivative markets to avoid these risks.
 - Selection of right borrowers, viable economic activity, adequate finance and timely disbursement, end use of funds and timely recovery of loans should be the focus areas so as to prevent or minimize the incidence of fresh NPAs.

CONCLUSION

Today everyone is looking at the banking sector as one of the dominating sector of Indian Economy. Therefore there is a need to curb the problem of growing NPAs. It poses a big threat to the macro-economic stability of the Indian economy. Prevention is better than the cure therefore the credit proposals will definitely help the banks in detecting unviable projects. An NPAs is the root cause of slowing down the economy. The directions and valuable recommendations given by RBI help to prevent NPAs in future.

There is also another side of NPA that it pushes the banks to work harder for recovery of their bad loans. New rules and regulations helps the banks to recover its loan easier and faster. Loan should be given by taking into consideration all aspects like collateral security, repaying capacity, CIBIL score etc.

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FUTURE OF ARTIFICIAL INTELLIGENCE – SAFE AI DEVELOPMENT

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ABSTRACT

From voice automated personal assistants to self-driving cars, there has been a tremendous progress in the field of Artificial Intelligence (AI). While the general notion of AI is depicted as robots behaving like human beings, AI can actually encompass anything from game playing agents to autonomous weapons. Though most of the research today is focused on solving one particular task like Image Processing, once combined, AI can overtake humans in almost all cognitive tasks. Progress in AI might be the biggest event in human history, however, some researchers are worried that it might also be the last. While digital life is augmenting human capacities, it is also turning manual effort in a huge number of tasks, redundant and unnecessary. AI isn't just changing homes; it's finding a way into their numerous industries and creating disruptions at the workplace. Thus the question lies in is this entirely beneficial? Many fear that the rise of AI will lead to machines and robots replacing human workers and view this progression in technology as threat rather than a tool to better ourselves. Thus it is extremely important to use technology for ethical purposes, keeping in mind we align our goals with those of development in AI.

INTRODUCTION – EVOLUTION OF AI

The concept of artificial intelligence (AI) is quite ancient. Intelligent robots appear in the fictions and mythologies of many ancient societies, including Greek, Arabic, Indian, Egyptian and Chinese. Today, the field of artificial intelligence is more diverse than ever earlier. Many industry leaders and frontline technology developers believe that we are on the threshold of discoveries that could change human society irreversibly, for better or for worse, the latter being more likely. Actually, AI is all around us in its primitive forms. It gets used when the aggregator cab apps suggest options to us for travel, gmail categorizes mails in inbox; more than 50,000 driverless cars of Tesla ply in the roads in USA, e-commerce softwares, electronic games, and so on. John McCarthy, who originally coined the term “artificial intelligence” in 1956, had said that “As soon as it works, no-one calls it AI anymore.”

To highlight this trend, today AI is regarded as a way of making a computer, a computer-controlled robot, or a software to think intelligently, in a manner in which intelligent humans think. It is accomplished by studying how human brain thinks, and how humans learn, decide, and work while trying to solve a problem. The outcome of such studies forms the basis for developing intelligent software and systems. To do this, the software program that runs the brain of the computer uses adaptive learning algorithms, in which the program uses knowledge of the outcome of an earlier action to modify the action for a more desirable outcome. Eventually, one day, artificial intelligence will enable a computer to think by itself by modifying its own program, without being programmed to do so.

FUTURE OF AI – SAFE AI DEVELOPMENT

Artificial Intelligence (AI) has the potential to improve productivity, efficiency and accuracy across an organization – but is this entirely beneficial? Many fear that the rise of AI will lead to machines and robots replacing human workers and view this progression in technology as threat rather than a tool to better ourselves. It is likely that artificial intelligence will soon replace jobs involving repetitive or basic problem-solving tasks, and even go beyond current human capability. AI systems will be making decisions instead of humans in industrial settings, customer service roles and within financial institutions. Automated decisioning will be responsible for tasks such as approving loans, deciding whether a customer should be taken on board, or, for identifying corruption and financial crime.

On the other hand, many businesses and individuals are optimistic that this AI-driven shift in the workplace will result in more jobs being created than lost. As we develop innovative technologies, AI will have a positive impact on our economy by creating jobs that require the skill set to implement new systems. 80% of respondents in the EY survey said it was the lack of these skills that was the biggest challenge when employing AI programs. Organisations will benefit from an increase in productivity as a result of greater automation, meaning more revenue will be generated. This thus provides additional money to spend on supporting jobs in the services sector.

In the present phase of development, Artificial intelligence is referred to as narrow artificial intelligence, which is designed to perform a narrow task, e.g., only facial recognition or only internet searches or only driving a car.

However, it is anticipated that in the future many researchers will try to create what is known as general artificial intelligence (AGI or strong AI). Narrow AI may learn to do better than humans its specifically designed task, like playing chess where the outcome of all possible allowed moves, no matter how unlikely, can be computed by the computer which the human brain can never do. However, it cannot do subjective common sense reasoning while taking decisions, such as choosing a safer path and adapting oneself for better balance while going down a hill. AGI on the other hand may be able to carry out all cognitive tasks in an integrated manner, and subject to development of suitable machines, outperform humans in all such tasks.

In the long term, the greater concern or hope, depending on the outcome, is that an AI system would become better than humans at all cognitive tasks, by potentially carrying out repetitive adaptive self-improvement, producing an intelligence level far exceeding the human intellect. Although, some experts feel that since designing a smarter AI system is itself a cognitive task, it can never exceed the smartness of the creator. However, this is a grey area where others feel that the software can be programmed to modify itself, and once such features are incorporated, it might do so in a totally unpredictable manner. Such evolutions of AI may turn out to be beneficial, and help us eradicate disease, hunger and poverty. In this way, the evolution of strong AI might be one of the biggest events in evolution of human beings. However, some other experts continue to express concern, that it might also be the last resulting in bondage of humans to machines, unless we develop safety mechanisms or means to align the goals of AI with those of human goals, before it becomes super-intelligent with its own goals which might not be desired.

Although there are counter arguments, to which most researchers agree, that a super-intelligent strong AI is unlikely to exhibit human emotions like love or hate, and hence there is no reason to fear that AI would ever become intentionally benevolent or malevolent. However, the fallacy in the counter argument is that even if it is designed to do beneficial tasks, it might self-develop into taking otherwise destructive steps in the long term, while trying to achieve the short term beneficial goal in the most efficient manner. Thus, what is of major concern is a half-baked partial knowledge based strong AI, which is more likely to be the intermediate stage product in the path of evolution of AI. This is almost inevitable, because even human knowledge is vastly limited when it comes to even mid-term outcome of actions such as in the field of environment, climate, sociology and human-animal interactions, and science and technology. Our limited knowledge of outcome resulted in long term hazards such as enhanced pollution and green house effects, weapons of mass destruction, nuclear accidents, unending human conflicts. Thus it might be an unavoidably incomplete and hence incompetent AI, rather than an evil AI, which might go out of control.

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ECONOMIC EMPOWERMENT: A STUDY ON FINANCIAL LITERACY AS AN IMPORTANT FACTOR FOR ECONOMIC DEVELOPMENT AND ECONOMIC EMPOWERMENT OF PEOPLE OF THANE- KAUSA REGION

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ABSTRACT

Financial Literacy in the most important tool of Economic development of Society. Economic Empowerment and Economic Development of People is the two side of the coin. Economic Empowerment cannot be achieved without Economic freedom of the dependent Population. Economic dependency is the hindrance to the overall development of Society. People are tend to be more powerful when they are economically free and Financial Literacy helps People to acquire knowledge about management of money, encourage saving, ideas of investments, self-dependency etc. Financial Literacy helps the population to become part of Banking System and to avail the number of benefits, services provided by the banks. Financial Literacy enables to move people to the next stage of Financial Inclusion.

Keywords: Financial Literacy, Economic Empowerment, Economic Freedom, Society.

INTRODUCTION

The overall development of the society is possible only if there is long term Economic Development in the Country. India is one of the fastest developing economy of the World. The Primary(Agriculture), Secondary(Industries) and tertiary Sectors (Service) of the Indian economy are booming and flourishing rapidly. The banking System plays an important role in this scenario. The availability of funds and finance through Capitals can be done only with the help of banks. The investments trends have been became a better opportunity for earning in today's economic conditions. And for taking the benefits of banking one should be familiar with the services and schemes provided by the banks. Understanding the money matters is essential for the population today. Understanding money matters and knowing how to use money is called Financial Literacy. Financial Literacy is very important as without proper awareness and knowledge the financial benefits cannot be possible for the people. Financial Literacy is essential to all public as it helps to understand how money's generate and also help to know where the money can be profitably use.

As defined by ANZ BANK(2011)“**Financial literacy is the ability to make informed judgments and to take effective decisions regarding the use and management of money. Financial literacy is therefore a combination of a person's skills, knowledge, attitudes and ultimately their behaviors in relation to money**”

Banks offers number of Products, Services, Facilities, Schemes to the general Public. All categories of Bank Public, Private, Cooperative Banks depends solely on the population for operating in the commercial world. Financial Literacy helps population to gain knowledge about the Basic and advance Banking System. Society needs economic support to become empowered and Financial literacy is the most important factor for the Population. A good knowledge of Banking System will help to guide people to proper Economic development.

Financial Literacy or Financial Education has some major Competencies like Earning, Saving and Investing, Spending, borrowing, Protecting. Financial literacy is important for people's in today's society for availing the benefits of banking system. Government today have number of schemes operating which provide direct help to people through bank accounts like direct transfer of subsidy money of various products, Kanya Dhan Yojana, Scholarship money transfer directly to bank account etc. The Financial Literacy is will help people's ability to grow, monitor and effectively use of financial resources to enhance wellbeing and economic security of their own and of the family. The Economic stability can be achieved by people population through financial literacy and financial inclusion. Financial Literacy termed as Demand to be made by Population of banking products and services and financial inclusion is the Supply to be made by the banks of the same.

Kausa region is a semi urban area which consist of mix population belongs to Economic backward Class. The Population is dominated by Muslim community followed by other sections in small numbers. The condition of people population is very poor as People's of Kausa region are deprived of the opportunities of better employment, education, economic freedom and hence the empowerment level of People is low in the region. Financial Literacy can change the scenario of the status of people as it will make a way for people's to become a active part of banking system. There are in all more than 15 banks operating in Kausa Region. This Study will

help to determine the level of Financial Literacy in People's of Kausa region and also to determine to what extent Financial Literacy have an impact on Overall Economic Empowerment of People of Kausa Region.

OBJECTIVES OF THE STUDY

- To Study the knowledge level about Basic Financial Literacy among the People's of Kausa Region.
- To Study the Role and efforts of Commercial Local Banks to promote Financial Literacy in the People's of Kausa Region.
- To determine how Financial Literacy is an important factor of People Economic empowerment in Kausa Region.
- To suggest measures to make Financial Literacy easier for People's of Kausa Region.

HYPOTHESIS OF THE STUDY

H0: Financial Literacy has no role in the Economic development and Empowerment of People's of Kausa Region.

H1: Financial Literacy is an important role in the Economic development and Empowerment of People's of Kausa Region.

COLLECTION OF DATA

The Collection of the Data for the Study of Financial Literacy is done mainly with the help of Primary Data. The data is collected through Questionnaires framed specifically for different section of respondents. The Population of the Study were the People's and 15 Banks of Kausa Region. The sample Size for data collection was of minimum 50 and maximum 100 People. Questionnaire was prepared for gathering response on Account holding types and for evaluating the Level of Financial Literacy. 15 Commercial Local Bank as taken as the Sample Size for obtaining data about the efforts taken by the local bank for reaching to the Financial Illiterate People. The analysis and interpretation of data is done as per the responses recorded.

LITERATURE REVIEW

ANZ Bank, 2011: The definition provided by ANZ Bank about financial literacy explains about the importance of Management of Money through proper judgments and effective decision making. It explains financial Literacy in the light of Personal Skills, attitudes of People, knowledge of people related to the money.

Financial Literacy as a Tool for Financial Inclusion and Client Protection(UNDP,2012) : Financial Literacy as a Tool for Financial Inclusion and Client Protection a report by United Nation Development Program explains the concept of Financial Literacy in the light of Indian Population and also explained Financial Inclusion in a well sequence structured form. The Guide helped to understand the fundamental requirements of and relationship between Financial Literacy and Financial Inclusion.

Financial Literacy Handbook(E-book): Online notes provided by Financial Literacy handbook in E-Book explained the concept of Making Use of Money, Saving, Investing in simple form which is very helpful to understand the basic term of Financial Literacy easily.

DISCUSSION AND FINDINGS OF THE STUDY

Financial Literacy has many aspects included in it. Financial Literacy means awareness about Banking System, Saving and Investing one's money, management of Money by basic budgeting, knowledge about the facilities available and usage if it. Financial Literacy is essential for People's especially as without active participation in Banking System, Economic empowerment of People's is not possible. The Study conducted shows that the Financial Literacy among the People's of Kausa Region is important for their Economic Development. The Objectives of the Study is explained through proper analysis of the Data Collected and accordingly the inferences are drawn. The People's of Kausa Region belong to mix population of literate and illiterate category. The Level of Financial Literacy is also different for different categories of the People's. Only Financial literacy in it different forms helps for to gain the benefits of Banking System. It also helps to make understand the Banking Products that should be demanded by the People as Customers and have to be supplied by the Banks. Commercial Banks has important role to play in increasing Financial Literacy especially among People's and the study shows that the current initiatives of banks are not sufficient for promoting Financial Literacy. The People's of Kausa needed to be joint in the process of Financial Literacy for their Economic Development and Empowerment. The analysis of the Data explains the status of Level of Financial Literacy, Usage patterns, initiative taken by Banks of Kausa , and benefit of Financial Literacy for Empowerment of People's of Kausa Region.

ANALYSIS OF DATA AND INTERPRETATION

The data for the study is collected majorly through Close ended Questionnaire which was framed as per the needs of the Objectives of the Study. The analysis of the collected data is done keeping in mind the responses of the respondents and also the purpose and objectives of the Study. The different analysis had been done for the responses of different questionnaire

Awareness Level of Financial Literacy among the People's of Kausa Region:

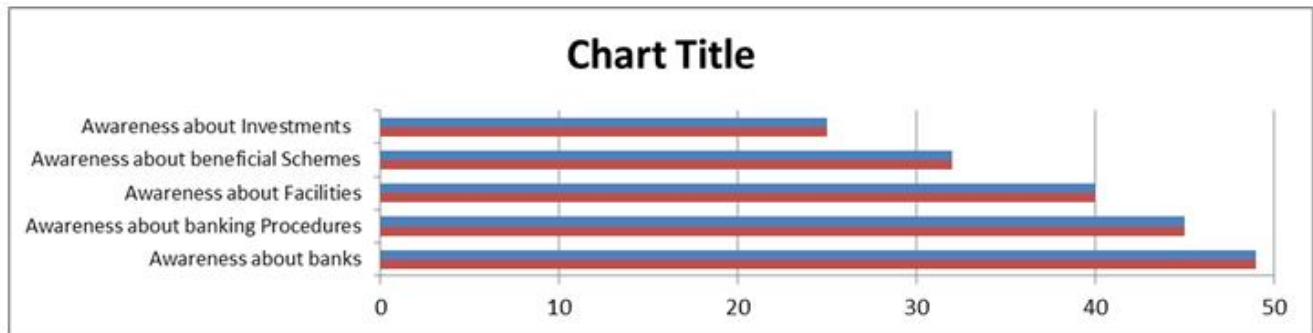


Figure-2: (As Per the Questionnaire)

The figure 1 presents the data about Awareness Level of Financial Literacy in People's of Kausa Region. The responses were obtained from 50 respondents through a Close ended Questionnaire. By YES and NO response the above data is obtained. The data shows that out of 50 people's 39 people's have knowledge of Banks but the other information like Knowledge about Procedure (45), Facilities like ATM, Net banking, online payments etc (40), Investment (25), Schemes(32) is low. This is due to the fact that many Account holders just only have an account on their name but they don't operate it willingly. They may depend on family or others for doing so. This analysis shows that the Financial Literacy among the People's of Kausa is still insufficient as mere knowledge of Banks will not severe the purpose of Economic Education and Development. This can be further explained by the data collected on Status of People's of Kausa Region as Account Holders.

Status of People's of Kausa Region as Account Holders(Male & Female) *Figure 2.*

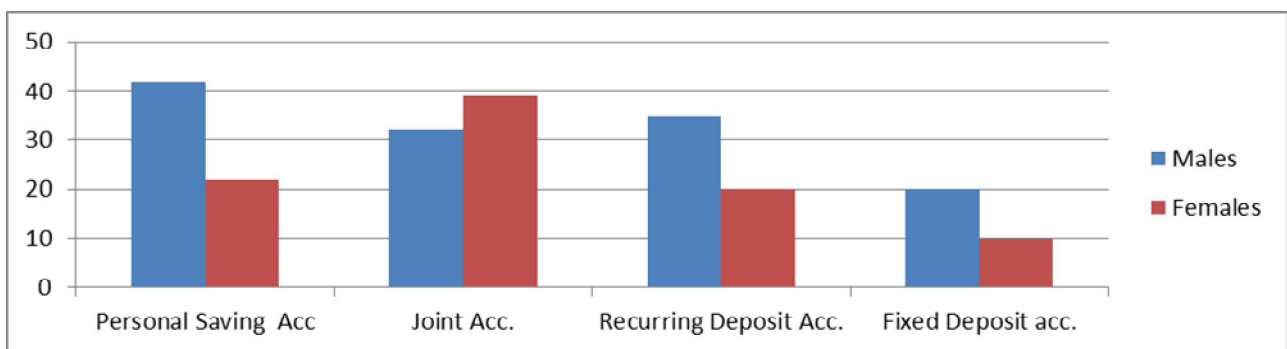


Figure-3: (Graphical Presentation as per Table no. 1)

The data presented in the figure no 2 is the number of account holders as per male and female in different banks of Kausa region. The responses were obtained of 100 people containing 50 male and female each. The options of Personal, Joint, Fixed and Recurring account were given to know the financial involvement of the people of Kausa region. It was clearly observed that the number of males account holder is fairly good as compare to female account holder in every section. The number of Joint Account holder is more in case of Females. This also indicates that the financial control of these joint accounts is with the males counterpart as the financial literacy of female account holder is less. The worst condition of female account holder is in the case of fixed deposit account which make it evident that female are very poorly involved in the long term investment plans.

Role of Local Commercial Banks in Financial Literacy of People's of Kausa Region

The local commercial Banks operating in the Kausa Region can play important role in Economic Empowerment of People of the Region. There are more than 15 banks of Cooperative, Private and Public nature operating in the region of Kausa . Banks like DCB(Private bank) and Canara Bank (Public bank) have 2 branches in the area which make the count 15 in total but the sample selected for response is 13 due to the similar policies of the branches. The data is collected from the bank employees and other members through Questionnaire about the initiatives taken up by the bank for reaching out to the people to make aware them with Financial Literacy who are not in the banking process and also to reach out to the current customers.

The initiatives can be taken by banks like awareness program for financial illiterate people, Surveys, Personal reach by executives, making procedures easier to understand, networking through existing customers etc. Questionnaire related to those initiatives where put and responses were recorded accordingly.

Table no-1: Response of banks on Initiative to be taken by for reaching Financial illiterate People's

Type of Initiative	Response of number of banks out of total 15 banks in YES/NO form on whether initiative taken by bank to reach out Financial illiterate People's of Kausa Region.		
	YES	NO	Total
Awareness Program conducted by bank	05	10	15
Survey done to know financial illiterate people	05	10	15
Personal Reach through Executives	07	08	15
Networking through existing bank Customers	07	08	15
Making KYC and other Procedures easy to attract illiterate non customers	05	10	15
TOTAL INITIATIVE	29	46	75

The above tabular data of table no.01 shows the response of bank on initiatives to be taken by for reaching Financial illiterate People's of Kausa Region. The analysis of the data states that the initiative taken by banks is very poor. Banks are just engaged in providing increasing number of facilities to the existing customers but there is no focus on those Financial Illiterate People's who are still not in the banking System.

The above response explains that only 29 positive initiatives were taken by banks out of 75 possibilities which is a very poor response. The Local commercial banks of Kausa region have to active in reaching Financial illiterate people especially People's

Impact of Financial Literacy on Empowerment of People's of Kausa Region

The impact of Financial Literacy on overall development of People can understand by the Positive outcomes especially in case of Illiterate and Uneducated People. Changes in status of Income, Saving, investments, Standard of Living, Education of Children, Healthcare, knowledge etc. can determine the level of impact of Financial Literacy on Empowerment of People. The data is collected through simple close ended questionnaire through some People respondents regarding the said parameters. Through analysis of the data it is clear that there is a considerable growth in the Income and Savings of People. Through this saving economically backward people can now provide better Education to Children and better health care for herself and her family. The overall standard of living had improved due to banking system. People now are turning towards small and medium type investments and can also avail the benefits provided by Bank like Mahila Bachat Gat of cooperative bank, KANYA DHAN YOIANA of Public Banks, Direct transfer of subsidies money especially for Female Account holder. People due to Savings and Investments and better employment opportunity is self-dependent and can take her decision freely and willing. Economically strong and stable People are tending to more empowered than others. Even the social acceptance and status of People is also improved due to Economic development. All these development is possible only because of Financial Literacy.

People Empowerment is economically impossible and unachievable without proper Financial Education which is nothing but Financial Literacy. Financial Literacy hence became the most important factor for the Economic.

SUGGESTIONS

As per the evaluation and analysis of the data and findings of the Study, followings points are suggested to improve the Financial Literacy of People's of Kausa Region:

- Banks must come forward for creating awareness among the financial illiterate People through personal reach or local level campaigning.
- Procedures must be made easy and understandable for illiterate and other People.
- Existing account holders should be encouraged to use services like ATMs, Net banking, etc.
- Mobile Banking can be started at local level to increase the Financial Inclusion.

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- Banking system must be Language friendly and must be available in all local languages.
 - Proper Banking Curriculum will be helpful at Secondary level Education.
 - Local NGOs can play a supportive role in promoting Financial Literacy.

SCOPE OF FURTHER STUDY

This Study covers the Level of Financial Literacy of People of Kausa Region who are not part of banking system and even those who are in the banking system. This Study provide base for further study on Financial Inclusion of People's of Kausa Region and also can be used to expand the study on how bank can play a productive role in Financial Literacy and Financial Inclusion of People of Kausa Region The study can be a gateway for information on economic background of People's of Kausa Region.

CONCLUSION

Financial Literacy is the most essential step for financial inclusion. Without proper financial literacy it is not possible to avail the benefits of the Banking system The Study explains the importance of Financial Literacy for the People. It state the Status of Financial Literacy of People's of Kausa Region and also explained that the Financial Literacy is a very important factor in Economic development of People of Kausa region. Financial Literacy helps to achieve the overall development and Empowerment of People's of Kausa Region. Hypothesis H1 proved to be correct as per the facts and findings of the Study. Financial Literacy regarding use of different facilities provided by the banks like ATMs, Net banking, Online payment, Use of Debit Card etc. is also increasing. Financial Literacy helps People's to understand the management of money and also encourage them for Small and Medium investments. Financial Literacy guides People's investor for employment opportunities. The banks of local areas on their end also have to play important role in encouraging Financial Literacy among the People

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RECENT TRENDS IN ONLINE MARKETING

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ABSTRACT

With tremendous growth of technology in global world, internet plays a major role in our life and industries. With just few clicks, customers can get access to ample of information. People spend most of their time online surfing, watching videos and using social networking sites. So, marketers are developing new platforms which are interactive and provide two way communications to market their product online. The World Wide Web is a marketing platform used by most businesses for marketing their products and services online. Online marketing refers to exchanging value between buyer and seller for goods and services and is done online. It is also known as Internet Marketing, Web Marketing, Digital Marketing and Search Engine Marketing (SEM). Online marketing includes social media marketing, word ads, banner ads, video Advertisement etc. The major advantage of online marketing is its ability to precisely target customers and measure the effectiveness of marketing strategies. There is tremendous change in buying patterns of the people. So, in order to cope up with this situation industries have already started to adopt new marketing strategies. This paper focuses on Online Marketing, Methods of Online Marketing, Benefits and limitations of Online Marketing and Recent Trend in Online Marketing.

Keywords: Global, Online Marketing, Marketing Strategies, Internet, Social Media Marketing, Search Engine Marketing

INTRODUCTION

Marketing is at the core of all business activities. Without marketing, organizations cannot sell the goods and services to the ultimate customers. Marketing is as important as other business functions like production, research, management, human resources and accounting. The ultimate goal of marketing is to connect the organization to its customers. So, marketing is the performance of business activities that direct the flow of goods and services from producers to consumers or users. Marketing is a process of managing the flow of products from the point of conception to the point of consumption. Although the basic process of marketing has not changed but its ways to reach the global world is transformed and the key role in this transformation has been played by internet. The easy availability of Internet has replaced the traditional marketing in to modern marketing and simultaneously gave rise to E-commerce.

E- Commerce is a system that allows online movements of buying and selling goods, services and information. As technology continues to grow rapidly, online marketers are adopting new techniques to ensure proper online selling and buying. Online marketing or internet marketing is a marketing technique where the marketing and promotion are done online with the help of internet that includes online advertising, using emails and social networking for promotion, word ads, banner ads, video Advertisement etc. Like other forms of market, online marketing has its benefits and pitfalls. Changes in technology have made our society much more open than in the past. As a result, these changes have forced marketers to address, both offline as well as online. Online shopping trends are set to witness greater heights in the coming years.

OBJECTIVES OF THE STUDY

1. To understand the concept and meaning of online marketing.
2. To study the types of online marketing.
3. To state the benefits and limitations of online marketing.
4. To know the recent trends in online marketing.

RESEARCH METHODOLOGY

The data has been collected from various secondary sources. It has been extracted from different published sources such as online journals, magazines and research articles.

CONCEPT OF ONLINE MARKETING

Internet is used as a marketing medium as it has become central to consumers' everyday live. Internet has become an essential part of offices, homes, institutions and our daily life's.

Online marketing is a set of tools and methodologies used for promoting products and services through the internet. It is exchanging values between the seller and buyer and it is done online. It includes a wider range of

marketing elements than traditional business marketing due to the extra channels and marketing mechanisms available on the internet. Online Marketing is divided into three specialized areas such as:-

- 1. Web marketing-** Web marketing includes e-commerce websites, affiliate marketing web sites, promotional or informative websites, online advertising on search engines and organic engine results via research engine optimization (SEO).
- 2. E-mail marketing** – E-mail marketing involves both promotional and advertising marketing efforts via e-mail messages to prospects and current customers.
- 3. Social media marketing-** Social media marketing involves both advertising and marketing efforts via social marketing sites like face book, YouTube, Twitter etc.

BENEFITS OF ONLINE MARKETING

Online Marketing provides various benefits to both consumers and also the marketers by way of marketing more efficiently and effectively along with greater savings.

- 1. Convenience:** - The incredible convenience of marketing online is one of the biggest advantages of online marketing. It offers convenience to customers. They can shop 24 hours a day, 7 days a week, 365 days a year, round the clock from anywhere without going to the store physically.
- 2. Interactive and Immediate:** - Consumers can visit seller's site anytime they wish too and find the products, or services and information they desire. Consumers can also respond immediately to seller's product by ordering them on the spot. So, online marketing helps to secure immediate response from the customers and serves as an interactive medium.
- 3. Customer Relationship Building:** - Whenever a customer purchases product online through company's website, the data is captured. Feedback given by the customers after the purchase of product by them helps the companies to interact in a better way with customers and to learn more about their needs which helps to build customer databases. There are various ways to collect customer data including customer profiles or through their behaviour while on companies website. The information collected through this method includes age, gender, and location, how they came to companies' site, what sites they visited after they left, viewed products and the pages visited on companies' site.
- 4. Reduce Costs and Increases Efficiency:** - One of the main advantages of online marketing is its low operating cost. Communicating online is more affordable compared to traditional communication where in printing broucher costs more than just simply sending mail. For example, you can send the same information in an email rather than a mail-out, saving you on printing, paper, and postage. It also avoids the expense of maintaining a physical store, paying of rent, insurance, and other utilities. Digital catalogs cost less to produce than printing and mailing paper catalogs.
- 5. Easy to modify marketing and advertising campaign i.e. it offers greater flexibility:** – Online catalog and advertising campaign are easy to modify compared to offline marketing. Online catalog can be adjusted according to product availability, changes in prices and promotions to match the changing market conditions by just simply changing the wordings in the catalog or advertising campaign. This means one can easily change the appearance of online shopping mall that is the website.
- 6. Access to Global Markets:-**Internet is a global medium wherein customers can find products from all over the world, so the amount of offers is much more than in a local shopping center. Buying and selling of items from any place is possible, if internet is available so it provides wide coverage to customers worldwide at a click of mouse button within seconds.
- 7. Track Real - Time Results:-**Online marketing uses various tools to track the results of advertising campaign. It helps to track results in real time and also helps to find out how marketing campaign is performing. It gives an idea of how to better grow traffic, leads, sales, and conversions. There are ways to track traditional marketing efforts, but most the time it cannot be done in real-time.
- 8. Demographic Targeting:** - Online marketing allows targeting the audience based on demography such as gender, age, location, specific income levels, educational levels and occupation. It helps to put in better marketing efforts on specific market segment and offer best products or services to them.
- 9. Automated, Tech-Savvy Marketing:** - Marketing this way is easy with a one-mouse-click automation. It takes advantage of a more tech-savvy method. With internet marketing, everything can go automated. Internet marketing gives you the chance to turn every aspect of your business's operations into a fully automated

system. There are various methods in online marketing such as audio, video, blogging, email, social media and ongoing newsletters.

10. Instant Conversion Ability: - With the help of online marketing, marketers have the ability to convert a customer instantly. This is not the case when evaluating marketing options in traditional media such as magazine ads, newspapers or television. Through online marketing not only potential customer's information can be captured, but also capture a sale instantaneously by a few clicks of a mouse, when it comes to offline marketing it takes more time to convert a customer into a sale not to mention the person power it often requires.

11. Ability to Multitask: - One of the core benefits of online marketing is its ability to handling millions of customers at the same time. It helps to do numerous transactions simultaneously because of its efficient website's infrastructure. Online marketing is capable of providing satisfactory service to every customer who makes a purchase online, without the risk of diminished satisfaction. It helps to provide customers the best shopping experience.

LIMITATIONS OF ONLINE MARKETING

1. Customers Ignore Ads: - Many of the customers ignore ads which pop-up on websites. Customers avoid clicking banner advertisements, skip ads in online videos and also close flash up advertisements. Customers have control on which advertising message they want to click and respond to. So, this is the major limitation of online marketing.

2. Face to face contact is limited: - Business that is carried online is not able to build good rapport with the customers. The marketer will not be able to use personal interaction to influence the audience as the marketing is completely based on the online advertisement. Also, online marketing does not provide feel and touch experience for products so many people prefer purchasing the product offline.

3. Limited Access to Internet: - Over the years importance of internet and its usage has increased but still large number of people in rural areas do not have access to internet facility so it becomes difficult for marketers to reach to the customers belonging to lower income group

4. Viewing Problems: - Viewing problems occur when a consumer is using a smart phone to view a website and has poor internet connection speed which will irritate the customer and he will stop the loading of website. Viewing problem also occurs when website is downtime, lags in website or problems in video loading can reduce the number of times consumers see online advertisement. Thus, the companies lose the opportunity to broadcast the advertisements.

5. Cost and Expensive Ad Prices: - Online marketing involves cost such as cost for designing website, hardware and software cost, appointing digital experts, maintenance cost, online distribution cost, hosting of website etc. So the cost of advertisement in online marketing becomes expensive because of above cost involved in it. The cost for banner, text and video ads depend on the amount of traffic and the type of readership a website or blog receives. Online advertising through pay-per-click campaigns and social media sites are also expensive.

6. Safety and Security Concerns: - There are many scams on internet so very few people trust online marketing. Online frauds have made customers develop negative attitude towards online marketing. Customers don't feel safe to make payment online because of privacy concerns. They feel that their account would be hacked which will affect their money transactions and create problem for both consumers and companies that operate online.

7. Too Many Options on Internet: - The Internet offers various websites on which companies can place their advertisements so it becomes difficult for marketers to select a website that will attract most of the potential customers because of various options available to market the products. Once a company selects a website, it has to than select variety of ways it can advertise its products or services on the site, such as through banner advertisements, video marketing or by sponsoring a post. Companies have to determine which type of advertisement yields the best response from their target markets.

TYPES OF ONLINE MARKETING

Various types of Online Marketing are listed below

1. E-commerce
2. Online Advertising
3. Search Engine Marketing

4. Email Marketing

5. Social Media Marketing

There are more online marketing strategies that are being invented all the time.

RECENT TRENDS IN ONLINE MARKETING

Internet has become a central part of consumer's everyday life, its use as a medium for online marketing is critical. The world is changing, and technology is taking the lead. Today, everything is going digital -- entertainment, health, real estate, banking and even currencies. With everything turning to digital, it means companies are also jumping online to market their businesses. To keep up with the ever-changing scene, online marketing experts need to stay in step with the evolving technology trends. The following are the recent trends in online marketing.

1. E-mail marketing: - It is a form of direct marketing which uses e-mail as a communication tool to deliver promotional messages to internet users. Newsletters can be sent to a large number of people via e-mail. Necessary information like new updates about the company, upcoming events and or/special offers can be provided by E-mail. It arrives quicker than post. The companies can do mass mailing with the help of mailing list. Email marketing campaigns are cost effective but it has its own limitations as the online customer can easily ignore the received advertising content or the customer can put these emails in a spam folder. People are "flooded" by lot of spam every day and they get used to not to pay too much attention to such e-mails, and also the fact, that even if the message is not a spam, some e-mail servers can analyze the message as spam and filter it.

2. Search Engine Optimization: - It is a type of online marketing used to improve the quality of traffic from search engines to a desired websites. SEO's objective is that when ever users search for a particular key word your brand should show up at the top position on the search result page of Google, Yahoo and other search engines. The most internet marketers try to reach the position on the first page in the upper area of the page this way companies get a better chance to be noticed by the customers.

3. Social Media Marketing: - Social media marketing is a powerful way for businesses of all sizes to reach prospects and customers. Social media provides an opportunity for marketers to market online with the help of various social media sites like Face book, Twitter, flickr, Google+, LinkedIn, Pinterest, Snap chat etc. Interesting content can be shared online via social networks very quickly and spread awareness of products/services or brand name. It has proven to be successful medium of online marketing because of its ability to like and share the content within their own network of social connections.

4. Blog based marketing: - A blog is a website that provides an individual's opinion on a particular subject. A typical blog consists of text, images, and links to other blogs, web pages, and other media related to its topic. Companies can advertise on blogs through banner ads or with the help of third party blog advertising networks. The advertisements can be targeted at specific group or sector based on requirement. This method is been monetized by marketers where small enterprises presenting and marketing their ideas in minimal cost price.

5. Online Video Marketing: - In the present era, video based marketing is unavoidable in our shopping experience. Product videos have the capacity to increase the sales by helping people to better perceive their choice. It presents a great opportunity for small business marketing. The main advantage of using online video is that it is interactive, so creates more impact on the viewer and makes it easily memorable. It can be easily shared with anyone and it is not so expensive to create. All these features of online video make it widely accessible. YouTube is becoming the easiest way to generate targeted and continuous traffic to a corporate website. Online Video Marketing is a sphere which is definitely on rise.

6. Online Advertising: - Many small business in particular use this online marketing strategy as they don't want to spend money. There are four most common ways how online advertising is done.

A) CPI (Cost per Impression) is when advertisers pay for exposure of their message to a specific audience.

B) Cost per Thousand (CPT) means that the advertisers pay for a thousand impressions.

C) CPC (Cost Per Click) is also known as Pay Per Click (PPC) wherein the advertisers pay each time a user clicks on his advertising, and is redirected to their website.

D) CPA (Cost per Action) sometimes also called Cost per Lead (CPL). CPA defines how much revenue a publisher of advertising receives when a user clicks an advertisement on his website and then completes a certain action. For Example: - the user might be asked to fill out a form or take a survey and if he completes the

form or survey, the action has been completed, and the advertiser pays the publisher a certain amount based on the CPA. Online advertising through classified is also gaining strength and is particularly suited for small business. Online advertising uses mainly the internet and World Wide Web to deliver marketing messages to attract customers. Examples of online advertising include banner ads, contextual advertising, link ads, in-text ads, video ads, image ads, fixed banners.

7. Viral marketing: - It's a marketing strategy that involves creating an online message that is entertaining enough to prompt consumers to pass it on to others that is to spread the message across the web like a virus at no cost to the advertiser. It is a marketing technique that uses social networks such as face book, Twitter or YouTube to achieve marketing objectives like increasing sales or building brand awareness. It works on the belief that consumers who are impressed would tell people what they like and also tell people what they would not like therefore it is also called as word of mouth marketing. But now days, messages are passed on with the help of internet and social networks instead of word of mouth among the people.

8. Content Marketing: - Content marketing is a relatively new concept used by Internet marketers in which unique content about a particular brand or company is created and shared with the intent to attract and build an audience. It allows the brand to find its voice and material provided in content marketing should be of value to the audience whether it is educational, informational, entertaining etc. If the content is liked by the audience than it chances to be shared through various social media channels. It also requires securing an action from the consumer by either by subscribing to a company's email newsletter or actually becoming a customer. Its main intent is to influence consumers in a way that benefits the company or brand.

CONCLUSION

Internet provides an opportunity to communicate with customers globally and achieve the marketing goals with the help of online marketing strategies. One cannot scrap the old techniques but at the same time the marketer has to accept and make use of new techniques in online marketing. There are rapid changes in marketing techniques, strategies and tools. The Industries have to pick them up suddenly, if they want to sustain in competition. By creating and implementing a balanced marketing strategy, using both short-term and long term strategies one can easily get targeted traffic to their website this can guarantee the success of online marketing. This study reflects the concept of online marketing with recent trends and its superiority over traditional marketing with set of advantages comprises wide coverage of global population, reaching the target set of customers and to get respective feedback from them about the product thus creating greater opportunity to engage with them with quick and effective results in optimal cost and measurable result. With each passing day as the Internet is evolving, latest technologies and different marketing strategies will emerge in the online platform of marketing and redefine how different and new products and services will be marketed in a unique fashion in the coming days .With better understanding of the potential of online marketing along with consideration of its advantages and limitations will prepare corporate, entrepreneurs and digital marketers to face the challenges in the coming years.

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REQUIREMENT ANALYSIS FOR AN EFFECTIVE mHEALTH SOLUTION FOR NEWBORN CARE USING TOPIC MODELLING ON APP REVIEWS

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ABSTRACT

The future of a nation is completely dependent on the health and well being of its infants. The first year of a new born is a very crucial period which can decide the life expectancy and overall growth of the infant. There are many health initiatives undertaken by the Government to monitor the growth and overall development of newborns. An anytime anywhere health care can be achieved only by involvement of technology .mHealth solutions which has been successfully implemented for resolving many health issues, can be proposed for newborn care. The study performs requirement analysis using Topical modeling for building an effective mHealth solution for newborn care.

Index Terms: mHealth, newborn care, life expectancy

INTRODUCTION

Children are the future of a society. The first year of their life is the most crucial period. Infant mortality is the death of a child before her/his first birthday. It is an important indication of the overall health of the society. According to 2015 UNICEF report, India tops the list of countries where mortality of children under 5 is higher. In India, the under-five mortality rate (U5MR) is about seven times higher according to the reports. Though India did not qualify to meet the Millennium Development Goal (MDG) target of reducing the mortality by two-thirds over the period of 25 years, it has succeeded in achieving 62% reduction which is commendable considering the huge population of the country .But it still lags behind most of its neighbours. Further efforts continue under India's plan to bring down the U5MR with its India New-born Action Plan (INAP) that was unveiled in 2014. This plan aims at bringing down the rate of neonatal and stillborn mortality. For an overall drop in child mortality, better vaccines, better primary healthcare facilities, improved nutrition, and excellent post-natal care are essential. There are many NGOs which have come forward to deal with this issue. Organizations like Save the Children and SNEHA have been involved in this mission with passion. Infant mortality could be significantly reduced if simple lessons could be taught to new mothers as how to wrap new-borns to prevent exposure to cold, skin-to-skin care, birth preparedness and making sure they reach a hospital in time for medical care. The use of mobile technology can play a very important role in this scenario.

Digital divide has narrowed significantly over the past decade even in Developing countries due to proliferation of mobile phone usage. India's mobile phone subscriber base crossed the 1 billion user's mark, as per data released in 2016 by the country's telecom regulator. With many service providers coming up with competitive data plans mobile devices has become an easy means to connect to internet. In 2017, about 24 % percent of the population accessed the internet from their mobile phone. This figure is expected to grow to 35 % percent in 2022. Growth in internet dissemination will have several significances, including delivery of financial and healthcare services as well as in e-Governance.

Over the past decade, mobile health, or mHealth, has developed as a progressive tool for expanding access to health information and services around the world. mHealth uses mobile and wireless technologies, such as mobile phones, personal digital assistants (PDAs), patient monitoring devices, and mobile software applications to achieve health goals. There is a steady increase in the number of mHealth apps downloaded worldwide and is expected to increase further. This study is performed to propose an effective mHealth solution for new born care. Many a times an app or any software fail because it does not finally meet the expectations of the end-user. The requirements anticipated by the stakeholders need to be properly analyzed to implement an effective system.

MATERIALS & METHODS

Initially a survey based study was conducted to understand the effectiveness of the mHealth apps in neonatal care. There were two types of questionnaire involved. First type of questionnaire was prepared to collect data from expectant mothers and mothers of new born babies. The first part of this questionnaire dealt with the personal data of the respondents. The second section was concerned with the expectations with the mHealth app. The second type of questionnaire was designed for health care experts to understand their expectations and constraints of using such app. This was distributed to various paediatricians, gynaecologists and Community health care personnel. The survey was implemented in two ways. One method was by using google forms and another was by using physical questionnaires. The hardcopy questionnaire was circulated in two different languages in Hindi

and English. This was done with the motive of gaining more number of respondents. There were about 100 respondents for online survey and 25 respondents for the physical local language questionnaire.

About 75% respondents were ready to register to mHealth app to track their baby's growth and connect to paediatrician. The requirements for the app as per the respondents included the following:

1. To fix appointments with the Paediatrician
2. Engage in two-way communication with Paediatrician
3. Reminders for medication and appointment.
4. Share medical records and reports with Paediatrician
5. Track child's growth by monthly weight gain and make possible diagnostic suggestions if needed
6. Tips to handle emergency situations
7. Vaccination Reminders.
8. Polio drive and other communal vaccination remainders
9. Month wise food plan for babies
10. Natural remedies for common diseases.
11. Care and handling tips especially for the first month of baby's life.
12. Month wise milestones to be achieved and signalling a required check-up if not achieved in stipulated time period.

A subscription based multi-tenant SaaS application model is a good way to provide a cost effective solution that enables reaching out to broad set of customers easily.

The industry has accentuated the requirement management system to handle requirements efficiently to make its full and accurate use. This is a process in which the customer's or stakeholder's expectations are properly documented, analyzed, outlined, agreed upon, monitored, versioned and prioritized. This Management also plays a pivotal role in updating the stakeholders about any changes in the requirement, if it happens. This is a continuous process which happens throughout the project life cycle.

In requirement management system, all the needs of the user are considered for the core and managed in a proper system. The requirement management was implemented in this research work by developing an android app with the initial requirements that aroused as a result of requirement survey conducted. This app was deployed to Play Store. App stores allow users to submit feedback for downloaded apps in form of star ratings and text reviews. Analysis of this feedback provides information useful for app developers, such as user requirements, ideas for improvements, user sentiments about specific features, and descriptions of experiences with these features. It could be the driving force for features to be included in future versions.

At times, the amount of reviews is too large to be processed manually and their quality varies largely. An automated method of extracting the important words in the reviews would be appreciated. This research explores the possibility of doing the same on the set of reviews of the app users. With the Google Play Console, one can see an overview of one's app's ratings, individual user reviews, and clustered data about the app's reviews. The review file can be downloaded in .csv format or .json format.

The downloaded review file was analysed using topical modelling. Topical modelling is a text mining technique for automatically identifying topics present in an object. It is different from rule based text mining techniques like regular expression as it is the unsupervised approach for searching and analysing a bunch of words from a large set of text. Latent Dirichlet Allocation (LDA) is the most popular topic modelling technique. Here the review text given by the reviewers were taken into consideration to understand the main issue or request of the reviewer. The image below explains how topical model works:

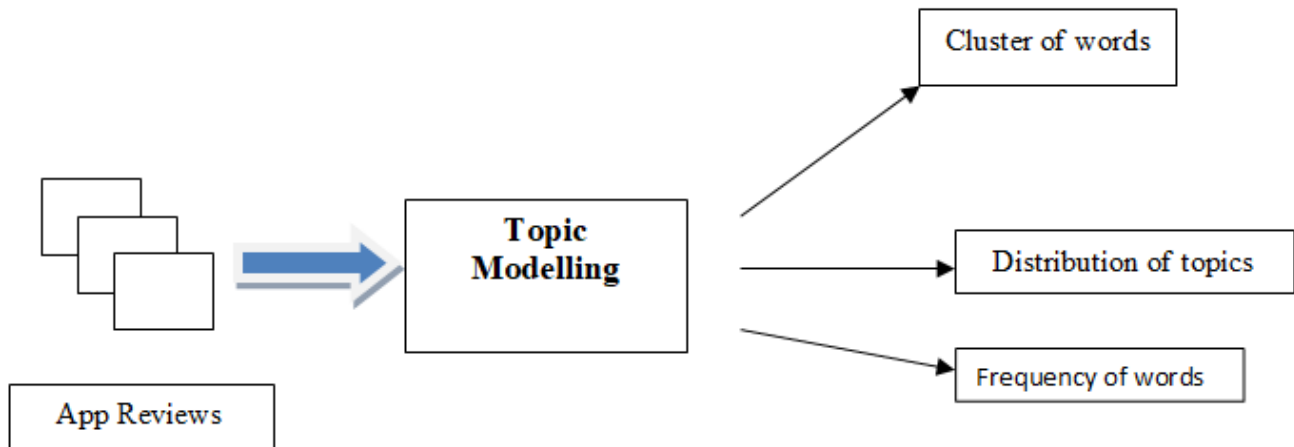


Fig-1: Working of Topical Model

Python libraries were utilised for implementing LDA and finally visualising the topics and terms corresponding to the topic with its frequencies. The various modules used includes nltk, pandas, numpy , gensim, spacy, pyLDAvis, matplotlib.pyplot and seaborn. To visualize the topics in a 2-dimensional space the pyLDAvis library was used .The python implementation is provided with review.csv as input file which is read using the pandas object. Before the text mining, data pre-processing and cleaning needs to be performed which will remove punctuations and stopwords to normalize the reviews as much as possible. The different words in the review texts and its counts are first plotted graphically.

III. RESULTS

From the review.csv file only the column corresponding to Review text was considered for topic modelling and visualising as review text gives the user's view, opinion and extensions about the app. Initially the most common words in the review dataset is plotted .The figure below illustrates as the same:

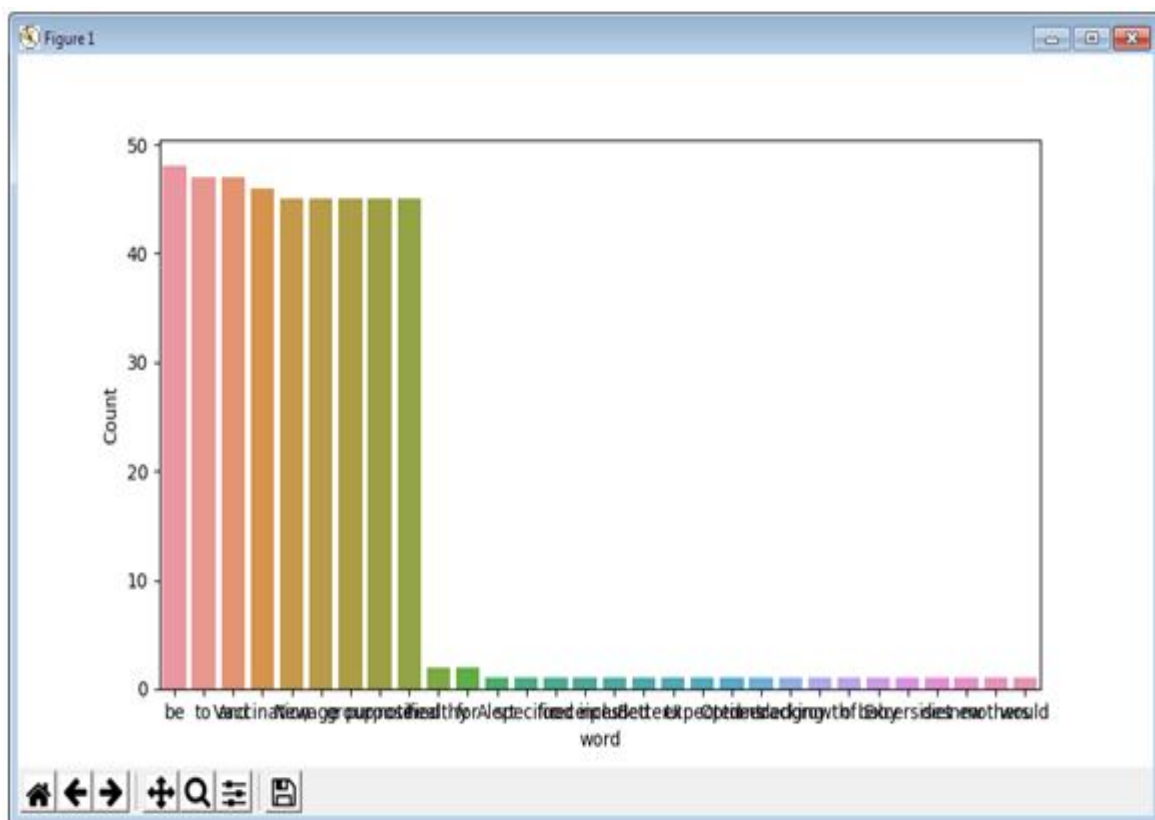


Fig 2: Initial plotting of all words in review

The most common words as illustrated above are 'be', 'to', 'as', 'and' etc. These words are called as stopwords which needs to be eliminated. In addition to these words, punctuations, short words that are less than three letters and numbers are to be eliminated from the review dataset as they are insignificant. The below figure illustrates the frequent words which are more significant than the previous illustration

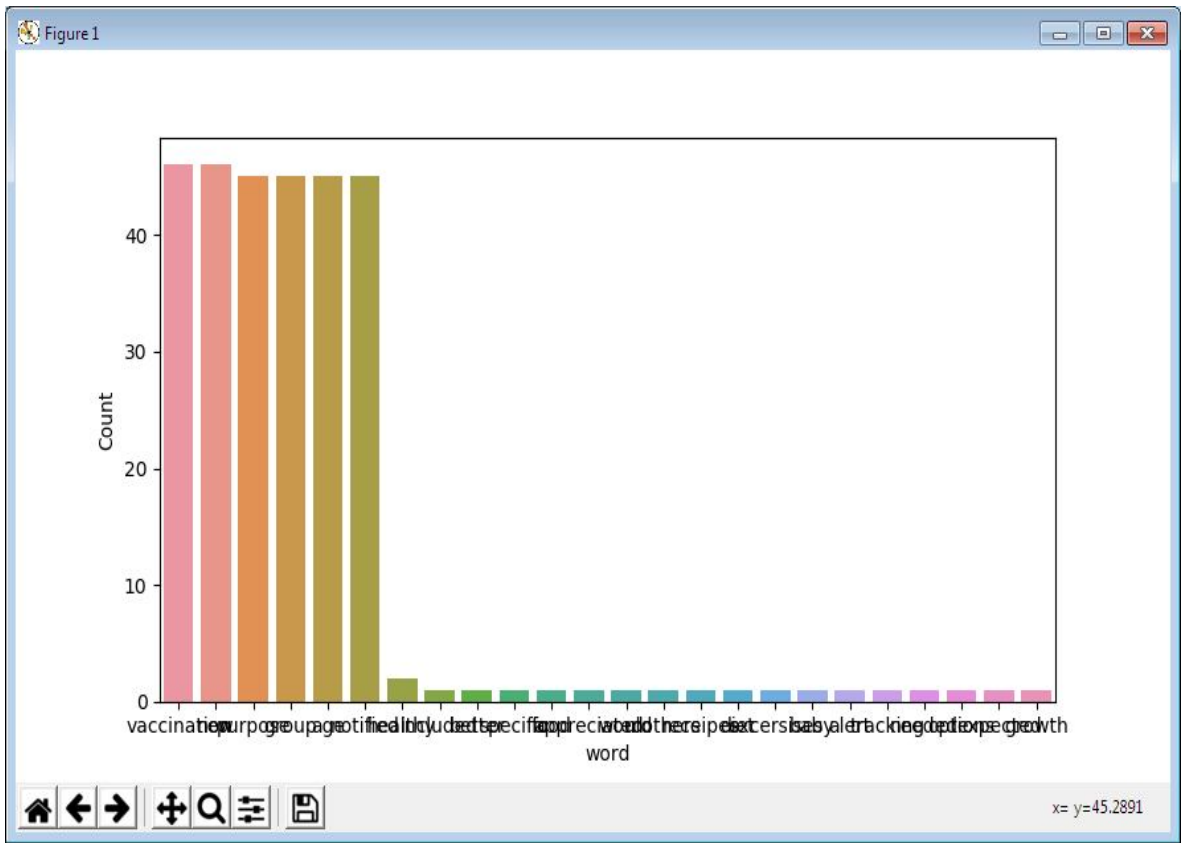


Fig-3: After eliminating stopwords, punctuations, short words and numbers

Further noise in the dataset can be removed lemmatization from the spacy library. In this multiple forms of the same word is reduced to a single word .This is done by first tokenizing the reviews and lemmatizing the tokens. Later the dataset is detokenized and further plotted as illustrated below:

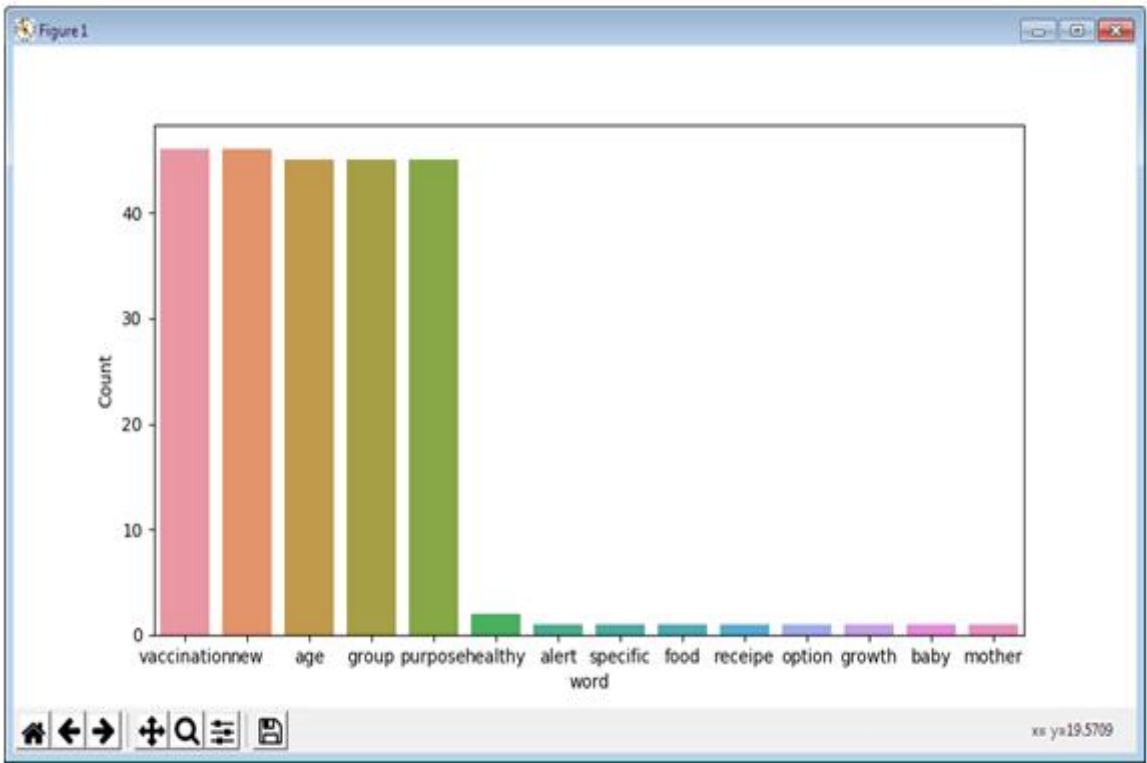


Fig-4: After lemmatization most common significant words are plotted

Once relevant data is finalized LDA topical model is built. The gensim library is used to build the LDA model. Once the topics are created we visualize them in a two dimensional space using pyldavis library.The figure below shows the snapshot of such a visualization

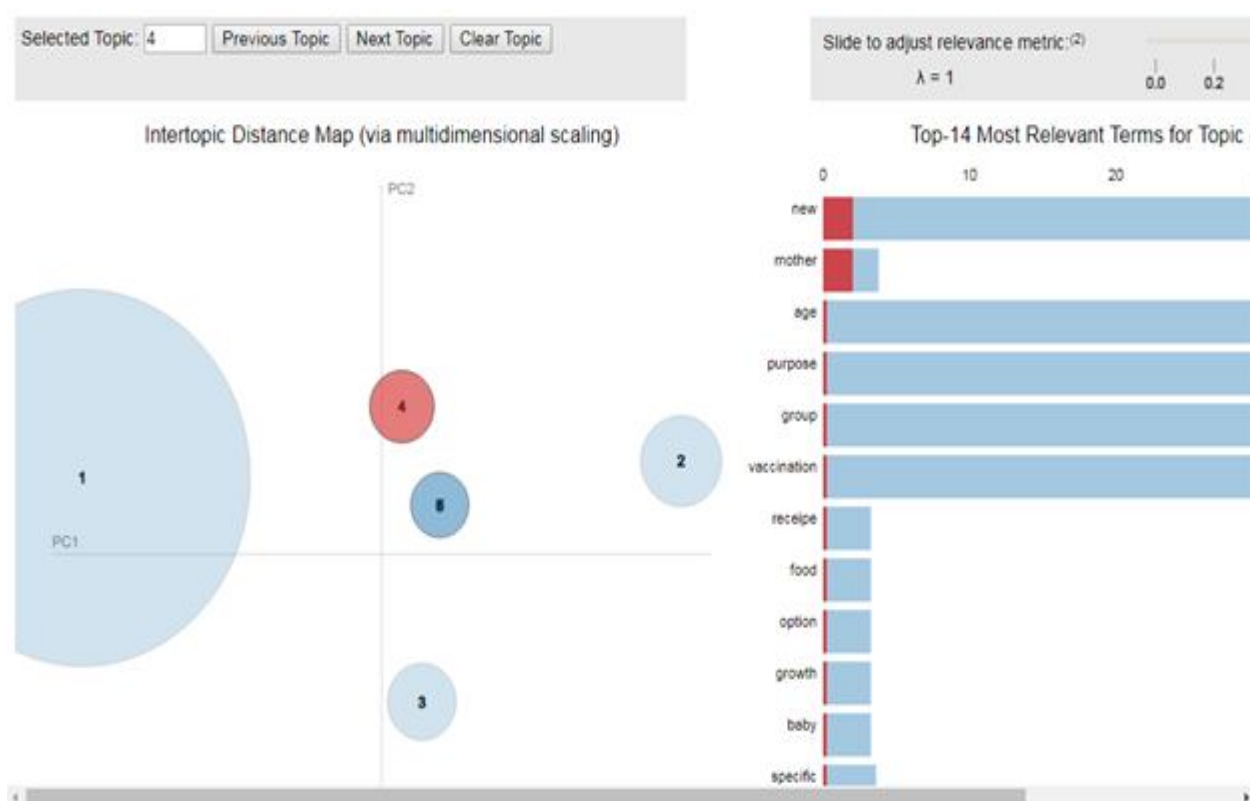


Fig-5: Visualization of LDA topic model

The circular figures at the left hand side represent the various topics and right hand side contains the various significant words after mining. On selecting a topic in the interactive display, all the relevant words corresponding to the topic is displayed.

IV. CONCLUSIONS

The proper mining of the reviews of a prototype is a great tool for efficient requirement analysis. The research paper deals with the topical modelling technique applied on the reviews of the neo natal app named “NeoCare” to retrieve its actual requirements. This technique would help the app to be as per the user’s need and can be applied before releasing every new version of it. Every topic represents a set of words related to it, which makes the process of analysis very easy.

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NPA CRISIS IN INDIAN BANKING SYSTEM

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ABSTRACT

The basic function of banking consists of safeguarding the other people's money by keeping it in custody and lending its part to needy ones. Banking Sector reflects the larger economy as it has linkages to all sectors of the economy. Success or failure of any economy depends majorly on the banking system. The major aim of nationalization of banks was to give priority to meet the credit requirements of neglected sectors like agriculture, small scale industries. The credit facility was supposed to be extended at considerably low rates. With nationalization there was all around growth in branch network, deposits, credit disbursement, assets and employment. Later technological advancements and the liberalized marketplace had led to the complete transformation of Indian banking sector. Growth and developments in Indian industries and the integration of our economy with the global economy are offering various opportunities to the banking sector. Loan portfolio is usually happens to be the largest of the assets and carries the greatest amount of potential risk. Investments are also considered major risk area, after loan portfolio. "Banking sector needs to support the growth momentum in the economy while giving the attention to the assets quality and prudent provisioning to balance emerging returns and risks" (Pranab mukherjee, 2010). The Reserve Bank of India (1999) conducted a study to ascertain the contributory factors for high level of NPAs in banks (published in RBI Bulletin, July, 1999). Over-regulated environment was one of the main factors contributing to NPAs. Other factors identified by the group included diversion of funds, factors internal to business like product/marketing failure, inefficient management, inappropriate technology, labor unrest, product obsolescence, natural calamities, time/cost overruns during project implementation stage, change in government policies, willful defaults and deficiency on the part of banks like delay in release of sanctioned limits etc. The Committee concluded that reduction of NPAs in banking sector should be treated as a national priority item to make Indian banks more strong and geared up to meet the challenges of globalization.

I. INTRODUCTION

The banking system is the heart of the financial system. The major function of the financial system is the mobilization of the public savings and its allocation in different sectors of the economy as an investment. The conversion of financial savings in to investment is known as the process of capital formation in the economy. How this process of financial intermediation (i.e. collecting scattered savings and using it in to productive purposive) is carried out shall reflect the efficiency of the financial institutions and their role in socio-economic transformation of the nation.

1.1 What are non-performing assets?

Assets which generate income are called performing assets and but those do not generate income are called non-performing assets. A debt obligation is where the borrower has not paid any previously agreed upon interest and principal repayment to the designated lender for an extended period of time. The non-performing asset is therefore not yielding any income to the lender in the form of principal and interest payments. Assets in a banking company comprises of fixed assets, loans advanced, investments and current assets i.e. mainly cash in hand and cash with other banks. Loans, advances and investment always have major share in total assets. Efficient management of these assets is most important to ensure profitability and viability of a bank.

Therefore the banks have been instructed to treat an amount in respect of term loans, overdrafts, cash credits, bills purchased and discounted and other accounts as past due when it has not been paid on the due date. A non-performing asset has been defined as an advance in respect of which interest, installment or both have remained unpaid for a period of 90 days, by the RBI with effect from March 31, 2004.

1.2 An advance will be classified as an NPA where in case of

1. Term loans: The interest or installment of principal amount remains overdue for a period of more than 90 days.
2. Overdraft/Cash Credit: The account remains out of order
3. Bill purchased and discounted: The bills remain overdue for more than 90 days.
4. Advances granted for agriculture purposes: Interest and/or instalment of principal remain unpaid for two crop seasons for short duration crops and for one crop season for long duration crops.

5. Other accounts: Any amounts to be received remain overdue for a period of more than 90 days.

1.3 Why assets become NPA?

The Reserve bank of India conducted a study to ascertain the contributory factors for high level of NPAs in banks. It is prominent that Indian banking industry has one of the highest percentage of NPAs compared to international levels. A few reasons for assets becoming NPAs are as under:

1. Lack of proper monitoring and follow-up measures.
2. Lack of sincere corporate culture.
3. Inadequate legal provisions on foreclosure and bankruptcy.
4. Change in economic policies/environment.
5. Non transparent accounting policies and poor auditing practices.
6. Lack of co-ordination between banks and financial institutions.
7. Directed lending to certain sectors.
8. Failure on part of the promoters to bring in their portion of equity from their own sources or public issue due to market turning unfavorable.

II. LITERATURE REVIEW

1. Kamini Rai(2012), in her study on “Performance of NPAs in Indian Commercial Banks” has examined the main reasons for increasing NPA’s in banks in India. She pointed out that the target-oriented approach, which results in ineffective supervision of loan accounts, lack of Managerial and technical expertise on part of the borrowers which ultimately deteriorates the qualitative aspect of lending by banks, are the main reasons for the increasing NPAs in banks. Mario Castelino (2005) in “Managing Non-Performing Assets” stated that in the recent past the NPAs of the corporate sector have come down drastically, where as there is a concern over increase in NPAs in the retail sector and increasing issue of frauds in mortgage loans.
2. Siraj and Pillai (2011) investigated the performance of Indian scheduled commercial banks (SCBs) before and after the global financial crisis (2007-2009). The study was conducted using data available for the period from 1999-2000 to 2010-2011. It was found that from year 2007-2008 to year 2010-2011 the provisions and contingencies that included provisions towards NPAs Grew considerably for all bank groups. The fresh additions to NPAs grew at a higher rate after the global financial crisis. The most affected bank groups were foreign banks and nationalized banks
3. Murali and Krishna (2006) observed that there has been a spurt in the lending activity of banks, in the recent past. This is due to two factors, viz. availability of huge surplus funds with the banks and the losses suffered by the banks in investment and treasury activities. While credit growth is needed for survival, it is imperative to ensure that the credit growth does not result in non-performing advances later. For this, banks have to resort to effective pre-disbursement as well as post-disbursement monitoring. The authors concluded that negligence in monitoring a loan was less excusable than an error at the appraisal stage.

III. RESEARCH METHODOLOGY

The study is primarily analytical and descriptive based on secondary data collected from RBI publications, journals, reports and websites of public and private sector banks in India. The time period covered for the study is from 2005 to 2016.

3.1 Objectives of the study

1. To study the status of Non-Performing assets in Indian Scheduled Commercial Banks in India.
2. To study the impact of Non-performing assets on Banks.
3. To know the recovery of Non-Performing assets through various channels.
4. To make appropriate suggestions to avoid future non-performing assets and to manage it through proper provisions.

3.2 Limitation of the study

1. The study of non-performing assets limited to the Indian banks.
2. The basis of identifying non-performing assets is taken from the Reserve Bank of India reports.

3. Non-Performing assets are changing with the time. The study is done in the present environment without foreseeing future development.

IV. RESULT AND ANALYSIS

4.1 Figures and Tables

To analyze the growth in NPAs among public sector banks and private sector banks, different statistical tools like figures, bar graphs have been used. Compound annual growth rate (CAGR) has been calculated to identify the percentage increase in NPAs over the selected period under study.

Table-1: Gross NPAs to gross advance ratio of public and private sector banks

Year	Public sector Banks	Private Banks
2005	5.36	3.83
2006	3.81	2.41
2007	2.69	2.19
2008	2.06	2.47
2009	1.75	2.92
2010	2.03	2.99
2011	1.97	2.48
2012	2.67	2.09
2013	3.24	1.77
2014	4.09	1.78
2015	5.26	2.10
2016	10.69	2.83

From Table 1, it can be seen that Gross NPAs to gross advance ratio of public sector banks have doubled in the last ten years.

Table-2: Rising NPAs in public and private sector banks in India.

(Amount in Rs.Crores)

Year	Public sector Banks	Private sector Banks
2005	105407	42116
2006	84934	31703
2007	89657	40282
2008	9327	56469
2009	102863	74120
2010	168131	65060
2011	212640	44322
2012	389686	44012
2013	618509	5994
2014	885464	88615
2015	1226734	141283
2016	251481	266774

From table 2, it is found that CAGR in NPAs for public sector banks is 33% as compared to 18% for private sector banks which shows a mounting increase over the period under study.

1.2 Causes for NPAs

1. Causes accountable to banks

- Poor credit appraisal mechanism
- Wrong selection of borrowers
- Lack of trained staff
- Inflexible attitude
- No delegation of authority
- Lack of proper follow-up by banks
- Weak post-credit appraisal system
- Inefficient management of lending facilities

2. Causes accountable to borrower

- Longer gestation time
- Mismanagement of funds
- Wrong selection of projects
- Diversion of funds
- Lack of quality control
- Rising expenses
- Poor choice of location
- Inadequate attention to research and development

3. Other causes

- Fast changing technology
- Political warfare
- Taxation laws
- Credit policies
- Government policies
- Increase in factor cost
- Changes in consumer tastes and preferences
- Recession in the market

1.3 Impact of NPAs on banks

1. Liquidity position: NPAs affects the liquidity position of the banks, thereby creating a mismatch between assets and liability and force the banks to raise resources at high cost.
2. Undermine bank's image: High level of NPAs shadows the image of banks both in domestic and global markets. This ultimately leads to lower profitability.
3. Effect on funding: Increasing level of NPAs in banks results in scarcity of funds in the Indian capital market as there will be only few banking institutions who will lend money.
4. Higher cost of capital: It shall result in increasing the cost of capital as banks will now have to keep aside more funds for the smooth working of its operations.
5. High risk: NPAs will affect the risk-bearing capacity of the banks.
6. Effect on income: NPAs will reduce the net interest income of the banks as interest is not charged to these accounts.
7. Declining productivity: It will also cost in terms of time, money and manpower which will ultimately results in declining profitability, since the staff is primarily engaged with preparing papers for filing law cases to recover principal amount and interest rather than devoting time for planning mobilization of funds.
8. Effect on ROI and profitability: It reduces the earning capacity of the assets thereby negatively affect the ROI. All NPAs need to be prudentially provided for which shall have a direct impact on the profitability of the banks.
9. Ultimate burden on society: It will ultimately affect the consumers who now will have to fetch out more money for paying higher interest.

1.4 Suggestions to reduce NPAs in banks

1. Revision of existing credit appraisal and monitoring systems by RBI
2. Regular follow-up of customers by the banks to ensure that there is no diversion of funds.
3. Review of all loan accounts at fixed interval.
4. Proper training to bank employees and staff to overcome the weakness of credit appraisal and credit monitoring.

5. Banks may resort to one-time settlement scheme or compromise settlement scheme.
6. Recovery through Debt Recovery Tribunals and Lok Adalats are other ways. Banks these days.

V. CONCLUSION

The banking sector is an important constituent of financial sector of any country. In fact, it is the backbone of a nation's economic system, because it channelizes savings of masses to productive activity. It also provides the required credit for various development project of the government and also controls the flow of credit through credit creation mechanism. Failure of a country's banking system can ruin the whole economy and vice versa.

Non-performing assets have always been a problem for the Indian banking sector as it is having a direct impact on the profitability of the banks. The failure of the banking sector may have an adverse impact on other sectors. Thus, there is a need to ensure that the banks take proper steps to resolve it, thereby ensuring fair and efficient recovery of loans so that banking sector continue to function without stress. The study reveals that the extent of NPAs is comparatively more in public sector banks as compared to private sector banks. The government is taking many steps to reduce the problem of NPAs but banks should also have to be more proactive to adopt a structured NPAs policy to prevent the non-performing assets and should follow stringent measures for its recovery. Bankers should also consider the ROI on a proposed project and provide loans to customers who have better credit worthiness as prevention is always better than cure.

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PERFORMANCE EVALUATION OF CO-OPERATIVE BANKS IN INDIA

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ABSTRACT

Co-operative banks play a vital role as it established to provide financial service to rural masses in India. They have established with the motive of financial inclusion and upliftment of rural economy. They play significant role in the social and economic development of India. This paper focused on structure, growth and performance co-operative banks, to identify the problems faced by them and to give suggestion to improve financial position of co-operative banks. The data has been collected from various annual reports of SCB, DCCB and PACS. The statistical tools have been used are for the data analysis are percentage, percentage change, co-efficient of variance, Compound annual growth rate and graphs etc. The study will help will help to the policy makers in their efforts to improve the working performance of Co-operative banks. To evaluate the performance of Co-operative banks some variables have been studies like numbers of braches, total deposit, productivity per staff and branch, percentage of overdue to demand, NPA and profitability etc. The result shows that they are facing the problems of high overdues more NPA, productivity per staff and branch is less due to which profitability of them is weak especially PACS are in losses The problem faced by co-operative banks are numerous but certain efforts need to take by these bank like focus need to give on recovery, training to staff to improve productivity and the government should give support them because they have potential to solve these problems

Keywords: growth, performance, co-operative banks, financial etc.

INTRODUCTION

Co-operative banks play a vital role as it established to provide credit and financial services to poor, illiterate, unskilled people. Cooperative bank are one of the important part of cooperative movement in India. Cooperative banks are one of the largest such networks in the world with 8,43,212 membership in SCB, 32,33,864 in DCCB and 1,31,235 in PACs as on 31 March 2017. They are contributing more for the financial inclusion. The cooperative banks are controlled and regulated by Reserve Bank of India (RBI) and governed by Banking Regulations Act 1949 and Banking Laws (Co-operative Societies) Act, 1955. They follow co-operative principal of one person, one vote and operate especially in rural area and urban area also. Present paper attempt evaluate the performance of Sate Co-operative Banks (SCBs), District Central Co-operative Banks (DCCBs) and Primary agricultural Co-operative Societies (PACS) in India.

OBJECTIVES OF THE PAPER

1. To study agricultural Co-operative Credit Institutions in India
2. To study the growth and performance of Co-operative banks
3. To study problems faced by Co-operative banks and to give suggestion to improve financial position of co-operative banks.

Significance of the Study The research study focuses on evaluation the performance of Co-operative banks in India. The result of the study will help to the policy makers in their efforts to improve the working performance of Co-operative banks.

Data Collection: The present study is mainly based on secondary sources of the data. The data collected from various journals, articles and various annual reports of SCB, DCCB and PACS which is retrieved from the website <http://nafscob.org/>

Period of the study: To analyze the performance of cooperative banks the period of 08 years i.e. 2009-10 to 2016-17 has been selected.

Data Analysis: The results of the analysis are based entirely on secondary data. Some relevant statistical techniques like Average, percentage Change, Compound Annual Growth Rate, Coefficient of variation, Productivity ratio and graph have used to get relevant statistical inferences according to objectives of the study.

Agricultural Co-operative Credit Institutions in India

Co-operative bank provide credit agriculture and non-agricultural sector. In terms of agricultural credit, there are two separate financial institutions to satisfy the need of short-medium term credit and long term credit.

Short-medium term credit is provided by State Co-operative bank (SCB) in each state, at the district level District Central Co-operative banks (DCCB) and at the village level primary agricultural co-operative societies (PACS). Long term credit is provided by State Cooperative Agriculture and Rural Development Banks (SCARDB and primary co-operative agriculture and rural development banks. They provide long term credit to members through their branches.

State Co-operative Banks: State co-operative bank is the apex bank in the each state. They operate at the state level. They coordinate the activities of DCCBs, control them and give required guidance. There are 32 State Co-operative banks in India. SCB obtained finance from Share capital, Deposit collection from co-operative institution, public & business and loan from RBI. The state co-operative banks provide credit to primary agricultural Co-operative societies through DCCBs for lend money to farmers. They coordinate the activities of DCCBs, They control them and create proper environment for growth of co-operative activity in the state.

District Central Co-operative Banks: The DCCB operate as apex bank of Co-operative Society at district level. They are regulated by State Government, NABARD and partially controlled by RBI. They obtain fund from share capital, deposit, loan and overdraft from SCBs. These banks give loan to their members within the limit of the borrowing capacity of the society. The Central Co-operative Banks coordinate between SCB and PACS for providing financial assistance to PACS. They supervise the functioning of PACS and giver training, guidance and advices to the employees of credit society only.

Primary Agricultural Co-operative Societies: They operate in rural villages. The main aim of PACS is to make the farmers free from the fatal grip of local of local lenders and releasing them from their exploitation and providing the loan at cheaper rate of interest. Important functions of them are to provide short term and medium loan and advances to needy members to purchase agricultural tools, seeds, fertilizers, insecticides and pesticides, purchase cattle and fodder etc. They encourage the habits of saving among its members.

Performance of Co-operative banks in India

To evaluate the performance of Co-operative banks some variables have been studies like numbers of braches, total deposit, productivity per staff and branch, percentage of overdue to demand, NPA and profitability etc.

Table No-1: Progress of number of branches of Co-operative banks in India

Year	SCB	% Change	DCCBs	% Change	PACS	% Change
2009-10	1015		13238		89523	
2010-11	1028	1.28%	13327	0.67%	90279	0.84%
2011-12	1047	1.85%	13495	1.26%	92432	2.38%
2012-13	1081	3.25%	13655	1.19%	90958	-1.59%
2013-14	1096	1.39%	13811	1.14%	93042	2.29%
2014-15	1131	3.19%	14060	1.80%	92789	-0.27%
2015-16	1168	3.27%	14241	1.29%	93367	0.62%
2016-17	1197	2.48%	14252	0.08%	95595	2.39%
Average	1095.37		13757.59		92248	
CV	6.02%		2.89%		1.97%	
CAGR	2%		1%		1%	

Source: Compiled data from various annual reports of SCB, DCCB and PACS (2009-10-2016-17) which is available at website <http://nafscob.org/>

Above table no 1 refers the progress of SCB, DCCB and PACS in number of branches. The number of branches SCB has increased from 1015 in 2010-11 to 1197 in 2016-17. In terms of number of branches of DCCB increased from 13238 to 14252 with CAGR 1% during study period. Number of branches of PACS increased from 89523 to 95595 with CAGR 1% during study period. The CAGR is more found of SCB with 2 % which is than DCCB and PACS. The value of Coefficient of variance is more found with 6.02 % than DCCB and PACS which indicates fewer consistent or more variable during study period.

Deposit Mobilization: The deposits are the greatest liability of the bank. The deposit is the life blood in the banking institution. It determines the working and viability of the bank. The performance of deposit of co-operative is shown in table no 2

Table No-2: Total Deposits of Co-operative banks in Maharashtra (Amt. in Crore)

Year	SCB	Growth	DCCBs	Growth	PACS	Growth
2009-10	84838		146364		35680	
2010-11	81664	-4%	161309	10%	37282	4%
2011-12	86653	6%	176711	10%	54763	47%
2012-13	89905	4%	195726	11%	37561	-31%
2013-14	101970	13%	215662	10%	81895	118%
2014-15	100791	-1%	251116	16%	84616	3%
2015-16	104922	4%	282609	13%	101065	19%
2016-17	121689	16%	311858	10%	115884	15%
Average	96554		217669.37		68593.25	
CV	12.9%		25.4%		42.9%	
CAGR	5%		11%		18%	

Source: Same as table no 1

It is reveals from the table total deposit of SCBs has increased from 84838 Crore to 121689 Crore from 2009-10- to 2016-17. Total deposit of SCB, DCCB and PACS have shown upward trend with CAGR 5%, 11% and 18 % respectively. The average total deposit was more found with 217669.37 Crore of DCCBs compared to others. The value of Coefficient of variance is more found with 42.9% of PACS which indicates less consistent. The value of Coefficient of variance is less found with 12.9% of SCBs which indicates more consistent.

Table-3: Productivity per staff and per branch of Co-operative banks in India

Year	Productivity per staff			Productivity per Branch		
	SCB	DCCBs	PACS	SCB	DCCBs	PACS
2009-10	971.93	862.82	53.90	13196.26	5737.47	129.76
2010-11	999.11	336.39	40.20	13082.75	2219.41	129.36
2011-12	1221.29	461.88	75.82	15500.00	2943.31	171.18
2012-13	1464.82	465.69	61.26	16297.35	2919.71	141.53
2013-14	1486.71	482.89	119.72	17950.39	2954.38	227.80
2014-15	1582.69	240.57	141.00	17728.65	1426.11	249.86
2015-16	1748.17	626.05	147.18	19307.70	3681.79	277.99
2016-17	1905.86	630.51	165.94	20418.38	3678.95	299.54
CAGR	10%	-4%	17%	105%	-6%	13%

Source: Same as table no 1

It is observed from above table 3, productivity per employee of SCB was found more which increased 971.93 to 1905.86 from 2009-10 to 2016-17 than productivity per employee of DCCB and PACS. Productivity per branch of SCB was found more with 13196.26 increased to 20418.38 from 2009-10 to 2016-17 than productivity per branch of DCCB and PACS. The compound annual growth rate of Productivity per Staff and productivity per branch was more found with 17 % and 13 % of PACS respectively than SCB and DCCBs.

Table No-4: Percentage of Overdue to Demand of Co-operative banks in India

Year	SCB	DCCBs	PACS
2009-10	8.2	26.64	41.36
2010-11	7.69	27.37	24.99
2011-12	3.86	21.88	24.79
2012-13	5.18	20.37	26.67
2013-14	4.35	21.78	19.01
2014-15	4.48	20.92	22.42
2015-16	4.42	20.08	17.60
2016-17	3.56	23.33	26.58

Overdue problem is not good for the any bank. If the outstanding loan increases, it becomes overdue. Percentage of Overdue to Demand ratio shows that part of outstanding receivable amount that is in late payment. In above table no 4 noticed that ratio of percentage of overdue to demand of SCBs has decline from 8.2 percent to 3.56 percent during study period. It indicates the good recovery of SCBs in recent years In case of DCCBs, percentage of overdue to demand was also showed a declined trend from 26.36 percent to 20.08

percent from 2009-10 to 2015-16 but after that it rose to 23.33 percent in 2016-17. In terms of PACS, percentage of overdue to demand ratio is more than SCBs and DCCBs. Percentage of overdue to demand ratio was highest 41.36 percent in 2009-10 which reduced to down 24.99 percent in 2010-11, after that percentage of overdue to demand ratio has fluctuated and stood at 26.58 percent in 2016-17.

Table No-5: Gross NPA of SCB and DCCB in India (%)

Year	SCBs	DCCBs
2009-10	11.06	16.70
2010-11	9.12	16.98
2011-12	7.84	11.59
2012-13	9.12	10.12
2013-14	3.30	11.37
2014-15	4.62	11.13
2015-16	4.35	9.83
2016-17	2.85	9.39

Source: Same as table no 1

Non-performing asset during the eight years is shown in table no 5, percentage of NPA of SCB which was high with 11.06 %, 9.12 %, 7.84 % and 9.12 % in the year 2009-10, 2010-11, 2011-12 and 2012-13. But after that it continuously reduced to 2.85 % in 2016-17, In terms of NPA of DCCBs has also shown little improvement which was reduced from 16.70 percent in 2009-10 to 9.39 percent in the year 2016-17.

Profitability is the most important thing for the existence of any business entity. It shows the overall strength and weakness of the bank. As considering the profits and loss of co-operative banks in India have been shown in table no 6.

Table No-6: Profit and Loss of Co-operative banks in India (Amt. in lakhs)

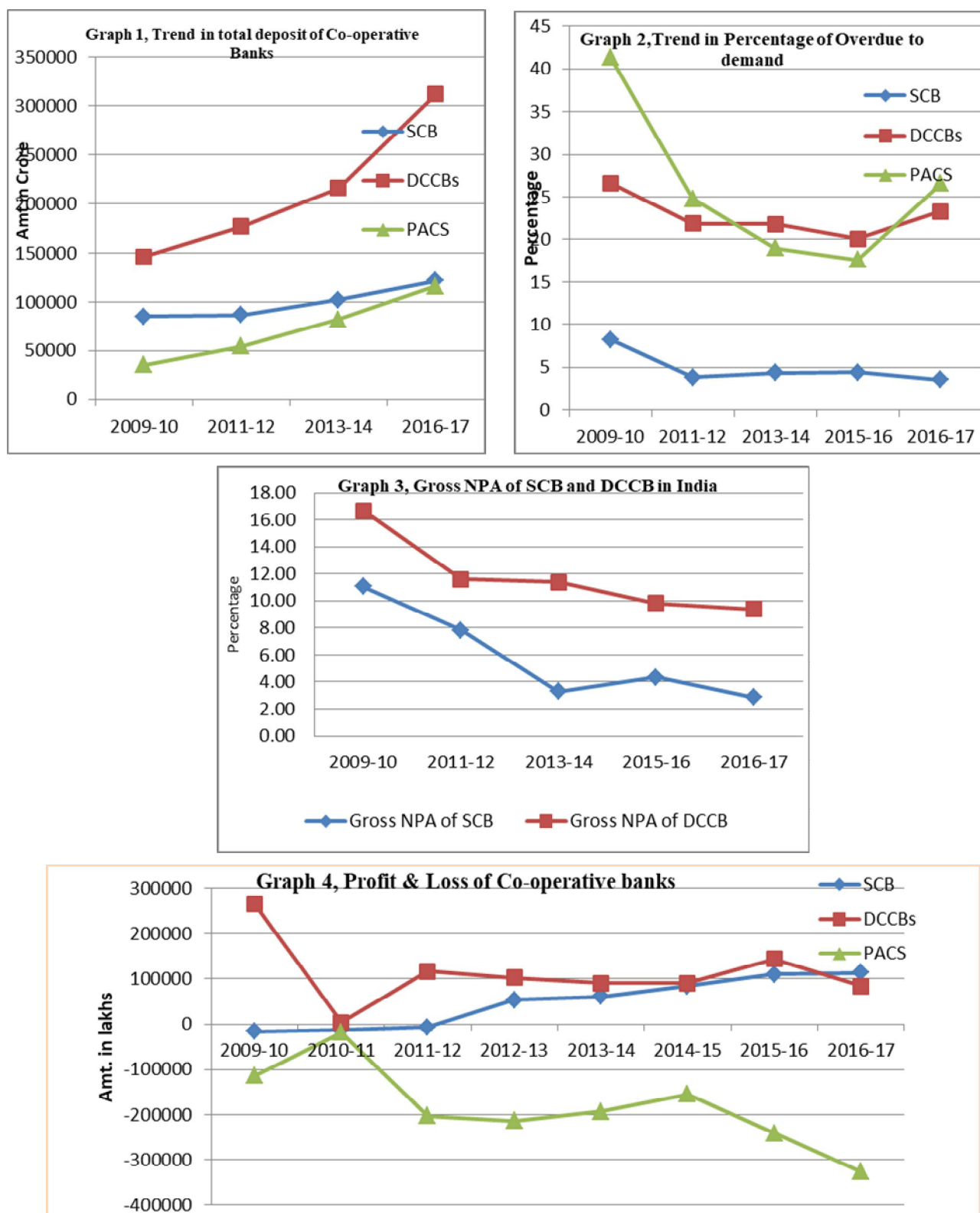
Year	SCB	% Change	DCCBs	% Change	PACS	% Change
2009-10	-16567		265476		-113895.51	
2010-11	-13139	-21%	3752	-99%	-19157.77	-83%
2011-12	-6280	-52%	116080	2994%	-202183.56	955%
2012-13	53682	-955%	102904	-11%	-213035.65	5%
2013-14	61417	14%	90192	-12%	--193423.26	-9%
2014-15	84067	37%	90555	0%	-154896.91	-20%
2015-16	109655	30%	143761	59%	-240047.96	55%
2016-17	112907	3%	83723	-42%	-326313.23	36%
Average	48217.8		112055.37		-410826.75	
CV	105%		62%		-149%	

Source: Same as table no 1

It is observed from the above table that initially SCBs were in loss with 16567 lakhs in 2009-10 and 6280 lakhs in 2011-12. But after 2012-13 SCB were getting continuously profit with 53682 lakhs in 2012-13 which increased to 112907 lakhs in 2016-17.

In case of DCCBs, profit has fluctuated during study period. The value of coefficient of variance of profit and loss profit was 105%, 62% and -149% of SCB, DCCB and PACS respectively. The value of coefficient of variance of profit and loss profit of PACS was -149% due to continuously they were in losses. The value of coefficient of variance of profit and loss profit of DCCB was 62 % which indicates less consistency of the data as compared to SCB and PACS.

Graphical presentation of some variables of Co-operative Banks



FINDINGS AND PROBLEMS

1. It was found from the study the number of branches SCB has increased from 1015 in 2010-11 to 1197 in 2016-17. The CAGR is found of SCB with 2 % which is more than DCCB and PACS during study period.
2. It is observed that SCB were succeed to decline the ratio of Overdue to Demand from 8.2 % to 3.56 % from 2009-10- to 2016-17. But DCCBs and PACS were having more ratio of overdue to demand which ranges 20.08 to 27.37 and 17.60 to 41.36 respectively.
3. Employee productivity is less found in DCCBs and PACS as compared to SCB

4. Percentage of Overdue to Demand of SCBs did tend to decline from 8.2 percent to 3.56 percent during study period. Percentage of Overdue to Demand was found more which ranges 20.08 to 27.37 of DCCBs and 17.60 to 41.36 of PACS which is not good for them to survive
5. SCBs have succeeded to reduce its NPA from 11.06 percent to 2.85 percent under study period. In case of DCCBs and PACS NPA of was still high. It shows the financial condition of them is not good.
6. Initially SCBs were in loss with 16567 lakhs in 2009-10 and loss with 6280 lakhs in 2011-12 but after 2012-13 SCB were continuously getting profit with average profit of Rs. 48217.8 lakhs under study period. In case of DCCBs was continuously earning profit with less co-efficient of variation 62 % during study period. The worst situation was found of PACS regarding profit & loss; The PACS were in losses continuously with minus co-efficient of variation 149 percent.
7. Co-operative banks are mostly depend on others like SCB borrow from RBI and NABARD, government & commercial, DCCBs are heavily depend on refinancing from SCBs, NABARD, Govt. and Commercial banks etc. and PACS depend on refinancing from DCCBs, govt. They are not independent entity for resources.

SUGGESTIONS TO IMPROVE FINANCIAL POSITION:

DCCB and PACS should expand the branches of in rural area. As the CAGR of DCCB and PACS in terms of number of branches is only 1 percent during study period. In order to increase the productivity per employee, it is suggested that there is need to provide training to the staff. In order to improve the branch efficiency of the branches of Co-operative bank, they should use the high level of computerization, need to provide advanced facilities and services to people like online banking, mobile banking, ATM services, E-Com services, 24x7 facilities like cash deposit, Passbook printing, it will help to increase the business. There should be transparent and effective relationship between these Co-operative banks In order to increase the profitability they should focus on recovery, reduce their operating expense, and interest on deposit and management cost etc. It is observed that NPA of these banks are higher and even recovery performance of DCCBs is poor. Poor recovery of advances affected their business so adequate and timely recovery of loan is required for the sound functioning especially of DCCBs and PACS

Thus, Co-operative banks are very important in Indian financial system. They play significant role in the social and economic development and upliftment of rural economy in India. They are life line of the rural economy. The problem faced by co-operative banks are numerous but the government should give support them because they have potential to solve these problems

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USE OF ARTIFICIAL INTELLIGENCE TECHNOLOGY FOR MANAGEMENT OF INDIA'S COASTAL SECURITY

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ABSTRACT

India has a long coastline and large number of island territories entitling her vast coastal sea areas for the purpose of exploring and exploiting, conserving and managing ocean resources like fishing, ocean mining, drilling for oil and gas etc. Further, India is largely dependent on maritime trade for her development and prosperity. However, changing maritime threat scenario more so with the increase in the incidents of maritime terrorism has made the task of ensuring security of vital coastal installations, economic activities, coastal population etc a big challenge for its National security. The sheer size of India's maritime domain, presence of numerous stakeholders and increasing trend of use of sea by the transnational terrorists for their activities makes the task of protection of coastal areas complex and difficult. Physical guarding of vast coastline like the land border is not viable. Similarly keeping surveillance over such vast areas is a equally challenging task. Advances in Artificial Technology (AI) has its effects being felt in enabling new military capabilities by enhancing capabilities across the spectrum ranging from intelligence, surveillance, and reconnaissance to offensive/defensive measures. Thus the innovative use of artificial intelligence technology can bring a big positive change in the management of India's Coastal Security.

INTRODUCTION

Artificial Intelligence (AI) is becoming a vital part of modern warfare. Highly advanced AI systems can be used for numerous military applications. Advanced Countries like USA and China are increasing their investments in AI technology as a major strategy to enhance national security. India has also been considering use of Artificial Intelligence (AI) for its national security. It has been reported in media in 2018 that the Government has constituted Artificial Intelligence Task Force led by Tata Son's Chairman in February 2018 to study the strategic implications of AI in national security perspective and in global context. The study group has submitted the report and accordingly a statement was also issued highlighting that AI is essentially a dual use technology and has the potential to have transformative impact on national security with its capability to provide military superiority. Coastal Security is one such area where AI has potential to have significant effect in enhancing capability of security forces in domain awareness as well as response mechanism.

Coastal Security has been in focus of attention for a decade post 26/11 terrorist attacks. The very basis of emphasis being given to secure our coasts has been its vulnerability to terrorist attack in the contemporary time. However the task of securing coastal areas is humongous because of its size and other constituents. India has vast coastline of 7517 km of which, the mainland coastline is 5423 km and the Island territories coastline is 2094 km. It has 1197 island territories located in the Arabian Sea and in the Bay of Bengal. Its vast coastline is studded with vital industrial hubs, large coastal population, 13 major ports, 176 minor ports and a huge Exclusive Economic Zone (EEZ) measuring over 2 million Sq Km. Further, Indian coasts are prosperous and home to large and growing proportion of the Indian population. Around 1/5th of the Indian population live along the coast. Three of the four metro cities are located along the Indian Coastline.

Further, India's peace and prosperity is today inextricably linked to her commerce and economic boom. Approximately 95% of the country's trade by volume and 70% by value are transported through sea. India's economy has been growing at a rate of 7- 8% and is envisaged to grow in double digits in the coming years. Sustained economic growth as envisaged would also result in substantial increase in the shipping trade in terms of volume as well as value. This is feasible only in an environment which does not pose any kind of threat to free movement of shipping. However, 26/11 type terrorist attack has shown vulnerability of coastal areas in the contemporary time. Ten terrorists from Lashkar-e-Taiba reached Mumbai using the sea route and carried out 12 attacks across the city, killing as many as 159 people and fatally wounding more than 200. This incident has once again provided opportunity to review the state of security of India's coastal areas.

Coastal Security Threats and Challenges

Sea has always been a lawless domain and even today it is barely policed. As a result, transnational terrorists see the potential of using the maritime spheres in a big way for their activities in the coming days. Potential of using maritime shipping and fishing activities in the coastal waters to conceal weapons or agents or to provide funding to support their operations have come to light and is going to only increase in the days ahead. Cases

have also been reported where in acts of terrorism seek to cause economic losses, human casualties and environmental damage. Such acts of terrorism often have not only national but international ramifications. Incidents such as Limburg bombing, in Oct 2002 and the dense piracy activities off Somalia coast have clearly demonstrated that the International shipping is increasingly becoming vulnerable. Terrorists are also becoming emboldened in using sea for their nefarious activities and rise of terrorist activities over sea is clear indication of the same. Further, Coastal environment is very dynamic in nature and thereby poses a very complex scenario to deal with.

The major challenges in dealing with the dynamic nature of maritime environment are to detect, identify and react as soon as possible whenever a threat is detected. It is thus important to be aware of developing security scenario at all times. All this would require availability of information concerning presence of vessels along with other relevant details, intelligence inputs, presence of own assets in the vicinity in the area which can be directed to neutralise emerging threats. Dense and unregulated fishing activities in our waters make the task of identifying unwanted elements that have merged amongst them very difficult. Identity documents carried by fishermen are varied and suspect and thus advantageous for non-state actors or terrorist.

Another important challenge is integration of large number of stakeholders of coastal security architecture like Navy, Coast Guard, Marine Police, State Administration, DG Shipping, Customs, Fisheries, Ports, Immigration authorities, merchant ships, warships, fishing vessels, Dhows, trawlers, etc.

Keeping such a vast coastline safe and secure is essential to facilitate voluminous sea trade and other economic activities. However, the task of managing security over such vast coastal areas is humongous. One needs comprehensive security management strategies and solutions that adapt to and respond in real time.

Key Elements of Coastal Security Management

Intelligence, surveillance, reconnaissance and response capability are the main constituents of coastal security management. A classical security management process would involve collection of information, analysis of information, identification of threat, dissemination of information to concerned agencies, directing security forces to neutralise the threat envisaged and its constant monitoring till the threat has been neutralised. Today, all these activities can be easily facilitated in quick time with the help of advanced technology. Artificial Intelligence is the latest technology and is a rapidly growing field of technological development. AI would potentially have significant implications in enhancing coastal security. Advances made in AI technology provide opportunities for their innovative use in enhancing intelligence, surveillance, identification, reconnaissance and offensive/defensive response which is so vital in coastal security environment.

What is Artificial Intelligence?

Artificial Intelligence is a subfield of computer science and is seen as an attempt to model aspects of human thought on computers. It can be any artificial system that performs tasks under varying and unpredictable circumstances, without significant human oversight. It is a system which may solve tasks requiring human like perception, cognition, planning, learning, communication or physical action. It has number of unique characteristics that make it an important technology in security arena like image recognition algorithms which can be trained to recognise terrorist activities in full motion video captured by UAVs and omni use technology which provides it potential to be integrated into virtually everything. An ideal AI system is envisaged to think like humans, thinks rationally, acts like humans and acts rationally.

AI is considered to be particularly useful in intelligence as it can facilitate analysis of large sets of data made available. Advanced countries like USA, has initiated Project Maven whose phase I involves automatic intelligence processing in which the project team is incorporating computer vision and machine algorithms into intelligence collection cells that would scan through the remotely piloted aircraft footage and automatically identify hostile activity for targeting. It is intended to automate the work of human analysts who spent long hours for deciphering actionable intelligence and thereby make the process more efficient so that timely decisions can be arrived at to neutralise the threat.

Applications of AI in Military Warfare

Applications of AI in military has seen significant growth from the beginning of 21st century because of its obvious advantage in terms reducing the risk of loss of life, enhancing overall efficiency, handling bulk of information, enabling speedy analysis, making automatic response, etc. Most of the advanced nations have been increasingly using AI to enhance their military capabilities in terms of situational awareness, Command and Control, communications, force readiness, intelligence, and data analysis.

Large volumes of data are being collected in order to generate situational awareness. AI systems could be used to combine data from multiple intelligence sources and prompt operators to items of interest. AI systems also could be used to generate tailored spoofing attacks to counter such sensors and processors. Thus AI-enabled sensors and processing could help make better sense of that information.

Command and Control is a very important aspect of military warfare. Towards this, AI can help in processing of information faster and make better understanding of information obtained in a rapidly changing environment for the military leaders. AI may be used to fuse data from sensors in all to create a single source of information for decision makers. Through automation, orders can be relayed to their forces faster and more precisely. AI algorithms may also provide with probable courses of action based on real time analysis of battle space, which could enable faster adaptation to unfolding events.

AI may be used to any identify break in communication links caused by an adversary and immediately find alternative means to distribute information which is very critical in military warfare..

Another use of AI will be to help in better understanding of readiness of own forces. By analyzing large amounts of data, AI systems may be able to predict stress on the force in terms of men as well as machine like when equipment requires maintenance; when programs are likely to face schedule delays; and when service members are likely to suffer degraded performance or physical or psychological injuries. Such potential of AI would help military leaders to improve the readiness of their own forces.

Collection of information from numerous sources like smart devices, the Internet, human intelligence, videos, photographs, etc. would be impossible for humans to manually process and understand. AI tools can help analyze connections between data, point out the suspicious activity, identify trends, fuse disparate elements of data, map networks, and finally predict future behaviour. Thus, AI tools would greatly enhance capability in obtaining actionable intelligence.

AI also has tremendous potential value in data analysis. AI systems can be used to track and analyze large amounts of data – including open-source data, and also look for indications and warning of suspicious activity. Anomaly detection can help find terrorists, clandestine agents, or indications and warning of potential enemy military activity. AI-based speech-to-text and translation services could greatly increase the scale of processing audio, video, and text-based foreign language information.

Usage of AI by USA for Homeland Security

USA is known to use AI extensively in aid of their Homeland Security. USA has been using AI primarily for collecting, sorting, and interpreting and for better decision making. Some of the applications of advancement in AI known to be used by the Department of Homeland Security, which is akin to our Coastal Security, in numerous ways.

Use of artificial intelligence to analyze voices to build out their physical appearances is being used by the US Department of Homeland Security (DHS). This has helped in forensically addressing false distress signals. Similarly, DHS is known to be making use of open source data from the Transportation Security Administration available to develop better algorithms to evaluate passenger luggage for illicit and dangerous item.

US Coast Guard is the lead agency primarily responsible for Homeland Security. However, its presence at every mile or inspect every container is not feasible. AI systems in combination with UAVs and ground robotics, have aided Homeland Security in monitoring borders through advances in automated surveillance and anomaly detection.

USA is also known to use AI Systems that monitor human emotional expression and behavior as an aid in recognizing humans that appear nervous or are acting oddly, to identify personnel trying to sneak into USA. Thus AI is serving as a “sixth sense” at border crossings.

AI systems used for game theory/risk assessment are considered valuable in determining where best to apply scarce resources and how to counter adaptive adversaries, such as drug traffickers

Relevance of AI for India’s Coastal Security

India’s coastal domain offers a vast and largely unsecured medium for exploitation by state as well as non-state actors. The events of 26/11 have adequately highlighted the vulnerability of the coastal domain. Post 26/11, India has taken up numerous steps towards enhancing the coastal security management. Most of the coastal security architecture envisaged is very similar to USA. Some of the major steps taken to enhance coastal security have been to incorporate advanced technology which can be utilized for monitoring the coastline by

installing chain of radars all along the coast and gathering required intelligence/information with AIS, signal monitoring devices etc. Further, efforts have been made to issue biometric cards to fishermen, fitment of transponders on fishing boats, implementation of colour codes for the fishing boats, etc. for ease of identification. Information available from such measures needs to be analysed to obtain actionable information. Sheer size of the coastal domain with offshore developmental activities, dense shipping and fishing and presence of International shipping Lane make the task of understanding of the coastal domain very complex. Towards this, Artificial Intelligence technology can be of immense value as it has potential to exponentially enhance important constituents of coastal security management such as threat monitoring, situational awareness, data collection, data information processing, intelligence analysis, use of unmanned surface vehicles, unmanned aerial vehicles, etc.

CONCLUSION

Adopting AI tools in defence enhances the processing and utilization of data which in turn improves the speed of decision-making considered so critical in modern warfare. Indian government has rightly taken initiative of constituting an Artificial Intelligence Task Force of Ministry of Defence on using AI for military superiority. Coastal security being one of the important constituent of National Security provides ample opportunity for induction of AI technology in big way. Coastal Security poses a complex environment with large number of stakeholders actually is in need of AI technology to collate large data from numerous sensors being deployed for surveillance like coastal radar chains, surveillance aircrafts, merchant ships, warships on patrol, Unmanned aerial vehicles, etc., filter, analyse and finally produce actionable intelligence for offensive/defensive action. Use of AI technology would be like a force multiplier and would bring a positive change in management of coastal security in terms of its efficiency and effectiveness. In order to manage the coastal security challenges ahead, India will need to incorporate AI technology for its benefits.

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DETERMINING FACTORS OF SERVICE QUALITY IN RETAIL STORES USING 7A MODEL

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I. INTRODUCTION

Retail industry the third largest sectors and the second largest employment provider in India after agriculture (Zameer, 2011); it plays a significant role to aggregate the productivity across a wide range of goods and services. In India both organised and unorganised retail sector exists, majority of the stake being under unorganised. Organized retailing refers to trading activities undertaken by licensed retailers those who are registered for sales tax, Income tax and it includes the retail chains, corporate backed hyper market and directly owned large retail business, comprises of shopping malls, Multi-storey mall, and huge complexes that offers a large variety of products in terms of quantity and value of money. Survival of fittest & fastest is the rule for today's business game.

To find out customer satisfaction the determinants of service quality to be constructed and strategies to developed to diminish the gap between the expectation and perception as much as possible. This research aims to fill this gap by articulating retail service quality, its dimensions and proposing a service quality measure which leads to a measurable customer Experience.

Several determinants of service quality leads to customer experience: These include the social environment, the service interface, the retail atmosphere, the assortment, the price and promotions (including loyalty programs). Importantly, it is also known that in today's multi-channel environment customers' experiences in one channel (e.g., a store) may be affected by experiences in other channels (e.g., the Internet) as well (e.g., Konus, Verhoef, and Neslin 2008; Neslin et al. 2006; van Birgelen, de Jong, and de Ruyter 2006).

The 7 A's Approach : The 7 A's approach which is designed by Dr. Nagendra Chaudary, is an effective tool to understand the Customer Experience in an improved way by measuring the service quality.

Access: Accessibility to any retail store is of paramount importance.

Architecture: The Look and feel of the store is another significant point.

Assortment: The customer comes to any retail outlet for products or by services.

Assistance: The sales assistants are an all-important touch points for customer service.

Alignment: The alignment incorporates tactical fit between store design, visual merchandise, sales personnel assistance, facilities etc.

Augmentation: Augmentation usually endeavors going beyond to give the customers a sense of belonging.

Association Value: It comes from customer taking pride in being the part of the community. Exclusivity is the key in creating the association value.

The primary objectives of this study include exploring the emergence, role and development of Determinants and Components of Service Quality and its role in retaining the customer for the retail stores, by examining the existing as well as future requirement of service infrastructure and the promotion and marketing of organised retail stores as an important retailing system in Indian Scenario. Research has always been concentrated in measuring service quality or SERVQUAL for customer services. Every marketing effort is directed to be customer focused and hence it is imperative that initiatives result in higher customer retention levels. This research tries to relate promotion focused value added services in large retail outlets to assess service quality. It uses the standard SERVQUAL framework with topic specific quality dimensions to identify the gap between customers' service expectations to and their perceptions towards service quality. Service quality in the retail sector is atypical as retail stores offer a mix of services and products and hence it includes the measure of both service quality and product quality. What most researchers have a consensus on is that SERVQUAL is a crucial element in assessing customer satisfaction even when the offering involved a combination of products and services.

II. REVIEW OF LITERATURE

Various psychological and behavioral studies (Anderson, 1995; Brakus, 2001; Fiske and Taylor, 1991; Goleman, 1995; Schmitt and Simonson, 1997; Tavassoli, 1998) distinguish three basic systems – sensation, cognition and affect – each with its own structures, principles and mutual interactions. In addition, when

considering a person per se, these studies take into account the set of one's actions, the system of values and beliefs (from which lifestyles and behaviors are derived) and relationships.

To measure customer satisfaction and service quality becomes a main focus for researchers. (e.g., Parasuraman, Zeithaml, and Berry 1988; Verhoef, Langerak, and Donkers 2007).

Parasuraman et al., (1985), developed a model of service quality after carrying out a study on four service settings: retail banking, credit card services, repair and maintenance of electrical appliances, and long-distance telephone services. His SERVQUAL model suggests that service quality as a difference between a customer's expectations of service offering and the customer's perceptions of the service received, (Parasuraman et al., (1988).) This makes it an attitude measure.

The SERVQUAL model was made of ten dimensions of service quality when created; tangibles, reliability, responsiveness, communication, credibility, security, competence, courtesy, understanding the customer, and access, (Parasuraman et al., (1985, p.47-48) but later on these dimensions were reduced to five because some dimensions were overlapping (communication, credibility, security, competence, courtesy, understanding customers and access) and the dimensions maintained by them were *Tangibles* (physical facilities, equipment's, and staff appearance), *Reliability* (ability to perform the promised service dependably and accurately), *Responsiveness* (willingness to help customers and provide prompt service; *Assurance*-(knowledge and courtesy of employees and their ability to inspire trust and confidence) and *Empathy* (caring, individual attention the firm provides its customers) (Parasuraman et al., 1988, p.23).

Their study showed that the key to ensure good service quality is meeting what consumers expect from the service and that judgement of high and low service quality depend on how consumers perceive the actual performance in the context of what they expected.

Parasuraman (1990) in his study on superior customer service and marketing excellence discussed the meaning and measurement of service quality and offered managerial guidelines for delivering superior service by invoking key insights from a multi-year, multi sector stream of research on customer service. He developed a model called SERVQUAL, which consisted of five dimensions like reliability, responsiveness, assurance, empathy and tangibles. He concluded that reliability to be the most important of the five SERVQUAL dimensions. He also concluded that a company should effectively blend external marketing with customer service to deliver superior service to customers.

Parasuraman *et al.* defined expectations as “desires or wants of consumers, i.e. what they feel a service provider *should* offer rather than *would* offer” (emphasis added). The expectations component was designed to measure “customers’ normative expectations” (Parasuraman *et al.*, 1990), and is “similar to the ideal standard in the customer satisfaction/dissatisfaction literature” (Zeithaml *et al.*, 1991).

Dr.M.N.Malliswari (2007) in her study “Emerging trends & strategies in Indian retailing”, she found that the customers are influenced by the west due to their exposure to media. The social networking sites and internet as a whole has changed the shopping pattern and behaviour of the customers

III. RESEARCH DESIGN AND METHODOLOGY

The data was collected from both primary and secondary sources as applicable. The secondary data was collected from relevant books, newspapers, journals, etc. From the primary sources, a diatic Field Study - Survey method was used to obtain the required information from the user to obtain the customer's expectations and the actual service obtained to capture the service quality by finding answer to different questions to record the customers' feelings.

To determine the quality dimensions of these stores, a questionnaire survey was conducted. The sample was selected from multiple retail stores located in different areas of the city Thane. Simple random sampling was used to select the sample of 300 retail shoppers visiting retail stores of the city. The structured questionnaire is developed based on the literature review and a pilot survey which was conducted in the third quarter of 2018. Thirty-one variables beside the demographic variables are considered for the study. The questionnaire is designed using five-point Likert scale, where 1 meant Poor quality and 5 meant excellent with a particular risk source. The Statistical Package for Social Sciences (SPSS version 20.0) was used for data analysis purpose.

The scores were further analysed using descriptive statistics and inferential statistical Test. Factor analysis was done to find out the most relevant factors in analysing samples to draw inferences about the population.

IV. DATA ANALYSIS AND FINDINGS

The profile of the respondents is listed in Table 1.

	Frequency	Percent	Cumulative %
Male	146	48.7	48.7
Female	154	51.3	100.0
Total	300	100.0	

Age	Frequency	%	Cumulative %
15-20	33	4.3	11.0
21-25	91	30.4	41.3
26-30	67	22.3	63.7
35-40	37	12.3	76.0
40 & above	6	2.0	78.0
Total	300	100.0	

Out of the complete questionnaires filled in 48.7% were males and 51.3% females. The percentage difference between male and female respondents is less; due to the male-female ratio in urban India being trivial. 20.3% of the respondents were in the age group of 15–20, 21.1% were in between 20–25 age groups, 21.9% of them were in between the age group of 25–30, 19.8% were in the 30–35 age group and 16.9% of the respondents were above 35 age group. The percentage of the second and third age group amounts to 43%, which is due to higher percentage of young and adult population in India.

According to the opinion of 300 retail shoppers regarding the visiting retail stores, the following descriptive statistics is presented in Table 2.1 & 2.2

For reliability assessment of the scale Cronbach's alpha is used. Reliability as we know is a measure of extend to which the scale produces consistent results, if repeated measurements are made. The Cronbach's alpha varies from 0 to 1 and value less than 0.6 indicates unsatisfactory internal consistency reliability (Malhotra, 2007). The calculated value of Cronbach's alpha is 0.930 shows the scale reliability. Next the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy is calculated. KMO is an index used to find out applicability of factor analysis. A high value between 0.5 to 1.0 indicates that factor analysis can be used. The calculated value of KMO is 0.930 indicates we can apply factor analysis.

2.1 Reliability Statistics

Cronbach's Alpha	No of Items
.930	31

2.2 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.930
Bartlett's Test of Sphericity	Approx. Chi-Square	3383.082
	Df	465
	Sig.	.000

Factor analysis was used to remove the highly correlated variables from the survey data and to reduce the number of variables into definite number of dimensions. The factor analysis is performed using the principal component extraction method with varimax rotation. In the initial application, the numbers of variables were reduced from 31 to 29. In the second application these 29 variables were classified under six dimensions based on their factor loading score. The sorted rotated values of factor loading with minimum value of 0.5 or more were considered. Factor loading represents how much a factor explains a variable. High loading indicates that the factor strongly influences the variable. Five components having factor loading less than 0.4 were dropped. Based on the results of factor analysis, the variables were classified into six dimensions, which were suitably named. The dimensions and the variables are shown in the Table 3.

V. OUTCOMES & CONCLUSIONS

This study aimed to explore and identify and measure the retail service quality construct in India. The items that load on factors provide clues about the composition of these factors. The process of pattern making via exploring commonness accorded meaningful expressions accorded to these factors.

The analysis of the study identified six dimensions viz., Assortment, Assistance, Access, Architecture, Augmentation & Alignment and value as perceived to be important by Indian customers. The study also measures the overall satisfaction of the customer regarding the Service Quality. Augmentation emerge as the most influencing variable affecting the overall Quality. This is followed by Access and assistance of the employees of the store. The store offering incentive to share the experience is the least contributing factor. This is because in India generally retail stores do not offer much promotions to the customers. This study may be important for international retailers planning to enter into the Indian market. This becomes more important as Government of India is planning to open foreign direct investment in retail sector to fuel the growth. Again, this study can be extended to several other retail segments and generic factors for Indian retail service quality can be discovered.

VI. LIMITATIONS & FURTHER SCOPE

The findings of this study proposes to give an insight to the Indian retail service quality, but has of some of its limitations. First, this study was restricted to some major retail stores in Thane city. The results obtained may not be generalisable to the country as a whole. Future research needs to extrapolate the results to the other retail formats, product categories and Mumbai & other cities. Secondly, the small sample size of 300 may also be error-prone. Future research in Service Quality should examine a larger sample size which would enable more reliable analysis across different demography of respondents. Third, the instrument used for the study included all the 31 variables proposed by Nagendra, this limits the inclusion of other variables which may be of important in Indian context. In future research, more construct and enhanced instruments must be utilised for the study. The research will be restricted to survey of Service Quality Components and determinants of select organised retail stores of Thane City only. The geographical area for sampling is intended to be all zones and the strata wise sampling will be decided later.

- Since the research is based on customers of organised Retail stores, may be a simple questionnaire is required to be prepared to get information from all.
- Since the population of Thane organised Retail Store customers is very large gathering information may not be an easy task. A pilot study is needed to ascertain the responsiveness of the samples.
- Customer's personal implications may also have an impact on the survey.

One of the main limitations of the study is expected to be the sample. It is quite possible that customers may not express the actual expectation and the perceived service they are getting, thus having a suppressive effect on the study.

Table-3: Factors influencing Customer Service Quality

Factor	Factor interpretation (% of variance)	Loading	Variables included in the factor
F1	32.723 (Augmentation)	0.658 (26) 0.607 (1) 0.586 (11) 0.585 (2) 0.546 (27) 0.479 (24) 0.459(31) 0.446(16) 0.445(17)	The way I am treated every other time I visit the store (AUV) Location of the store is (ACL) The prices of the products sold in the outlet (ASP) The approach & infrastructure to reach store (ACA) The store assistants remember my preferences (AUP) The coordination between store manager& assistant(ALC) The overall shopping experience at this store (AVSE) The product knowledge of the sales assistant (ASTK) Communication skills of the sales assistant (ASTC)

F2	4.976 (Access)	0.680 (10) 0.599 (5) 0.557 (21) 0.527 (3) 0.464 (19) 0.452(28) 0.418(30)	The way I am treated every other time I visit the store (AUV) Location of the store is (ACL) The prices of the products sold in the outlet (ASP) The approach & infrastructure to reach store (ACA) The store assistants remember my preferences (AUP) The frequency of new product launches & promotion (AUF) The incentive for me to share my shopping experience (AVI)
F3	4.138 (Assistance)	0.694 (22) 0.650 (15) 0.609 (12) 0.500 (4) 0.488 (18)	The consistency of the sales assistant's performance (ASTP) The cleanliness across the product category shelves (ASC) The quality of products sold in outlet (ASQ) The location map for the store location (ACM) The willingness of the sales assistants to assist (ASTW)
F4	4.045 (Assortment)	0.654 (14) 0.586 (23) 0.660 (25)	The product varieties depth and the width (ASV) The way everything within the store - are aligned (ALA) The way brand image, brand appeal & experience (ALB)
F5	3.788 (Alignment)	0.667 (7) 0.667 (9) 0.525 (13)	The interiors & the other aesthetics' (ARI) The general upkeep of the store environs (ARC) Product category (ASPC)
F6	3.534 (Architecture)	0.670 (7) 0.488 (9)	The ergonomics (the physical appearance of goods (ARE) The aroma experience (ARA)

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WOMEN ENTREPRENEURSHIP IN NEW ERA: OPPORTUNITIES AND CHALLENGES

Dr. Pallavi Shah

ABSTRACT

Entrepreneurship serves as one of the important part of economic development of the country. It is one of the largest source for capital accumulation. In fact economic growth and development is the result of the efforts taken by the entrepreneurs. Similarly entrepreneurs can enrich the economic growth by their actions, managerial skills and decisions. Now many have begun to realize that for achieving the goal of economic development, it is obligatory to promote entrepreneurship both qualitatively and quantitatively in the country. Only active and enthusiastic entrepreneurs fully discover the potentialities of the country's available resources – labour, technology and capital.

Keywords: Women entrepreneurship, challenges entrepreneurship development,

INTRODUCTION

In under developed economies the need of entrepreneurship is been recognized as the major and prominent factor of growth and development of the economy. As the number of entrepreneurs increasing in an economy the growth rate is high, reduction of employment and it also helps in the economic growth, prospect and development of the country. Entrepreneurship serves as a facilitator of economic development of the country. It is one of the largest sources for capital accumulation and sources of fund. In fact economic growth is the outcome and result of the efforts taken by the entrepreneurs. Similarly entrepreneurs can dictate the economic growth by their actions and decision making skills. Now many have begun to recognise that for achieving the goal of economic development, it is necessary to promote aspect of entrepreneurship both qualitatively and quantitatively in the country. Only active and enthusiastic entrepreneurs can fully explore the potentialities of the country's available resources – labour, technology and capital on larger extent which leads better and optimum utilisation of resources.

Key Elements of Entrepreneurship:

- Innovation
- Risk taking
- Vision
- Organisational skill
- Optimistic
- Technical & communication skill
- Qualitative Decision making ability

WOMEN ENTREPRENEURSHIP

Government of India has defined women entrepreneur is “ an enterprise owned and controlled by a women having a minimum financial interest of 51% of the capital and giving at least 51% of the employment spawned in the enterprise to women”.

In most countries, regions and sectors, the mainstream of business owner/managers are male (from 65% to 75%). However, there is increasing indication that more and more women are becoming interested in small business ownership and actually starting up in business. In addition, rates of self-employment among women are increasing in several gradually in EU countries. Although there are no official data relating businesses to the gender of their owner/manager, there is a good deal of evidence and sign to suggest a significant increase in female entrepreneurship all over the world.

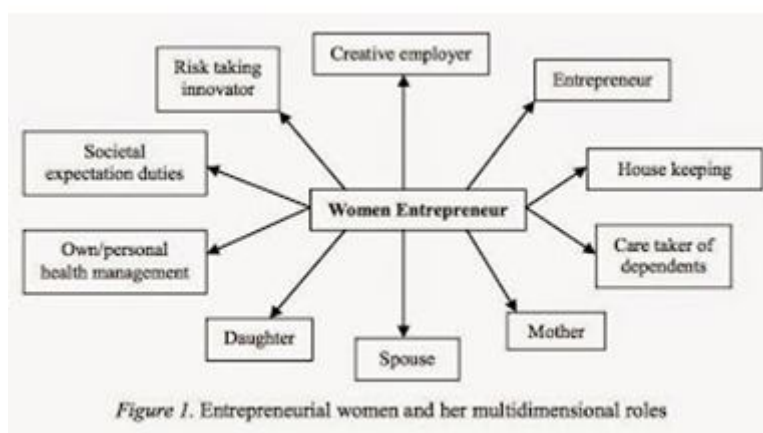
According to the Women's Financial Network, women start businesses at two times more than the rate of men. While women are starting more businesses than men, they find it harder at the outset to grow their businesses and admittance venture capital. "All over the world there is a realization that the best way to challenge poverty and enable the community to improve its quality of life is through social utilisation of poor, especially women into self-help groups. Ever since independence a number of innovative schemes have been thrown for the upliftment of women in our country. Indian government has taken lot of initiatives and efforts to strengthen the institutional rural credit system and development programmes for development and growth of women

entrepreneurship Viewing it in the welfare programmes of Ninth Five Year Plan (1997-2002) and shifting the concept of Development to Empowerment. The Indian government implemented the approach and policies of Self Help Groups (SHGs) to uplift the rural poor women. The empowerment of women through Self Help Groups (SHGs) would generate and lead to benefits not only to the individual woman and women groups but also the families and community as a whole through collective action for development and growth. Most women business owners in Indian organization were either housewives or fresh graduates with no previous experience of running a business, These women business owners were in conventionally women - oriented business like garments, beauty care, and fashion designing, techno based job which either do not require any formalized training or are developed from a hobby or an interest into a business, The classic examples are here like of herbal queen Lady Shehnaz Hussain who started her herbal-based treatment from a relatively small scale. Infact, she started literally from her kitchen domain to a chain of beauty parlors certainty out across the nation and world which change whole scenario of women entraprenuership.

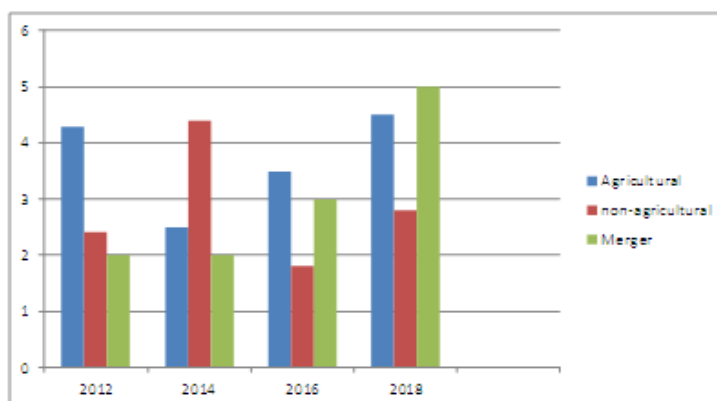
AIMS, OBJECTIVES AND METHODOLOGY

The main objective of the study was to identify the significant issues and problems facing women entrepreneurs (i.e. women running their own businesses), co-entrepreneurs (i.e. female entrepreneurs assisting their spouses) and entrepreneurs from indigenous minorities,. It is a descriptive research work. Secondary data is the source for this study.

ROLE OF WOMEN ENTREPRENEURS



According to Sixth Economic Census released by the Ministry of Statistics and Programme Implementation, women constitute around 14% of the total entrepreneurship i.e. 8.05 million out of the total 58.5 million entrepreneurs, noted the Vice President of India, M. Venkaiah Naidu. Out of this, 2.76 million women constituting 13.3% of women entrepreneurs work in agriculture sector whereas 5.29 million women constituting more than 65% work in non-agriculture sector. The average employment in women-owned enterprises is meager 1.67.



Contribution of women in different sector as per Industrial economic survey 2017-18

Reasons for the rise of women entrepreneurs

- Overall changing perception of entrepreneurship
- Better access of education and training

- Increasing social acceptance of women entrepreneurship at wider level
- Better infrastructure, especially in technology and communication
- Better access to financial requirement
- Rise of Role Models and inspirational factors

CURRENT SENARIO OF WOMEN ENTREPRENEURS

Since the 21st century, the status of women in India has been changing as a result to growing industrialization and urbanization, occasional mobility and social regulation. Over the years, more and more women are going in for higher education, technical and professional education and their proportion in the workforce has also been increased at a larger extent. With the spread of education, knowledge and awareness, women have shifted from the kitchen, handicrafts and traditional cottage industries to non-traditional higher levels of activities. Even the government has laid special prominence on the need for accompanying special entrepreneurial training programs and policies strategies for women to enable them to start their own speculations. Financial institutions and banks have also set up special cells to assist women entrepreneurs, this has rebound the women entrepreneurs on the economic scene in the recent years although many women's entrepreneurship enterprises are still remained a much neglected field. However, for women there are several handicaps to enter into and manage business ownership due to the deeply embedded traditional mind set and strict values of the Indian society. Lets us look at what these obstacles that are faced by women entrepreneurs.

CHALLENGES FACED BY WOMEN ENTREPRENEURS

The problems and constraints experienced by women entrepreneurs have resulted in restricting and inhibited the expansion of women entrepreneurship. The major barriers encountered y women entrepreneurs are displayed in the chart.

1. Financial Challenges

The majority of women business owners have had to rely to a significant extent on self generated finance during the start up period of their business whether its small or Big. Bank loans and grants have only been used in a minority of cases and have usually been accompanied by some form of self generated finance firm. The availability of bank credit appears to increase once businesses become established and a good relationship with the bank has been developed. Banks are reported to have been more approaching in the provision of loans once a business has begun to demonstrate a track record. Because of limited funds, they are not able to stock new materials and spend on advertising.

2. Administrative and regulatory requirements

Somewhere Adminatrive and regulatory skills are not present at required proportion in the women. Problems with administrative and/or regulatory requirements were judged to be major issues of female entrepreneurs. Micro enterprises of all types can experience problems in meeting administrative and regulatory requirements, because of the disproportionate effect of compliance costs on small companies compared with large firms. As a result, it is not surprising that almost half the support organizations specializing in support for female entrepreneurs identified a problem for their clients in this respect. At the same time, with a few exceptions, administrative and regulatory barriers more significant for female owned businesses than for male owned firms of a similar size.

3. Lack of management skills or training

This is a root cause for poor development of women entraprenuership. Women entrepreneurs lacked management skills to a greater scope than small businesses in general, possibly because of their lower propensity to have had previous business experience create complication. Though difficulties in accessing business advice or support appears to be a minor rather than major problem for women entrepreneurs, a significant minority of specialist organizations felt than women are particularly disadvantaged in this respect. Difficulties with language caused problems for their clients or members, with five feeling that women faced specific complications in this respect.

4. Marketing problem

A lack of sales ,marketing knowledge and skills was the most commonly reported problem faced by female entrepreneurs, after finance. The fact that this is a characteristic shared with many other micro enterprises and small firms does not make it any less important to female entrepreneurs. It may be seen as part of a general need to raise the level of management skills and experiences in female owned and other small businesses.

5. Technology challenged

Access to technology and problems with intellectual property protection were regarded as problems for women entrepreneurs. The technical challenges are one of the major issue for the employees in the organisation .the computer skills are a key part of the business. Another firm used computer extensively for word processing, desk top publishing, e-mail and research purposes but saw no value in increasing their use further.

6. Lack of confidence

The lack of confidence is basic hurdle for women entrepreneurship developments women are accepting a subordinate status, as a result they lack confidence of their own capabilities, Even at home, family members do not have much faith in women possessing the abilities of decision-making and skills.

7. Lack of working capital

The lack of working capital factor create complication in raising fund from market. being a women and to do something on their own becomes quite difficult for them because of lack of access to funds as women do not possess any tangible security and credit in the market and the women's are not connected so much to the financial market at extent like a men .before marriage she has to depend on father family and afterwards marriage she has to follow the footsteps of the husband and depend upon him . As such, women do not enjoy the right over the property of any form and they have limited accessibility over external sources of funds, even getting loans from either a bank or financial institution becomes exceedingly difficult and complicated due to lengthy legal formalities and requirements.

8. Limited accessibility

The limited accessibility is the another basic hurdle for women entrepreneurship developments. Due to primary household duties and responsibilities towards her family, her time gets divided between the two worlds handling dual burden . She has reserved timings for work due to which, she is not in a position to travel frequently and be away for longer periods. It also create problem women to perform effectively then the menhus, her mobility is restricted. This also has an implication on business.

9. Male dominated society

The Male dominating nature society is root cause for problem in development of woen entrepreneurship woman is controlled by men in her family as well as business. Often she has to obtain approval from men for almost everything whatever they want to do wther it may be personal or professional. They are not treated as equals. Her freedom is restricted. She always has to consult and get consent of men. Still in society in most of the cases women's are always greeting poor response.

10. Low risk bearing ability

This is so because right from the childhood, her parents take all personal the charge decisions for her and after marriage her husband takes over. She is endangered throughout and thus the risk bearing ability gets reduced. Sometime emotional kind of nature of females create problem for taking risk.

11. Socio-cultural complications

There are so many social and cultural issues in women entrepreneurship .Woman has to perform numerous roles be it familial or social irrespective of her career as working woman or an entrepreneur. In our society, more importance is being given to male child as compared to female child this kind of mentality create problem for growth of women entrepreneurship. This mind-set and approach of the society results in lack of schooling and necessary training for women. As a result this create hurdle for the progress of women and handicap them in the world of work and commercialisation.

SUGGESTIONS

Women entrepreneurs also can explored their perceptions of the types of support that might be most helpful and co-operative aid for them in addressing the issues and problems that they are facing.

- **Financial Support and assistance**

Special schemes should be implemented whereby women can get bank loans at decent conditions and at concessional rate of interest.

- **Child responsibilities must be partially shifted to men's**

More childcare facilities should be provided to fit women entrepreneurs' needs. This would entail extended opening hours or flexible opening hours according to the woman entrepreneur's needs. Instead measures should be taken for fathers to be in the position to take parental leave, and men should be encouraged to take the leave

- **Contribution in Household work**

It should be made easier for women entrepreneurs to get help for their households, and initiatives like the “cheques services” implemented by the Belgian government should be copied. This system would improve the work load of the female entrepreneurs and at the same time decrease the number of unemployed persons.

- **Working time flexibility**

Self-employed women should be encouraged to employ on a part-time or full-time basis at least one person so that they have more time for their family and can take interest in other occupations, actively contribute in decision-making bodies.

- Training, advice or consultancy targeted solely or mainly at women entrepreneurs at largest level..
- Need to have network with other firms to generate business relations and access informal advice from different sources.
- Encouraging and assisting relevant business support initiatives and policies
- Wild Women Entrepreneurs (Wild WE), the leading networking organization for women entrepreneurs, declared today that the organization has entered into a partnership with Ready Talk to help area women enhance their professional development without restrictions.. It is also found that compared to men, women were less concerned with making money and often choose business proprietorship as a result of career disappointment. Secondly, women find entrepreneurship as a tool of meeting their career needs and Independent status in the society.

CONCLUSIONS

In most countries, regions and sectors, the majority of business owner/managers are male (from 65% to 75%) therefore, there is increasing evidence that more and more women are becoming interested and taking initiative in small business ownership and actually starting up their own business and firms. Women are working in this multifaceted world with their hard work and put their efforts very efficiently. The organization scenario gradually changes like a kaleidoscope with every responsibility, accountability and multiple pulls and pushes, which women have faced and came out with success at a greater extent. In addition, rates of self-employment among women are increasing in several countries. Although there are no official statistics and any kind of report work relating businesses to the gender of their owner/manager, there is a good deal of evidence to suggest a significant and important improvement which increase in female entrepreneurship. The government incubation centres, strategies, policies and different schemes can also contribute towards entrepreneurship development. One consequence of this is that women are a relatively new group of entrepreneurs compared with men, which means that they are more likely to run younger businesses in a more effective and efficient way. This in turn has some implications for the problems they face and their ability to deal with them.

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MAKE IN INDIA AND IT'S RELATION WITH INFLOW OF FOREIGN DIRECT INVESTMENT

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ABSTRACT

Foreign Direct Investment (FDI) performs a multidimensional role in the overall development of any country. Most of studies advocate a positive relationship between foreign direct investment and growth of economy. There has been tremendous growth of FDI after the launch of make in India initiative i.e. from Oct 2014 to March 2017 is US \$99. 72 billion. It shows an increase of 62% where manufacturing sector have witnessed a growth of 14% as compared to previous 30 months before launch of make in India initiative. Business entities from various countries like Japan, France, South Korea and China announced that they also intend to endow in India in this make in India scheme. The main goal for the Make in India scheme was to minimize unemployment and increase talent augmentation in various sectors of the economy. Larger inflows of foreign investment will support the economy to achieve a sustainable high path of economic growth. With the continuous increasing trends in GDP, even after demonetization, India has marked its magnetism as one of the fastest growing economies of the world. It is ranking among the top 10 striking destinations for various investments. The present study is focused on the trend and pattern of FDI inflows since launch of make in India initiative using the quantitative data which has been collected from various reports like Reserve Bank of India Database on Indian Economy, database of department of Industrial Policy and Promotion and website of make in India. FDI policy amendments are introduced to bring ease of doing business and gear up the pace of foreign investment in India.

Keywords: Foreign Direct Investment, Make in India initiative, fastest growing economy.

INTRODUCTION

India is an attractive hub for Foreign direct investment (FDI) in the manufacturing sector. FDI is a major source of non-debt financial resource for the economic development of India. Foreign companies invest in India to take advantage of relatively lower wages, special investment privileges such as tax exemptions, etc. Foreign Direct Investment has been able to expand its roots in the country and is still the prospects of investment are higher. The business environment in India has become investor friendly because of the various policies formed by the present government that are promising in this regard. Just months after taking office in 2014, Indian Prime Minister Narendra Modi, standing below an immense logo of a lion, unveiled an economic vision for India to be a global manufacturing power by launching Make in India Initiative globally in September, 2014 He claimed that his strong leadership would usher in economic revival by increasing the share of manufacturing in the country's gross domestic product (GDP) to 25% by 2025, and creating 100 million new jobs by 2022.

It is being led by the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India. The Make in India programme is very important for the economic growth of India as it aims at utilising the existing Indian talent base, creating additional employment opportunities and empowering secondary and tertiary sector. The programme also aims at improving India's rank on the Ease of Doing Business index by eliminating the unnecessary laws and regulations, making bureaucratic processes easier, making the government more transparent, responsive and accountable. The focus of Make in India programme is on 25 sectors. These include: automobiles, aviation, chemicals, IT & BPM, pharmaceuticals, construction, defence manufacturing, electrical machinery, food processing, textiles and garments, ports, leather, media and entertainment, wellness, mining, tourism and hospitality, railways, automobile components, renewable energy, biotechnology, space, thermal power, roads and highways and electronics systems.

The programme aims to foster innovation, enhance skill development, protect intellectual property and build best in class manufacturing infrastructure in the country.

REVIEW OF LITERATURE

A good number of researches have been conducted on make in India initiative impact on FDI. The study is based on secondary data. The reviews of some important scholars are given below.

Swaminathan (2014)

Stated that the central government came to power by promising rapid economic growth that delivers millions of jobs. To achieve this, the government has devised to "Make in India" policy. Launched with a blaze of publicity, it seeks to make India a manufacturing giant and attract investors. It aims to raise the share of manufacturing in GDP from the current 13- 14% to 25%. The government is envious of the rise of China as a manufacturing giant. India has lagged far behind for decades, and the government wants India to catch up.

Gurcharan Das (2015)

Expressed that “Make in India” programmed to revive manufacturing and deliver a million new jobs that are needed each month. But the problem is that manufacturing is precisely the sector that has historically let India down.

Sridhar and Swatim (2015)

Analysed that the past 12 months records on foreign investments inflow into India show that the make in India initiative is indeed working. The Government of India has received investment proposals of over Rs.1,10,000 crore (US\$16.56 billion) in the last 12 months from a host of companies across industries. India has become one of the most attractive destinations for investments in the manufacturing sector. About 25% of smart phones shipped in the country in the April-June quarter of 2015 were made in India, up from about 20% the previous quarter.

P. Manchandan and R. Gaur (2016)

Revealed that there has been significant increase in the FDI inflows across various sectors, from different countries, in different time periods after the introduction of make in India initiative. The government is moving ahead with „Make in India“ India initiative by relaxing the sectors which were earlier not in the purview of New FDI policy. This will help significantly in ensuring balanced growth across various sectors throughout the country.

K. Narayana Swamy et.al (2016)

Observed that “Make in India” initiatives will strengthen India’s manufacturing sector. The campaign has been concentrating to fulfil the purpose of job creation, enforcement to secondary and tertiary sector, boosting the national economy, converting India to a self-reliant country and to give the Indian economy global recognition.

Irshad. A Mir (2017)

In his paper study that ‘Make in India’ has helped the Indian economy grow and the government continues to encourage more investments by offering certain fiscal incentives to the investors. India is expected to grow even faster with certain worth admiring initiatives such as GST bill, 7th pay commission, etc. Recent demonetization step will take India decades ahead to earn foreign investors trust in Indian market. Transport connectivity, skilled human resource, energy resources etc. are the areas which are to be taken up to the international standard level to convince more manufacturers to India. Internal peace and political stability will also play good role to attract more investments.

Rajeshwari M. Shettar(2017)

In her study highlighted that “The Make in India” campaign helps to place India on the world map as a manufacturing hub and give global recognition to the Indian economy. India’s ranking among the world’s 10 largest manufacturing countries has improved by three places to sixth position in the coming years. There is a need to focus on electronic manufacturing and plans to set up electronic clusters across various towns and cities. The tax reliefs given to start ups and MSME’s will significantly play important role in sustainable employment in the design led manufacturing sector.

Objective of the study

- To study the efforts of government of India in correlation with foreign direct investment.
- To study the trend and pattern of FDI inflows since launch of make in India initiative.
- To study the policy reforms and developments initiated by government of India for its successful implementation

RESEARCH METHODOLOGY

In the present study to analyze the growth pattern of FDI in India taking Make in India Launch as the major case study. In this context, the following methodology has been used in the present research work.

Data Source: For the research work the Secondary data has been used for the present study. This has been collected from various reports like Reserve Bank of India Database on Indian Economy, Database of Department of Industrial Policy and Promotion and website of make in India.

Time Period: For the purpose of analysing different determinants and parameters of FDI after make in India launch, data on FDI was taken from September 2014 to 2017, as Make in India started in September 2014.

Methodology: Statistical Tools and Techniques In the context of the objective of our study, different illuminating and methodical statistical techniques were used to investigate the data concerning to our study.

What is Foreign direct investment (FDI)

Foreign direct investment (FDI) is an investment made by a firm or individual in one country into business interests located in another country. FDI takes place when an investor establishes foreign business operations or acquires foreign business assets, including establishing ownership or controlling interest in a foreign company.

ROLE OF FDI IN ECONOMIC DEVELOPMENT OF INDIA**1) Helps in Balancing International Payments**

FDI is the major source of foreign exchange inflow in the country. It offers a supreme benefit to country's external borrowings as the government needs to repay the international debt with the interest over a particular period of time. The inflow of foreign currency in the economy allows the government to generate adequate resources which help to stabilize the BOP (Balance of Payment).

2) FDI boosts development in various fields

For the development of an economy, it is important to have new technology, proper management and new skills. FDI allows bridging of the technology gap between foreign and domestic firms to boost the scale of production which is beneficial for the betterment of Indian economy. Thus, FDI is also considered an asset to the economy.

3) FDI & Employment

FDI allows foreign enterprises to establish their business in India. The establishment of these enterprises in the country generates employment opportunities for the people of India. Thus, the government facilitates foreign companies to set up their business entities in the country to empower Indian youth with new and improved skills.

4) FDI encourages export from host country

Foreign companies carry a broad international marketing network and marketing information which helps in promoting domestic products across the globe. Hence, FDI promotes the export-oriented activities that improve export performance of the country.

Apart from these advantages, FDI helps in creating a competitive environment in the country which leads to higher efficiency and superior products and services

Policy reforms under make in India initiatives

Make in India initiative has resulted in increased FDI inflows which year after year is setting up new records. If the FDI inflows of US Dollar 55.6 billion for the year ending March 2016 where an all-time high, the record was not meant to last long. The country registered FDI inflow of US Dollar 60.08 billion in the next financial year (2016-17), thereby scaling an even higher peak. Increased FDI inflows in the country are largely attributed to intense and bold policy reforms the Government undertook to bring pragmatism in the FDI regime. The country has now become the topmost attractive destination for foreign investment. A new direction was given to FDI policy reforms in 2014 itself when conservative sectors like Rail Infrastructure and Defence were liberalized. This was accompanied by reforms in other sectors such as Medical Devices and Construction Development.

The steps taken in this direction during the last three years have borne fruit as is evident from the ever-increasing volumes of FDI inflows being received into the country.

FDI trends during the last three years

According to Data analyzed by Department of Industrial Policy and Promotion (DIPP), the total FDI investments India received during April-June 2017 stood at US\$ 14.55 billion, indicating that government's effort to improve ease of doing business and relaxation in FDI norms is yielding results. Data for April-June 2017 indicates that the services sector attracted the highest FDI equity inflow of US\$ 1.88 billion, followed by computer software and hardware US\$ 1.32 billion and trading US\$ 769 million. Most recently, the total FDI equity inflows for the month of June 2017 touched US\$ 3.12 billion.

During April-June 2017, India received the maximum FDI equity inflows from Mauritius (US\$ 3.29 billion), followed by Singapore (US\$ 3.01 billion), Germany (US\$ 798 million), USA (US\$ 660 million), and Netherlands (US\$ 584 million). Indian impact investments may grow 25 per cent annually to US\$ 40 billion from US\$ 4 billion by 2025, as per Mr Anil Sinha, Global Impact Investing Network's (GIIN's) advisor for South Asia. (IBEF).

Trends for the period of (2014-15 to 2016-17)

- The FDI equity inflow received during the last three financial years is US\$ 114.41 billion. It shows an increase of 40% compared to previous period of three financial years (2011-12 to 2013-14) (US \$ 81.84 billion).

- The FDI equity inflow received after the launch of Make in India initiative i.e. October 2014 to March 2017 of 30 months is US\$ 99.72 billion. It shows an increase of 62% compared to previous 30 months before the launch of MII initiative i.e. April 2012 to Sept. 2014 (US \$ 61.41 billion).
- The overall manufacturing sectors have witnessed a growth of 4% in comparison to previous three financial years (i.e. from US\$ 48.03 billion to US\$ 50.09 billion).
- The total FDI inflow during last three years grew by 38% Trends after Make in India initiative (October 2014 to March 2017)
- The FDI equity inflow received through approval route amounts to US\$ 11.69 billion, which is 64% higher than the previous three years (US \$ 7.15 billion).
- The overall manufacturing sectors have witnessed a growth of 14% in comparison to previous 30 months before launch of Make in India initiative (i.e. from US\$ 35.52 billion to US\$ 40.47 billion).
- The total FDI inflow grew by 51%, i.e. US \$ 137.44 billion in comparison to US \$ 90.98 billion of the previous 30 months before the launch of Make in India initiative i.e. April 2012 to Sept. 2014.
- The FDI equity inflow received during the F.Y. 2016-17 is US\$ 43.48 billion. It shows an increase of 9% compared to previous F.Y. 2015-16 (US \$ 40.00 billion). It is the highest ever for a particular financial year.

Investments/ developments

India has become the fastest growing investment region for foreign investors in 2016, led by an increase in investments in real estate and infrastructure sectors from Canada, according to a report by KPMG.

Some of the recent significant FDI announcements are as follows

- Kathmandu based conglomerate, CG Group is looking to invest Rs 1,000 crore (US\$ 155.97 million) in India by 2020 in its food and beverage business, stated Mr Varun Choudhary, Executive Director, CG Corp Global.
- International Finance Corporation (IFC), the investment arm of the World Bank Group, is planning to invest about US\$ 6 billion through 2022 in several sustainable and renewable energy programmes in India.
- Japanese low-cost retail chain, Miniso, is set to open its first store in India on July 18, 2017 and is targeting revenue of Rs 10,000 crore (US\$ 1.56 billion) over two years by reaching a count of 210 stores by the end of 2018 and 800 by 2019.
- Morganfield Group, a Malaysian restaurant and bar chain, is planning to enter India by launching three of its brands, Morganfield's, Mocktail Bar and Snackz It, by the end of 20 17. The company expects to open 250 outlets in India over the next five years
- Warburg Pincus, a Private Equity firm based in New York, has invested US\$ 100 million in CleanMax Solar, a rooftop solar development firm, which will be utilised to fund growth opportunities outside India and to improve product offerings.
- The capital inflows to India from Canadian institutional investors was estimated to reach over US\$ 6.5 billion in March 2016, making Canada the fifth largest foreign direct investment (FDI) partner of the country, with major investments in infrastructure projects by Brookfield, Canada Pension Plan Investment Board (CPPIB), Ontario Teachers and Fairfax, among other institutions.
- SoftBank is planning to invest its new US\$ 100 billion technology fund in market leaders in each market segment in India as it seeks to begin its third round of investments.
- Toronto-based Canada Pension Plan Investment Board (CPPIB) made investments worth Rs 9,120 crore (US\$ 1.41 billion) in India during FY 2016-17, taking their total investment in India to Rs 22,560 crore (US\$ 3.50 billion).
- The Government's Make in India campaign has attracted investment across sectors from various Chinese companies, as is evident from cumulative Foreign Direct Investment (FDI) inflows of Rs 9,933.87 crore (US\$ 1.54 billion) between 2014 and December 2016.
- Global e-commerce giant, Amazon is planning to enter the Indian food retailing sector by investing US\$ 515 million in the next five years, as per Mr Harsimrat Kaur Badal, Minister of Food Processing Industries, Government of India.

- Walmart, global retail giant, plans to open 50 new cash-and-carry stores in India over the next three to four years and locate half of the stores in Uttar Pradesh and Uttarakhand while creating over 40,000 jobs in the two states.

Government's initiatives for promoting FDI in India

Mr Modi showcased India as a business-friendly destination to attract foreign businesses to invest and manufacture in the country. The Government of India has taken several initiatives to promote a healthy environment for the growth of manufacturing sector in the country. Some of the notable initiatives and developments are:

- The Government of India has introduced several policy measures in the Union Budget 2017-18 to provide impetus to the manufacturing sector. Some of which include reduction of income tax rate to 25 per cent for MSME companies having turnover up to Rs 50 crore (US\$ 7.5 million), MAT credit carries forward extended to 15 years from 10 years and abolishment of Foreign Investment Promotion Board (FIPB) by 2017-18.
- The Government of India has launched a phased manufacturing programme (PMP) aimed at adding more smartphone components under the Make in India initiative thereby giving a push to the domestic manufacturing of mobile handsets.
- The Ministry of Heavy Industries and Public Enterprises, Government of India, has approved the setting up of four Centres of Excellence (COE) in areas of textile machinery, machine tools, welding technology and smart pumps, which will help raise the technology depth of the Indian Capital Goods Industry.
- The Union Cabinet has approved the Modified Special Incentive Package Scheme (M-SIPS) in which, proposals will be accepted till December 2018 or up to an incentive commitment limit of Rs 10,000 crore (US\$ 1.5 billion).
- The Government of India has removed the 12.5 per cent excise duty and 4 per cent special additional duty (SAD) on the manufacturing of point-of-sale (PoS) machines till March 31, 2017, which is expected to give a boost to the cashless economy as more PoS machines will be deployed in the future.
- The Government of Uttar Pradesh has secured investment deals valued at Rs 5,000 crore (US\$ 741.2 million) for setting up mobile manufacturing units in the state.
- Government of India has planned to invest US\$ 10 billion in two semiconductor plants to facilitate electronics manufacturing in the country.

CONCLUSION

The study tried to analyze the impact of "Make in India" initiative launched by government of India to liberalise trade on FDI inflows in India in various years across various sectors. 'Make in India' has helped the Indian economy grow and the government continues to encourage more investments by offering certain fiscal incentives to the investors. India is an attractive hub for foreign investments in the manufacturing sector. The implementation of the Goods and Services Tax (GST) will make India a common market which will be a big draw for investors. To conclude, make in India is one among such strategies which has power to 'Make India' a developed economy with exponential speed.

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CHANGING TRENDS IN COMMERCE AND TECHNOLOGY

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ABSTRACT

Commerce as the name itself suggests that It is the exchange of goods and services in a large scale which can include legal, economic, social, political, cultural and technological systems that operate in the country or in international trade.

as the name itself suggest that it is the exchange of Goods which was earlier known as Barter system in the prehistoric times. Apart from this commerce has developed in many aspects in today's world, as in earlier time, they used to only exchange products, but now there are company with the intention of earning profits, tries to develop the section so much that they earn huge amount of profits. For this they are utilizing whatever channels they can survive and earn profit and the market. as commerce is related majorly to account or bookkeeping or by any other name that we connect to the numerical figures on which life is dependent. As account and technology goes hand in hand, the make a perfect partner to progress and develop in the market so as to earn profit for the companies.

Through this study, we are going to know the latest trends the field of accounting with the help of technology.

Keywords: Commerce, exchange of goods, profits, accounts, technology.

INTRODUCTION

As technology is seen as total solution to end all the craving needs of various sectors, each and every sector has developed and is developing the skills to be more technology competitive. As technology has enter old the sectors, did how can accounting be separate part in it. technology has changed the way we used to do the accounts in the earlier ages and now what we are doing and how we are doing it. As accounts in the earlier ages was very boring to people who used to learn it by themselves, but now as the advancement of technology in relation with account everything's interest has increased in the accounting field by 10folds.

Here someare recent development in technology in the field of accounting which we are going to know and study about.

1. CRYPTO CURRENCY

I've this is a virtual currency which was created in the year 2009 by the computer programmer Satoshi Nakamoto for the purpose of digital payment switch do not, part of the banking system. The Cryptocurrency has no physical form like rupee. it can only be transferred to one from one party to another only by the way of digital signatures. Without digital signatures it cannot process the payment or receiving of the amount. there are number of advantages of using cryptic currency but everything comes with a bad point as well, the bad point of the disadvantage of cryptic currency is that there a lot of risk factors such as lack of regulation difficulties in tracing Crypto currency users, lack of cyber security and consumption of electrical energy which would compel the investors/ users to stay away from crypto currency.

2. REPOSITIONING ARTIFICIAL INTELLIGENCE

Artificial intelligence(AI) which refers to technologies capable of performing tasks normally requiring human intelligence, goes back centuries. artificial intelligence is expected to be the most impact full technological advancement for businesses in the next 5 years. Artificial intelligence is augmented with human intelligence so as to help them.

3. FUTURE OF THE STORE

Even though they're a physical outlet which well continue to cater the needs of the consumers to browse or buy goods, the details store needs to evolve in a better and personalized services to the customer and be more competent more informed and internet connected to the shopper. I sent earlier times people used to buy the goods around their or shop locally, but by the use of the internet based services, it can reach customer to any end of the world, as they can stay local and buy global. It not only souls better to the customers but as well as give him more choices to access the goods which are provided to him. since I'm and check out like Tao Cafe from Ali baba first made news in 2017, Steelers happen knocking on the door of technology phones wanting to repeated that experience. The rice of affordable item level tagging, computer vision and advanced machine learning have made this possible. In it simplest form, kendamas use a smartphone to scan for entry. since a technology 10 tracks the consumer in store and add items behalf removed from the shelf to virtual shopping cart. JD.com in China and Amazon in the US are working on similar initiatives.

4. CLOUD COMPUTING

It's may seem obese overton at the point, but many people still think of the cloud as online storage or just a backup plan of sorts. Not anymore. The power of the cloud has increased dramatically over the years, making book quicker and mood efficient. It right away to allow access to move information for more people at any time of the day or night. Real time insights into keep performance indicators at your fingertips and at your clients fingertips.

5. MOBILE ACCOUNTING

Accountants are interesting independent on the mobile devices to access data. Mobile connectivity also bridges accountant and their clients. Mobile app help accounting firms manage care business on the move.

6. BLOCK CHAIN TECHNOLOGY

The word block races to set up transactions which are treated by computer codes (cryptography) those block a connected to form a chain, meaning. The transaction are arranged in a chronological order. One can also think of block chain as a decentralized, extremely secured database, old to get flight mode technical, it's a distributed peer to peer ledger of records. true this technology to buyer and seller can enter into transactions directly without the intervention of a tour party administrator like a banker or a payment service provider. In this, information about the person involved in the transaction are encrypted.

7. CONCLUSION

As we are getting most smarter with product like smartphone and smart watches there are many contributing factors which our increasing the accounting and commerce technology.

**CONTACTLESS CARDS ARE SAFE TO USE: MYTH OR REALITY.
A STUDY TO UNDERSTAND THE FINANCIAL LITERACY AMONGST INVESTORS**

Dr. Pallavi Shah

“Swipe karo, aaish karo” was the moto of the of first decade of the 21st century, wherein person irrespective of age was happily using his debit/credit card for shopping. The Digital India movement of the NaMo Government also boosted the use of plastic money. Ever since the demonetisation people are afraid of hoarding spare cash at home and are seen transacting using digital wallets more frequently. PayTm recorded the highest registration in a single day (over 130 million registration) & ever since then people were happy to use plastic money instead of physical currency. What if banks provided something more of innovation to the traditional cards?

CONTACTLESS CARDS: INTRODUCTION

Contactless payments are becoming increasingly popular as it is faster and easier alternative than to enter PIN for every card transaction. It allows you to make a payment by tapping your contactless card on a payment terminal and complete transaction without any authentication. Short range proximity contact will require 2 cm to 10 cm distance from the portal to tap and make the payment in less than 1 second as opposed to 10 in the traditional cards.

COMPONENTS

These cards are embedded with RFID (Radio Frequency Identification) or NFC (Near Field Communication). These could be stored in form of digital wallets, payment apps in smartphones or devices. No signature is required for verification which provides a small window for fraudulent activities. EMV (EuroPay, Mastercard and Visa) chip that is stored in the card provides larger spectrum for the point of sale transactions. Contactless transactions could be traced back to early 2007's.

LAWS GOVERNING CONTACTLESS CARDS

RBI has made only a bye-law to prevent misuse by keeping a Rupees Two Thousand cap on authentication less transaction; however, no strong security measures are being made by Central Banks. Further, the magnetic strip cards are disbanded, bank have started to issue Contactless Cards altogether; irrespective of the need or desire of the customer. It has led to a great grievance amongst investors especially of the age group above 40 years. The banks are making excuses to push the contactless cards and creating hoax that traditional cards would not be effective, they will be worthless etc. however in truth, the traditional magnetic strip cards would be still in use, but the transaction limit would be set up to rupees two thousand only.

Electronic Fund Transfer Act (EFTA) is the federal law that governs all the financial transactions using plastic money or e-commerce in the United States of America & on the same footing Indian Parliament has drafted an act called as “The Payment and Settlement System Act, 2007.” The act has several classical features o tackle the present scenario in Indian Financial World.

The key areas of the act are:

1. Discretion of the RBI to make Committee to authorise and supervise payments
2. Authorisation of Payment Systems
3. Regulatory and Supervisory powers of the RBI
4. System Providers, duties & powers
5. Dispute Redressal Mechanisms
6. Classifications of penalties for default, fraud or misuse of sensitive information & other offences.

Even after such a regulation the banks are still seen to be working as loose canons and issuing cards without consultation of the regulators or marginally using grey marketing strategies to lure customer base. Several customers are facing irritation and agitation as the banks are forcing them to use the newly formed contactless cards instead of traditional ones.

FUTURE OF CONTACTLESS CARDS

India is a country of mass opportunities. Similarly, financial world is also quite dynamic in India. Prior Demonetization, no one had wondered that digital wallets, smart cards, plastic money etc could be used so widely and extensively. But with just one stroke of legislative amendment, the government brought us all

towards the edge of discarding all the currency transactions and accepting the e-commerce methods to pay the bills. Below are the areas in which we could expand the horizon of the contactless cards in near future.

1. Grocery
2. Fast tags
3. Fast food joints
4. Convenience stores
5. Public transport

Many a time we struggle to keep the adequate change, we don't have the required cash, we are bored to stand in ATM que etc. so to change all this, we have to carry this plastic money/cards and just swipe whenever we are needed to make payment. The above are the areas where we spend less than rupees two thousand. Hence a special card for such transactions would solve all the solvency issues.

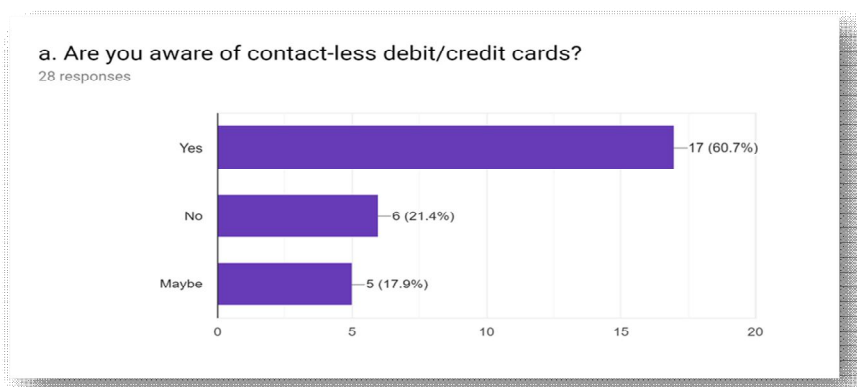
SECURITY FEATURES THAT COULD ENHANCE THE CONFIDENCE OF THE CUSTOMERS

Safety and security of the deposit is the primary criteria which customer undertakes to decide his banker. Using various latest software and technological advancements the banks are providing secured gateways. EMV chip cards have a unique feature that they cannot be duplicated like the magnetic strip cards. Also, two-way verification, OTP, PIN etc improve the security protocols. A secured customer is a happy customer.

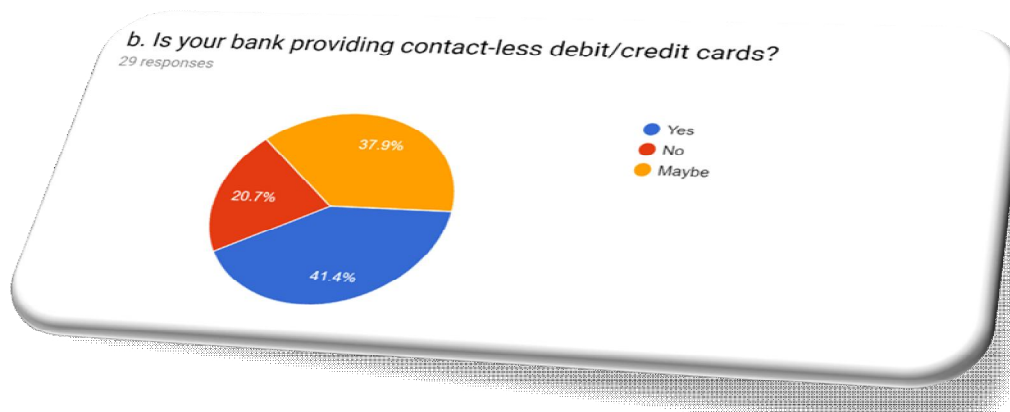
QUESTIONNAIRE

- a. Are you aware of contactless debit/credit cards?
- b. Is your bank providing contactless debit/credit cards?
- c. Do you feel safe using contactless debit/credit cards?
- d. Do you think contactless debit/credit cards have prosperous future?
- e. Are you aware of safety guidelines to use debit/credit cards?
- f. Did your bank force contactless debit/credit cards on you?

Thus, we could see from the following **summary of Questions (a), (b), (e) and (f)** that irrespective of the fact that whether the customers are aware about the contactless cards or not; bank is aggressively dumping the card on the customers against their will. Also, no awareness campaign has being instigated by the bank to spread the knowledge about the contactless cards. Banks threaten the customers that their magnetic strip cards would be invalidated from an effective date and also, they would be blocked. Such unethical practices are being frowned upon and banks are facing suit for malicious treatment to customers and spreading false information affective decision making of the investor. Such are serious cases of misrepresentation making it offence considering the fiduciary responsibility banker has towards his investors.



As you can observe in the above diagram that the majority of the public is aware about the contactless cards, digital wallets or plastic money through the advertisement made by Apple pay, Fitbit pay or Samsung pay. Private companies have now stated to launch their own digital wallets to make it possible to attract crowd to their apps and also provide a one go click payment gateway. The starting of the contactless cards was by Samsung Pay which through its Galaxy S8+ smartphone had launched tap to pay feature. Now even Google Pay app uses the same level of technology to make payment to nearby peoples. Still the rate at which the investors are moving towards such gateways are at snail's pace.



Clearly as many as 37% of the sample isn't aware as of whether their bank is providing them the service of the contactless card. This is because the bank is not involved in aggressive marketing of the featured card. However the 42% people who responded yes are the samples who have recently opened their bank account or have been given a new contactless card by the bank in recent time. And the left universe is still ignorant about the development in the e-commerce payment systems. It is hence to be seen that the customers are being made aware about the ongoing trends. This may be done by:

a. Mail

sending across mails to all the customers. Such a signature mails should include all the relevant details about the card and along with it its image and descriptions. Also the mail should contain a link to the YouTube channel of RBI where it has made a video stating all the key components of the cards, Do's & Don'ts and also the safety guidelines. Finally a safety manual should be accompanied in the attachments stating precautionary measures undertaken by the customers.

b. Advertising

hoarding on the street, bus, bridges etc that catch an eye of the customers are effective tool to generate awareness amongst the public. Spots selected should be such that they will be easy to spot, attractive and also efficiently selected to ensure attention span of larger audience.

c. Banners on site of each branch

are method of cheap and passive advertising. People become aware of the hoarding once they are in the branch waiting for the banker to attend to their query. Also a help desk could be established so as to guide them in proper way.

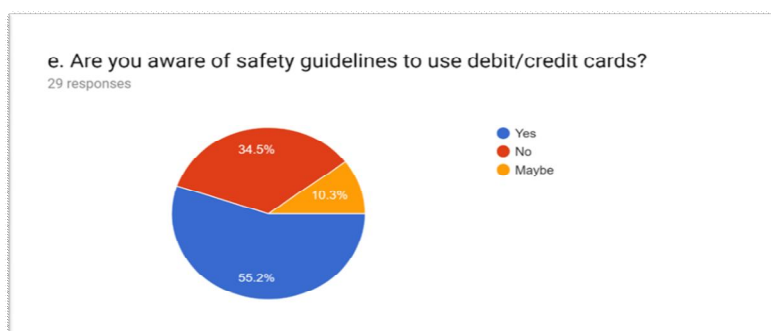
d. Direct Commercial Messaging

Direct bulk messaging to the customers so as to generate a buzz. Sometimes inviting them to the branch and directing them to the card enrolment. It's an ongoing process and will be requiring a frequency in the campaign to make it successful.

e. On-Site Demo

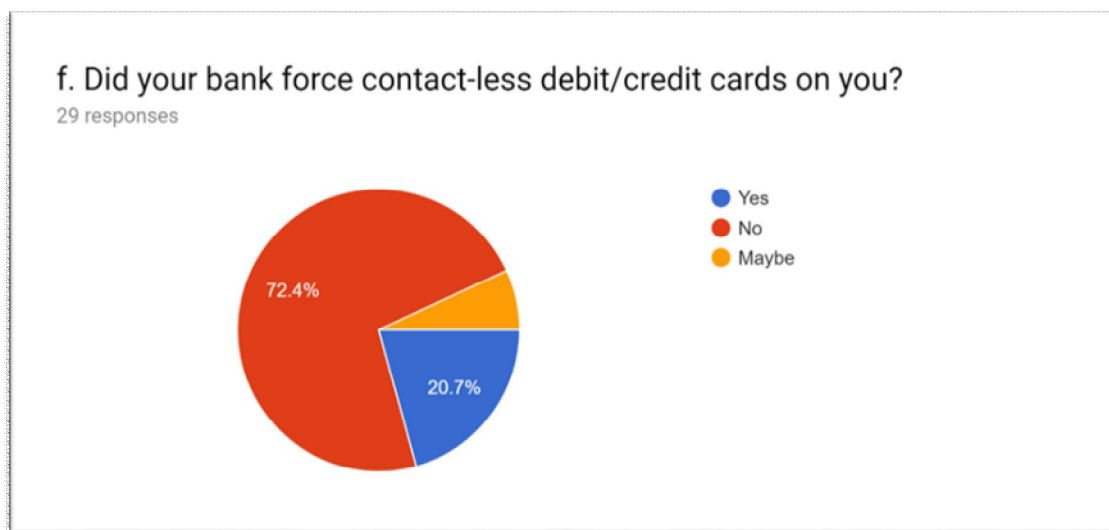
the customer should be invited to the home branch and a demo about the operation of the card should be given to him. Also the information should be stated patiently and in a manner where any normal customer would understand the concept, functioning and the operations

Moreover the manager has to ensure that the advertisement is not over the limits causing customers to feel irritated or unsecured about using either traditional or new contactless cards. Balanced advertisement campaign strategy should be implemented.



RBI has made it a mandate to all the banks that while issuing any card, a standard broucher as to “how to keep the transaction safe” guidelines are to be provided. Standard drafted publication is then send across all the channels to the investor. Hence, over 55% of the universe knows the safety features. Few are still ignorant about the protocols and that is the reason why there is occurance of cyber offences. 45% of the sampel survey are not aware about the safety guidelines.

Many people have habit of writing the PIN on inside cover of ATM cards or on the card itself which makes it even easier for the theifs to steal the money from the accounts. This was pretty basic example of the negligence as a part of the customer.



The sample suggests that the bank did not approach them with the offer to enrol for the new contactless card. As they were not aware of the fact of existance of the cards (as no efforts from their banks are being made to promote) the result is biased towards bankers nor using shady market practices to push the sale of contactless cards. However certain customers feel that they are being targeted by the bank and the card is being pushed to their disposal using various carrot and stic theories. Few of them being :

- The old card would be discontinued or be inoperational
- RBI has made rule to forbid use of magnetic strip cards
- They directly send the new card at the address of the customer accompaning with letter stating that older cards is to be returned.

This is a serious allegation that many of the reported law suits are suggesting. That the bank has mis-informed the customers about the traditional magnetic strip cards being discontinued and forced them to enroll for the contactless cards. We are now on verge of making it a mission to stop banks from promoting cards using such a strategies.

CONCLUSION & SUGGESTIONS

Having countless potential and opportunities, the bankers should not indulge into unfair practices to boost the product. The Indian public is still in its early cradle stage to adopt digital marketing practices. However efforts are to be made so as the small scale daily transactions like FMCG, Grocery, Railway Ticket, Movie or Shopping etc could be easily handled by the contactless card (just one tap and paid!). Many companies have issued their own digital smart cards so as to push the innovation into the market. For eg. Fitbit has a scan option installed in its own fitness band so as to allow the user to store the card information into the band and scan accordingly. (thus the athlete wouldn't need to carry his wallet when he is on routine jogging.) Sometime we don't even need to carry the card as the image of the card is stored in the smartphone, all we need to do is scan using the phone. But all we need to do is allow the public to adjust to the speed of technology. Excess hurry would cause chaos, panic and leading to too many frauds, theft and simphoning. Respect the adaptability and welcome to the new age of digital advancement.

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Bateson, C. D.,(2006), ‘Doing Business after the Fall: The Virtue of Moral Hypocrisy’, *Journal of Business Ethics*, 66: 321 – 335

• Multiple author journal article:

Khan, M. R., Islam, A. F. M. M., & Das, D. (1886). A Factor Analytic Study on the Validity of a Union Commitment Scale. *Journal of Applied Psychology*, 12(1), 129-136.

Liu, W.B, Wongcha A, & Peng, K.C. (2012), “Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher’s Colleges In Thailand”, *International Journal on New Trends In Education and Their Implications*, Vol.3.3, 108 – 114.

- **Text Book:**

Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2007). *Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies* (3rd ed.). New York: McGraw-Hill.

S. Neelamegham," Marketing in India, Cases and Reading, Vikas Publishing House Pvt. Ltd, III Edition, 2000.

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Raine, A. (Ed.). (2006). *Crime and schizophrenia: Causes and cures*. New York: Nova Science.

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- **Electronic sources should include the URL of the website at which they may be found, as shown:**

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- **Unpublished dissertation/ paper:**

Uddin, K. (2000). A Study of Corporate Governance in a Developing Country: A Case of Bangladesh (Unpublished Dissertation). Lingnan University, Hong Kong.

- **Article in newspaper:**

Yunus, M. (2005, March 23). Micro Credit and Poverty Alleviation in Bangladesh. *The Bangladesh Observer*, p. 9.

- **Article in magazine:**

Holloway, M. (2005, August 6). When extinct isn't. *Scientific American*, 293, 22-23.

- **Website of any institution:**

Central Bank of India (2005). *Income Recognition Norms Definition of NPA*. Retrieved August 10, 2005, from <http://www.centralbankofindia.co.in/home/index1.htm>, viewed on

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