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WAL-MART'S ENTRY INTO E-RETAILING - STRATEGIC ENVIRONMENTAL ANALYSIS

Dr. V. V. L. N. Sastry, Abhishek Sinha, Sagar Kalantre, Gaurav Saxena, Sarvade Thirumalesh Rao and Mubashshir Hashimi

EPGSBL, 2019-20, Indian Institute of Management, Calcutta

Introduction

E-retailing is the usage of internet resources by businesses in selling digital, as well as physical, products straightforwardly to their customers. E-retailing businesses – e-retailers – use the internet as servicing, marketing, and merchandising channels. At present, the leading consumer e-retailer is Amazon. For those businesses that are considering venturing into the e-retailing space, they should think about the Amazon's market dominance, depth, and breadth (Turban et al., 2018). Some e-retailing businesses sell specific products online to other businesses – business-to-business transactions. Other e-retailers sell specific products online to consumers – business-to-consumer transactions. By and large, e-retailing requires businesses to customise own business models with the aim of capturing internet or online sales (Laudon, 2019). For instance, e-retailing requires businesses to put together distribution channels, which may be product shipping centres, websites, and warehouses (Kristin, 2013). The channels are a key driver of e-retailing business as they are essentially the avenues through which given products are moved to the targeted businesses or consumers. There are varied emerging trends in the e-retailing industry. More and more businesses and consumers are keen on shopping for specific merchandise and purchasing them using mobile phone-based applications (apps) – e-retailers should have websites that are responsive to the applications or have websites with the requisite shopping and browsing apps. Many e-retailers are committing more and more resources into building the flexibility of their logistics. The present research in the context of environmental analysis shows that Wal-Mart's entry into e-retail business is a spot-on strategy deployed at opportune time.

Industry Overview & Competitors**i. Industry Overview**

Presently, consumers are highly attracted to businesses that capture their attention as well as offer them multichannel, vibrant, and seamless shopping experiences. The typical modern-day shopper has widely taken on the handiness of making his or her purchases online – there has been lots of growth on the online retail sales front in recent time (Turban *et al.*, 2018). Online retail sales are now growing at a higher rate than the traditional brick-and-mortar retail sales. Actually, while the former are growing, the latter are receding in most national economies (Laudon, 2019). Consequently, there are more and more retailers that are at present making substantial reserves with the aim of capitalizing on the opportunities available to them for growing their e-retailing market shares as well as growing their revenues. The specific investments that e-retailers are making in the building or enhancement of their e-retailing capabilities can have their returns grown markedly if the e-retailers target new markets overseas.



Figure 1 A Wal-Mart supercentre (Bernal, 2019)

Notably, the e-retail markets entail different actors, features, and phenomena. These include online sales channels and distributors (Laudon, 2019). Some of the leading e-retailers include eBay, Flipkart, Amazon, Alibaba Group Holdings, Walmart, Jingdong, and Zalando. In recent years, the global e-retail sales have been growing steadily (Kristin, 2013). The largest e-retail sales growths are being registered in various regions, including the Asia-Pacific region, Eastern Europe, Central Europe, and Southeast Asia (Turban *et al.*, 2018). These regions have one thing in common – they are characterized by markets that are maturing digitally. Walmart can take advantage of the nature of the markets, growing its e-retail sales markedly over a short period of time (Laudon, 2019). Notably, at present, Walmart is commendably focusing on expanding its e-retail business to Asia, especially India. India is among the largest Asian economies in relation to its geographical area and population.

E-retailing is one of the most talked about topics in the business world. It is even more commonly talked about than the presently chaotic advertising landscapes (Bank, Kenny & Stecher, 2018; Frank, 2019). Across the globe, there are many brands and agencies that are more worried about e-retailing than other important subjects such as influencer marketing, machine learning, augmented reality, and artificial intelligence (Granata, Tartaglione & Tsiakis, 2019; Turban *et al.*, 2018). There are many businesses that are keener on making e-retail investments than investing in influencer marketing, machine learning, augmented reality, and artificial intelligence (Kristin, 2013).

Others are seeking for ways of using influencer marketing, machine learning, augmented reality, and artificial intelligence to bolster their e-retailing capabilities. As the e-retail marketplace continues evolving, many businesses and brands are becoming keener and keener on appreciating how they can thrive, become competitive across intricate ecosystems, and unlock revenue in the marketplace (Turban *et al.*, 2018). Such businesses include Wal-Mart. Even then, contrary to the period of the digital movement advent, thriving in the e-retail industry now calls for more than just possessing websites having products on sale. E-retailers can only succeed if they take strategically-sound, as well as thoughtful, approaches to outcompete their competitors.

ii. Competitors

Right now, the leading consumer e-retailer is Amazon, which is American e-retailer whose headquarters are in Washington.



Figure 2 Amazon logo (Visual Hierarchy, 2019)

Amazon began its operations in 1994 and over time it has grown into the largest e-retailer globally by not only market capitalization but also cumulative sales (Bank, Kenny & Stecher, 2018; Frank, 2019). Originally, it started selling books online and then diversified to selling other products online – e-retailing – as well as cloud computing. Its fast growth as an e-retailer is attributable to its capability for innovation and its readiness to take on competitors in the e-retail space (Turban *et al.*, 2018). Its market capitalization is way larger than that of Wal-Mart, its revenue generation model is faster than that of Wal-Mart, and is among the largest cloud computing enterprises. Even then, Wal-Mart is performing better than Amazon regarding their net incomes (Bank, Kenny & Stecher, 2018; Frank, 2019).

Amazon is performing better than Wal-Mart in relation to the omnichannel battle between them. Even then, there is a sign that Wal-Mart might match Amazon on the same given that Wal-Mart has acquired several e-retailers in recent times (Kristin, 2013). In 2016, for instance, it acquired Jet.com. Presently, Wal-Mart is likely to match the digital marketplace of Amazon with its megastores. Even then, the digital marketplace is an online resource while the megastores largely work

offline. The Wal-Mart's store network comprises of thousands of stores across the US and elsewhere. Notably, the adults and old people in the areas where the stores are located are highly inclined towards visiting the physical stores within each month (Turban *et al.*, 2018). They do not feel right when they stay for long devoid of visiting the stores.

There is an ongoing question of whether Wal-Mart can limit its stores and put in place an online platform that is robust enough to counter the digital market of Amazon (Laudon, 2019; Turban *et al.*, 2018). It is thought that Jet.com may just be the acquisition that may drive the development of the online platform. There are indications that the retailer is likely to close many of the stores going forward (Kristin, 2013). It is expected that the older generation of Wal-Mart patrons or customers are likely to be gripped by an online mania in the days ahead (Bank, Kenny & Stecher, 2018; Frank, 2019). The stores do not confer significant e-retailing advantages on Wal-Mart considering that more and more consumers are now inclined toward making purchases online (Turban *et al.*, 2018).

Wal-Mart may become as competitive as Amazon in the e-retail front if Wal-Mart changes the physical retail experiences that it offers to consumers. Its offline stores can be helpful to Wal-Mart with transformed services and look (Bank, Kenny & Stecher, 2018; Frank, 2019). Even though Alibaba has since made very heavy e-retail investments, it has retained its physical stores across China (Granata, Tartaglione & Tsiakis, 2019; Laudon, 2019). Even then, it has since made the stores e-retail-ready. When a customer walks into any of the offline stores, he or she utilises digital devices in selecting particular merchandise, especially groceries and fruits. That means that customer experience only matters for a limited range of merchandise (Granata, Tartaglione & Tsiakis, 2019; Turban *et al.*, 2018). That as well means that in the case of Wal-Mart, offline may still survive for specific merchandise.

Amazon is always keen on delivering excellent innovation results. Amazon innovated an online bookstore. It innovated a unique experience – the Kindle experience. The Kindle experience is a cloud computing, as well as audiobook, platform (Roberts & Berg, 2012). There are plans to have Amazon groceries delivered to the homes of consumers by automatic, driverless cars or drones in the future. In the past, Wal-Mart has not been as innovative as Amazon (Bank, Kenny & Stecher, 2018; Frank, 2019; Roberts & Berg, 2012). Wal-Mart is still devoid of innovation funds and its innovations are as yet fewer than those of Amazon. The innovations include the Wal-Mart app, which helps customers by supporting them to decimate waiting time and offers them a click-and-collect service. The Wal-Mart's innovations are rather minimal compared to the driverless car and drone innovations of Amazon.

Flipkart is one of leading Indian e-retailers (Granata, Tartaglione & Tsiakis, 2019; Kristin, 2013). Amazon has been battling Wal-Mart for a stake in Flipkart. Amazon and Wal-Mart were locked in a fight to purchase a Flipkart's controlling stake. Had Amazon gotten the stake, it would have had an upper hand over Wal-Mart in the Indian market. Given that Wal-Mart got the stake, it is now enjoying an upper hand over Amazon in the Indian market. Another e-retailer operating in the market is Snapdeal. Amazon operates in India at present as Amazon India. Even then, on a typical day, Flipkart registers higher shipment growth and numbers than Amazon India (Granata, Tartaglione & Tsiakis, 2019; Kristin Turban *et al.*, 2018). Even then, it seems like it is just a matter of time before Amazon Indian outcompetes Flipkart in the market given that the former has more business expansion resources than the latter. Alibaba has been keen on supporting Flipkart in the market wars pitting it against Amazon. At present, the market share enjoyed by Flipkart in India is larger the one enjoyed by Amazon in the country.



Figure 3 A Flipkart store (Gilchrist, 2019)

Google is an e-retailer even though its operations are somewhat different from those of other e-retailers such as Amazon. The Amazon's advertising revenue is way less than that of Google in the US. Even then, there is high chance that Amazon

has enough capacity for challenging Google and Facebook regarding advertising (Bank, Kenny & Stecher, 2018; Frank, 2019; Roberts & Berg, 2012). Many of those who use Google do not view it as being an e-retailer. Rather, they use the search engine for free news, intellectual searches, as well as movies, among other uses. Most of those who visit the Amazon and Wal-Mart websites do so with the aim of buying e-retail products. There are various Google platforms that seem to have been designed to counter specific Amazon e-retail platforms: Amazon Prime versus Google Express and Google Assistant versus Amazon Alexa (Turban *et al.*, 2018).

From the industry overview and competitor foregoing, it is clear that Wal-Mart's entry into e-retail business is a spot-on strategy deployed at opportune time. It is clear that if Wal-Mart invests heavily into the transformation of customer service, it may get an unbeatable edge in the e-retail marketplace. If it invests more and more into innovation, Wal-Mart may get an unbeatable edge in the e-retail marketplace (Laudon, 2019; Roberts & Berg, 2012). If Wal-Mart innovates, as well as challenges, its e-retail competitors markedly, it will certainly revolutionise how e-retail business is carried out globally. It has a clear edge over its competitors after its controlling stake at the Indian Flipkart (Kristin, 2013; Roberts & Berg, 2012). A study of its competitors and the e-retail industry as a whole show that there are many opportunities that are now available to Wal-Mart owing to its entry into e-retail business – thus the entry is a proper strategy whose deployment has been properly timed.

Environmental Analysis Using PESTEL

i. Political

Political forces affect Walmart brand significantly. The political dynamics in Asia, especially India and China, are favoring the entry of Walmart into e-retail business (Granata, Tartaglione & Tsiakis, 2019; Laudon, 2019). The political dynamics in Asia have been favoring the expansion of Walmart's activities on the continent. The Chinese and Indian political classes are no longer as opposed to the expansion of the activities as they were in the past – at present, Walmart operates tens of retail units across India and hundreds of retail units across China (Turban *et al.*, 2018). The US government has been engaging various Asian governments with the aim of having them remove the red tape and intricate regulatory regimens that have been impeding foreign businesses plus foreign investments into their local economies.

In recent times, the prospects for the expansion of Walmart's e-retail business into India have been increasing following engagements between the US government and the Indian government. The engagements are likely to get rid of the challenges that Walmart and other American businesses have been experiencing in their quest for entering the Indian market. The US government is persuading the Indian government to change the Indian foreign direct investment regulations, especially for the e-retail segment (Granata, Tartaglione & Tsiakis, 2019; Turban *et al.*, 2018). The US government is seeking to have India change the Indian e-retail regulations in favor of Walmart and other American companies like Amazon.

It is expected that the American e-retailers will in the days ahead be capable of selling merchandise of businesses in which they hold given stakes in the future owing to the engagements, which are ongoing (Granata, Tartaglione & Tsiakis, 2019; Kristin, 2013). It is expected that Walmart will be capable of selling merchandise of Flipkart across India – Walmart is the majority shareholder of the Indian Flipkart. It is expected that Walmart will be capable of mandating other companies with presence in India to sell its merchandise on its website and other e-retail platforms (Granata, Tartaglione & Tsiakis, 2019; Turban *et al.*, 2018).

It is expected that Walmart will be capable of straightforwardly or otherwise shape merchandise sale prices in the country and be afforded a level-playing field in its operations within the country (Granata, Tartaglione & Tsiakis, 2019; Turban *et al.*, 2018). By and large, the US government is engaging many governments to get rid of protectionist measures that have impeded the expansion of the e-retail and other operations of American companies in foreign lands. The entry of Walmart into e-retail business is a good strategy in light of the engagements – Walmart is likely to have its e-retail business thrive in many foreign countries before long.

ii. Economic

Multinationals typically thrive when the global economy is equally flourishing. When recession sets in, multinationals and other businesses are often compelled to decimate their operational costs, which affect their revenues plus profits adversely often. At present, the global economy is growing, following a period of general economic downturn (Turban *et al.*, 2018). People are spending heavily on various items, including on retail as the global economy is generally thriving (Granata, Tartaglione & Tsiakis, 2019). The prospects of the retail sector, including the e-retail segment, are looking up. It is expected that the e-retail segment will continue growing at a rather fast rate – Walmart has entered the segment at a time when its e-retail returns are expected to grow rather fast (Granata, Tartaglione & Tsiakis, 2019; Kristin, 2013).

At present, the labor market is showing signs of improvement. Workers are earning increasing per hour incomes. That means that more and more individuals now have large amounts of dispensable income – they are using substantial fractions of the incomes in making purchases from e-retailers (Turban *et al.*, 2018). That means that the profitability of the e-retail segment and of e-retailers such as Walmart is likely to grow going forward. The generally thriving global economy is likely to result into a highly sustained growth of the revenue bases and profitability of e-retailers and the e-retail sector in general (Kristin, 2013). The present-day global economic trends and growth patterns are likely to occasion additional good news for e-retailers, including the Walmart brand, despite the growing competitive pressure that they are contending with.

iii. Social

Various social forces or pressures affect multinationals' profitability in significant ways. Social trends consumers' purchasing behaviors, affecting given brands' profitability. The demographics of consumers keep changing – they have changed markedly in recent years (Bank, Kenny & Stecher, 2018; Frank, 2019). Millennials are highly inclined towards making purchases online, especially from e-retailers. There is a growing usage of smartphones, which have as well encouraged and supported online shopping in a great way. The growth of e-retailing has been threatening retailers with offline stores (Kristin, 2013; Roberts & Berg, 2012).

Even then, retailers with offline stores can take advantage of the growing online shopping craze, especially among millennials by establishing e-retail stores the way Walmart has been doing in recent times (Turban *et al.*, 2018). The growing inclination of millennials and other youngsters towards online shopping means that the entry of Walmart into e-retail business is a good strategy in light of the inclination - Walmart is likely to register high e-retail sales volumes going forward.

The e-retail websites of Walmart are accessible from tens of countries. As an e-retailer, Walmart is likely to register growing e-retail sales volumes since more and more people are using technology (Turban *et al.*, 2018). The company can use varied technological solutions to enhance online customer convenience and customer service, growing the volumes further and further. As well, the company can use varied technological solutions to enhance online customer engagements, growing the volumes additionally (Kristin, 2013). The company, as an e-retailer, will certainly benefit from the growing usage of social media across the globe. Notably, Facebook and other social media have in recent times grown into significant trends that impact on the e-retail segment.



Figure 4 Social media (Jamie, 2019)

Globally, cultural, as well as social, structures vary. Their variations bear on consumers' shopping behaviors significantly. By and large, socio-cultural elements as well have a unique significance in the global e-retail industry's context. There are various socio-cultural reasons why online shopping, which is likely to see Walmart enjoy lots of success with its e-retail business, has risen. Presently, the typical consumer spends heavily on various items. In the past, the typical consumer was highly likely to walk into a physical store to make a purchase. Even then, at present, the typical consumer prefers making purchases online, from the comfort of their

offices and their homes using his or her mobile phone and having products that he or she purchases online delivered directly to him or her (Turban *et al.*, 2018). That is why more and more of the traditional retailers are becoming e-retailers, establishing e-retail stores. Many of the traditional physical retail stores at present have online presences. The growth of e-retail sales has in turn made physical retail stores suffer depressed revenues and profitability. As noted earlier, there are various socio-cultural reasons why online shopping, which is likely to see Walmart enjoy lots of success with its e-retail business, has risen.

First, many people are now keen on making purchases online from e-retailers as they can do so regardless of the time of the day (Kristin, 2013). E-retailers mean that consumers are now free from time restrictions in relation to making purchases (Granata, Tartaglione & Tsiakis, 2019). E-retail stores have no working hour restrictions – more and more consumers are finding the stores rather time-saving and convenient owing to their busy lives (Laudon, 2019).

Second, e-retail resources such as websites are allowing consumers opportunities for making price comparisons. When one flicks through various e-retailers' websites, he or she quickly determines which of the e-retailers is offering the fairest prices for given items. That makes it easy for him to secure the items at the best prices possible (Turban *et al.*, 2018). When shopping in offline stores, one has to walk from one of them to another if he or she is keen on comparing the product prices at the different stores, expending lots of time plus energy. In regard to price comparisons, online shopping is more lucrative and convenient than shopping from offline retail stores.

Third, e-retailing or the making of online sales allows e-retailers opportunities for getting rid of any stocks that they do not require and opportunities for attracting new consumers. Walmart, as an e-retailer, now enjoys opportunities for getting rid of any stocks that it does require any longer and opportunities for attracting new consumers. Fourth, more and more people are taking to online purchases since it allows them great choices – online shoppers have access to wider ranges of items than the ones provided by offline stores (Turban *et al.*, 2018).

As an e-retailer, Walmart is not restricted by its storefronts' corporeal dimensions. It merely lists wide-ranging items on its website – online store – prior to having them shipped out to consumers from its physical warehouses (Kristin, 2013). Besides, if its website has some items that are missing, it easily finds the relevant stocks elsewhere. That means that its entry into e-retail business is a spot-on strategy deployed at opportune time. Fifth, more and more consumers are taking to making purchases from e-retailers as doing so helps them save money. Many e-retailers ship the items that consumers purchase from their online stores to the consumers at no cost.

The consumers save money since they are not required to incur and shoulder transportation costs in relation to the items they buy from e-retailers or meet any related parking expenses (Laudon, 2019; Roberts & Berg, 2012). Lastly, more and more people are likely to make purchases from e-retailers since they allow consumers opportunities for ordering items from different countries their physical locations notwithstanding (Turban *et al.*, 2018). A person in America can purchase a product online from India and have the item sent straightforwardly to him or her using his or her mobile phone. Offline stores cannot provide similar experiences (Laudon, 2019). That means that Walmart's entry into e-retail business is a spot-on strategy deployed at opportune time in light of the world shopping experiences that more and more consumers are yearning for every day.

iv. Technological

In recent years, varied technological factors have become increasingly essential for businesses. Technology plays key roles in businesses that operate offline and the ones operating online (Bank, Kenny & Stecher, 2018; Frank, 2019; Roberts & Berg, 2012). Over the years, technology has become increasingly critical for Walmart – the e-retailer's customer service, personnel management, marketing, supply chain management, and other functions in the e-retailer are now hinged on the usage of technology. Technology makes the execution of the functions very effective (Kristin, 2013; Roberts & Berg, 2012). In recent years, Walmart has continued to make significant investments in technology acquisition and deployment, especially to enhance online customer experiences and customer service. Walmart's entry into e-retail business is a spot-on strategy deployed at opportune time since it has the requisite technological wherewithal (Bank, Kenny & Stecher, 2018; Frank, 2019).

Walmart, as an e-retailer, has its success largely driven by artificial intelligence plus information technology. The execution of many of the e-retailer's functions is now highly dependent on real-time analytics plus data (Roberts & Berg, 2012). The e-retailer is using information technology, as well as data, in driving own sales plus profitability upwards. Notably, the technological wherewithal that the e-retailer, Walmart, has are paying off well when compared to those of Amazon (Kristin, 2013; Roberts & Berg, 2012). The Walmart's omnichannel programs, which are hinged on technology, are helping grow the compute sales made by the e-retailer. As well, the programs are affording consumers fresh shopping convenience and

experience levels (Laudon, 2019; Roberts & Berg, 2012). To enhance the experience, the e-retailer has been investing in technology heavily, bringing marked digital abilities even to its offline stores. The technology deployed in the stores offers consumers seamless shopping experiences whenever they choose to make purchases from the e-retailer's stores.

Walmart now has hundreds of automated pickup towers – consumers pick online orders up from the towers, especially general item orders (Laudon, 2019). By picking up the orders from the towers, the shipping costs that would have been incurred in relation to particular general items are decimated, in-store traffic is augmented, and in-store purchases are possibly spurred (Kristin, 2013).



Figure 5 Wal-Mart's automated pickup tower (Peterson, 2017)

At present, Walmart is testing driverless cars in several states, including Arizona, for directly delivering groceries to consumers who purchase them online. Walmart is experimenting with the utilization of varied robots in processing online grocery orders and helping in the picking of the groceries that consumers place orders for online (Turban *et al.*, 2018). Walmart is investing more and more resources in the running of television commercials. In the past, the usage of technology has helped Walmart outcompete some e-retailers such as eBay.

v. Environmental

Almost all businesses are now concerned about sustainability. Many e-retailers are now focusing on waste management, packaging, consumption of power, and related factors. Walmart is concerned about waste management, packaging, consumption of power, and related factors and has invested heavily in ensuring that it is defined by environmental friendliness and sustainability in all its varied facets (Kristin, 2013). As well, Walmart is keen on ensuring that it does not generate any form of waste and that the packaging materials that it uses are all ecofriendly. At present, a large percentage of the packaging materials and other materials that it uses in its American distribution centers, clubs, and stores do not end up in landfills.

At present, a large percentage of the packaging materials and other materials that it uses in its Japanese distribution centers, clubs, and stores do not end up in landfills. As well, at present, a large percentage of the packaging materials and other materials that it uses in its British distribution centers, clubs, and stores do not end up in landfills (Laudon, 2019; Roberts & Berg, 2012). The highest landfill diversion rates are registered by Walmart in its British and Japanese operations at present. As well, it has been registering commendable landfill diversion rates in Mexico and Canada – diversion rates of over 70% in both countries (Turban *et al.*, 2018;

Roberts & Berg, 2012). The environmental policies that Walmart works will help it remain environmentally sustainable even as it grows as an e-retailer in the days ahead.

Walmart's entry into the e-retail space is a proper strategy deployed at an appropriate time since Walmart has already put in place measures that ensure that its operations and activities are highly sustainable (Kristin, 2013; Roberts & Berg, 2012). Walmart is already keen on sustainability. It has already put in place systems that help it in tackling, as well as getting rid of, excess waste from its process of delivery merchandise to consumers – that forms a significant component of its sustainable consumption objectives (Laudon, 2019; Roberts & Berg, 2012).

vi. Legal

Walmart operates in a legal climate that favors and supports its entry into the e-retail marketplace (Laudon, 2019). Over the years, Walmart has remained very keen on complying with the applicable laws that guide the operations of retailers, including e-retailers (Granata, Tartaglione & Tsiakis, 2019). Compliance with the laws has helped built its reputation and profits over the years by and large. It has remained keen on addressing the legal challenges that it has faced in the past, especially in relation low wages, discrimination, and labor rights (Turban *et al.*, 2018). For instance, it has since started investing heavily into its efforts aimed at bettering the work conditions that it subjects its workers to routinely (Granata, Tartaglione & Tsiakis, 2019).

Already, there are many laws that are in place that supports Walmart's operations as an e-retailer. There are different tax laws in different countries and states that seek to support the operations of retailers, including e-retailers such as Walmart (Laudon, 2019). Walmart has invested heavily in programs and departments aimed at helping it have a proper appreciation of the applicable tax laws in different jurisdictions (Kristin, 2013). There are many tax professionals that Walmart can contract to help it comply with the applicable tax laws globally. Many tax law professionals that are available to Walmart can assist it understand particular instances and incidences that may affect its e-retail business and products (Turban *et al.*, 2018).

There are many laws that support the different payment gateways that are available to Walmart as an e-retailer. There are numerous legal payment gateways that Walmart can take advantage of in its e-retail operations (Roberts & Berg, 2012). There are many laws that support the shipping operations of Walmart as an e-retailer (Turban *et al.*, 2018). There are many laws that support the insuring of the e-retailer's business interests and other interests in different jurisdictions (Granata, Tartaglione & Tsiakis, 2019; Roberts & Berg, 2012). In almost all the countries where the e-retailer has operations in, it does not face significant challenges in its efforts aimed at getting the requisite permits and licenses (Laudon, 2019; Roberts & Berg, 2012). In each of those countries, there are local licensing agencies and departments that readily advise the e-retailer in relation to the relevant licensing and other legal requirements.

Industry Environment Analysis Using Porter's 5 forces

E-retail industry is perceived to be very competitive. Analyzing each force that shape the competition in the industry will tell us how intense the competition is and where does Walmart stand amidst these competitive forces.

• Low Supplier Bargaining Power

The entry of Walmart into the e-retail space is favored by the actuality that the power to bargain for suppliers in the e-retail industry is rather low. Where it is not low, it is only moderate at most. Those who make supplies to Walmart have very limited bargaining power since the Walmart brand sets the rules by which the suppliers operate. The suppliers have no choice but to adhere to the rules set by the brand (Granata, Tartaglione & Tsiakis, 2019). As a brand, Walmart is very cautious in relation to its relationships with those who make supplies to it. It has since put in place a supplier code of conduct that speaks to issues of sustainability, employee compensation, labor, and supply quality (Kristin, 2013). Its suppliers are devoid of a wide range of options. Consequently, they are limited to playing by the rules set by the brand. That means that the brand has an upper hand over its suppliers the quality and size of the suppliers notwithstanding.

• Moderately High Buyer Bargaining Power

The fact that the customers of Walmart and customers in the e-retail industry in general are devoid of exceedingly high bargaining power favors its entry into the e-retail space. The bargaining power is only moderately high (Turban *et al.*, 2018). The moderately high-power stems from the actuality that a number of big and small e-retail brands have since been launched and operational at present – the customers do not contend with high switching costs when moving from any of the e-retail brands to others (Kristin, 2013; Laudon, 2019). Those who make purchases from e-retailers usually are highly informed and easily compare product prices in different businesses easily, including from their mobile phones (Turban *et al.*, 2018).

Walmart can contain, withstand or survive the moderately high bargaining power that its customers enjoy through various ways, allowing self to thrive as an e-retailer (Laudon, 2019). First, Walmart can contain, withstand or survive the moderately high bargaining power that its customers enjoy by working on and improving its brand image, allowing self to thrive as an e-retailer (Turban *et al.*, 2018). Second, Walmart can contain, withstand or survive the moderately high bargaining power that its customers enjoy by enhancing its product quality, allowing self to thrive as an e-retailer (Kristin, 2013; Laudon, 2019). Lastly, Walmart can contain, withstand or survive the moderately high bargaining power that its customers enjoy by offering fair product prices to them, allowing self to thrive as an e-retailer.

- **Substitute Product Threats**

There are marked substitute product threats in the e-retail space. The threats are posed by competing e-retailers. The competing e-retailers in the case of Walmart include Amazon and Google. Other substitute product threats in the e-retail industry are presented by retailers having offline stores (Granata, Tartaglione & Tsiakis, 2019). Even then, e-retailers, including Walmart can thrive in the face of the threats if they adopt various specific measures (Turban *et al.*, 2018). First, the threats notwithstanding, Walmart and other e-retailers can thrive can become highly competitive via low product prices (Granata, Tartaglione & Tsiakis, 2019). Second, they can thrive through improved product quality. Lastly, they can thrive by improving the general customer experience. If Walmart adopts these measures as an e-retailer, it will not be hit hard by the actuality that its customers will not have to contend with high switching costs if they decide to make purchases from any of the rival e-retail brands or from retailers with offline stores.

- **New Entrant Threat**

The entry of Walmart into the e-retail space is favored by the actuality that new entrant threat in the e-retail industry is rather low. There is a high chance that the number of Walmart's rivals in the e-retail market will remain for a long time – the prospects of the e-retailer for being profitable will remain very high for many years (Turban *et al.*, 2018). The threat is especially low since for one to put up an e-retail business, he or she requires large amounts of capital. He or she needs to invest heavily in not only technology but also in marketing and human resources (Kristin, 2013; Laudon, 2019). He or she will have significant challenges in building trust with his or her clients and in building an e-retail brand image.

- **High Industry Rivalry Level**

The e-retail market is highly competitive as it has numerous players. The e-retailers that are at present competing against Walmart include Amazon, Flipkart, Coles, Alibaba, and eBay (Granata, Tartaglione & Tsiakis, 2019; Roberts & Berg, 2012). There are many global, as well as local, brands that are active in the e-retail space. High industry rivalry levels portend depressed profits (Roberts & Berg, 2012; Turban *et al.*, 2018). Even then, there are indications that Walmart has lots of capacity for thriving in the face of the high e-retail industry rivalry levels. It has since put in place strategies that will see it compete effectively in the industry (Granata, Tartaglione & Tsiakis, 2019; Roberts & Berg, 2012). The strategies are paying off – recently, Walmart dethroned Apple as the third largest e-retailer globally. That means that the strategies will help it weather the high levels of competition in the industry going forward.

One of the strategies that have helped Walmart thrive in the markedly competitive e-retail industry is the acquisition of different digital brands that young consumers identify with – the brands resonate with the young consumers easily (Granata, Tartaglione & Tsiakis, 2019). In recent times, Walmart has been very active in making new e-retail acquisitions and related strategic partnerships, which have helped augment its e-retail offering (Kristin, 2013; Laudon, 2019). The acquisitions have seen Walmart become highly capable of engaging more and more shopper cohorts, which it would otherwise not have engaged. In 2016, Walmart acquired the Jet e-retailer and redesigned it to principally serve millennial shoppers and urban shoppers. In 2016, Walmart acquired the Shoebuy e-retailer, which principally sells footwear.

In 2016, Walmart acquired the Moosejaw e-retailer, which principally sells outdoor apparel. In 2017, Walmart acquired the Bonobos e-retailer, which principally sells men's apparel. In 2018, Walmart acquired the Eloquii e-retailer, which principally deals with plus-size fashion. In 2018, Walmart acquired the Bare Necessities e-retailer, which principally deals with women's intimates. Also, in 2018, Walmart acquired the Art.com e-retailer, which principally deals with home accessories. As well, Walmart has become very competitive by making strategic business partnerships, which have made it capable of competing better with Amazon Marketplace (Turban *et al.*, 2018). It has forged strategic business partnerships with various e-retailers, including Google. Google helps to bring the product offerings of Walmart to Google Home, where people shop by voicing out the items they require, and Google Express.

To remain highly competitive, Walmart has reinvented own apparel offering. It is obvious that Amazon and Walmart are at present battling each other, each seeking to grow its share of the online apparel market. Amazon has been aggressively taking over most of the available online apparel verticals with not only private labels but also name brands – just as some leading departmental stores, including JCPenney and Sears, have tripped up as well as crashed (Turban *et al.*, 2018). In response to the aggressive taking over of the available online apparel verticals by Amazon, Walmart has introduced unique, fresh fashion lines into chief apparel segments. The introduction of the lines has assisted Walmart to maintain its status as the leading apparel e-retailer across America varied predictions that Amazon would dethrone it from the status or position notwithstanding (Kristin, 2013). Walmart has been investing rather heavily in the collation of specific data to help it appreciate its new audiences better (Turban *et al.*, 2018).

To remain highly competitive, Walmart has introduced to the e-retail market fresh fashion-forward styles of men and women clothing. Such styles include celebrity brands and private labels. Actually, Walmart is the leading e-retailer now as regards the styles. In 2018, it launched various private labels, including George, Time and Tru, Wonder Nation, and Terra and Sky. It has since launched a number of celebrity label partnerships. These include its partnership with Ellen DeGeneres and Stewart Elizabeth. It is very responsive to the apparel choice needs expressed by its online customers (Kristin, 2013; Laudon, 2019). Many of the online customers are now almost always sure to get apparels that are on-trend, low cost, comfortable, and of high quality from the e-retailer. Each of the apparels sold online by the e-retailer is by and large a considerate reflection of the extant styles and trends, which makes it very attractive to the e-retailer's typical customer – the customer has a on-the-go and busy lifestyle.

In 2018, Walmart doubled down on its BOPUS (buy online, pick up in-store) platform to weather the challenge that Amazon posed with its BOPUS platform. The doubling down on the Walmart's BOPUS has seen it match the capabilities of Amazon, especially in the grocery segment. Of all the categories of products that Amazon sells, the fastest growing one has been the grocery category in recent times (Turban *et al.*, 2018). Amazon has supported the very fast growth of the grocery category by investing heavily in own Buy Online, Amazon Pantry, BOPUS, Whole Foods stores, and Amazon Fresh. These heavy investments notwithstanding, Walmart has largely held its own through improvements in its BOPUS model – Walmart Grocery Pickup. It has been leveraging own large offline store network, which is accessed by a large percentage of the American population every day (Kristin, 2013).

As Amazon remains very keen on matching the success registered by Walmart in the online apparel marketplace, Walmart remains very keen on matching the success registered by Amazon in the online grocery marketplace (Kristin, 2013). The continued investment into the online grocery space by Walmart has already started giving commendable results – in 2018, its grocery customer numbers grew by a whopping 33% and in 2017, the numbers grew by 26%. There is a high chance that at present Walmart is the leading e-retailer in the online grocery marketplace. The competition between the two e-retailers in the marketplace is expected to intensify going forward as each of them is heavily investing in the improvement of its omnichannel grocery capacity.

By and large, Walmart has been successful in holding its own in the face of the high e-retail industry rivalry by redesigning its mobile platforms – apps – and website (Bank, Kenny & Stecher, 2018; Frank, 2019). The redesigning of the apps and the website has helped in enhancing online customer experiences. In 2018, the e-retailer made a number of significant upgrades (Granata, Tartaglione & Tsiakis, 2019). First, it redesigned its website, giving it a highly contemporary design and outlook. Second, it enhanced the capabilities of own mobile app (Turban *et al.*, 2018).

The two upgrades helped make shopping from its online stores very fast and very easy. Notably, its website appears as if it is sharing some features with the website of Amazon. Such features include elements tailor-made to the preferences of users and localized product offerings. The Walmart's website old design gave users a warehouse-like feel (Kristin, 2013). Its redesigned website has interfaces that look sharp and clean – the interfaces emphasize the omnichannel features of the e-retailer. One of the omnichannel features is the nearest Grocery Pickup store, free delivery for some orders, and localized product offerings.

Walmart's mobile app makes it easy for users to put together own shopping lists on a platform that computes their total orders automatically prior to having the users get to the e-retailer's stores (Bank, Kenny & Stecher, 2018; Frank, 2019). When a user gets to any of the stores, he or she can utilize the mobile up in accessing digital maps leading to where the products they have purchased are locate and accessing virtual assistants if

need be. That ensures that the user saves lots of time when getting products from the stores (Turban *et al.*, 2018).

As well, the mobile app features Mobile Express Returns, which allow for the return of already purchased items to any Walmart store, barcode scanners, wedding registries, baby registries, and weeks ads (Turban *et al.*, 2018). When one looks at the upgrades generally, he or she gets the feeling that the e-retailer is keen on holding its own in the face of the high e-retail industry rivalry level, especially by making improvements on its wider omnichannel strategy – the e-retailer is keen on the continued integration of own large store network with own digital platform.

Even a causal analysis of the e-retail industry shows that the entry of Walmart into the e-retail space is favored by the present dynamics of the industry - Walmart operates in an industry that favors and supports its entry into the e-retail marketplace (Granata, Tartaglione & Tsiakis, 2019). The e-retail strategic partnerships that it has established in the recent times, the e-retail brands that it has since acquired, and the omnichannel model investments that it has already made show that it is poised to register lots of success in the e-retail space and is likely to dethrone Amazon as the dominant player in the e-retail industry (Turban *et al.*, 2018).

It is obvious that Walmart is capable of further leveraging and integrating own large store network into an operational and thriving omnichannel model, which will keep on improving each succeeding year. Its market reach is larger than that of its largest competitor in America – Amazon – partly because of the network (Turban *et al.*, 2018). Even though the differences between Amazon and Walmart's competitiveness are still significant, the capabilities of the latter for speeding own growth based on innovations to expand its market reach shows that it is highly committed to outcompeting the former and other competitors ultimately.

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A COMPARATIVE EXPLORATION ON THE GROWTH OF MOBILE BANKING USE OF SELECTED PUBLIC SECTOR, PRIVATE SECTOR AND FOREIGN BANKS

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ABSTRACT

Mobile banking is a digital advancement; an internet based online banking using smart phone. Further, the technological advancement has given rise to the use of banking services in an innovative way. The use of m-banking for transfer of funds and making payments found to be increasing. It allows the users to spend their deposits or credit through linked bank account or plastic card such as debit card, credit card etc. Technological advancement, rise in use of e-commerce and demonetization in November, 2016 has also hit up the m-banking use. The aim of the present study is to study and analyzed the m-banking use of sample public sector bank SBI, private Sector bank ICICI and Foreign bank Citibank. The sample bank has been selected by following Stratified Random Sampling. Only secondary data related to m-banking use of SBI, ICICI and Citibank, in terms of volume i.e. number and value i.e. amount has been cited, studied and analyzed. The result shows that there is an incremental growth of volume of m-banking transactions of SBI, ICICI and Citibank, which further has increased its use in value. It is observed that the Mean Length of volume of m-banking use of SBI, ICICI and Citibank (32218466.401 of SBI, 13395828.715 of ICICI and 726919.382 of Citibank; from Graph No. 1 :) is Statistically Significantly different. The growth and use of m-banking volume found to be greater in SBI than that of the ICICI and Citibank. Further, the Mean Length of value\amount of m-banking use of SBI, ICICI and Citibank (225324720.422 of SBI, 142639258.548 of ICICI and 10347344.367 of Citibank; from Graph No. 2 :) is Statistically Significantly different. The growth and use of M-banking value found to be greater in SBI than that of the ICICI and Citibank. The researcher has conducted Pearson's and Durbin-Watson Correlation Test. The result shows Positive Correlation between volume and value of m-banking use of SBI, ICICI and Citibank. The researcher formed Regression Equation i.e. $Y_i = 32442557.922 + 6.063 (X_i)$ and Graphical presentation in Graph No. 3. To test the validity of the Regression Equation, the researcher has conducted Cook's Distance (shows less number of outliers) and Mahalanobis test (shows Positive Association between Volume\Number and Value\Amount). The study concludes with suggestions to and scope for the future research.

Index Terms: M-Banking, Platform, M-wallets, E-commerce.

1. INTRODUCTION

The New Economic Policy, 1991, The Banking Sector Reforms, 1991 and 1998, The Amendment in Banking Policy, 2013, Demonetization Policy in November, 2016 and further technological advancement and digitalization has made banks tech-savvy, which has given rise to the use of e-banking products and services like debit card, credit card, RTGS, NEFT, M-banking, M-wallet etc.

Mobile banking (m-banking) is the most important technological interfaces advancement in retail banking sector to carry out financial transactions. Mobile banking has ability to get connected with bank Anytime Anywhere through net on mobile device.

2. WHAT MOBILE BANKING IS ALL ABOUT?

M-banking is a digital form of banking linked with a bank account to carry out banking financial transactions such as account balance check, fund transfer, request to bank for availing various banking services, online shopping and payments, loans, investments and deposits, mudra loan etc. M-banking is the act of carrying bank account linked financial transactions using mobile device such as cellphone, tablet etc.

3. CONCEPTUAL FRAMEWORK

The researcher has gone through the m-banking concepts, which is clarified by well-known thinkers. Some of the eminent are as follow;

Bernes and Corbitt in 2003; [.....] can be defined as a channel whereby the customer interacts with a bank via a mobile device, such as a mobile phone or Personal Digital Assistant (PDA).

Pousttchi and Schurig in 2004; [.....] a type of execution of financial services in the course of which - within an electronic procedure - the customer uses mobile communication techniques in conjunction with mobile devices.

Porteous in 2006; Mobile payments (m-payments) are financial transactions undertaken using mobile device such as a mobile phone. Mobile banking (m-banking) includes m-payments but involves access by mobile device to the broader range of banking services, such as account-based savings or transactions products offered by banks.

Clarke III in 2008; [.....] can be considered as a subset of e-banking or online banking and refers to the shift of conducting financial transactions from wired networks to wireless networks.

Lee and Chung in 2009; [.....] is defined as banking transactions using mobile devices such as cellphones, PDAs (Personal Digital Assistants), smart phones, and other devices (except for laptops).

Laukkanen and Kiviniemi in 2010; [.....] It is an interaction in which a customer is connected to a bank via a mobile device such as cell phone, smartphone, or personal digital assistant (PDA).

Oliveira et al. in 2014; [.....] m-banking is an instance of a mobile commerce (m-Commerce) application in which financial institutions enable their customer to carry out banking activities via mobile device.

Shaikh and Karjaluo in 2015; [.....] is a product or service offered by a bank or a microfinance institute (bank-led model) or MNO (non-bank-led model) for conducting financial and non-financial transactions using a mobile device, namely a mobile phone, smartphone, or tablet.

Koksai in 2016; [.....] is any form of banking transaction that is carried out through a mobile device, such as a mobile phone or a personal digital assistant

4. LITERATURE REVIEWED SO FAR

The following section presents the selected literatures reviewed by the researcher on mobile banking, which will provide a framework for the researchers interested in Mobile banking and helps to stimulate future research interest.

Roger's in 1995^[16]; has used Innovation Diffusion Model to study attributes like compatibility, complexity, relative advantage. The findings indicate that compatibility, relative advantage, ease of use has a significant effect on attitude to adopt M-banking services. An important suggestion made by them is to reduce complexity to increase mobile and smart phone users. The customers have positive belief about the relative advantage of Mobile banking only if they have a favorable attitude towards adopting M-banking services.

Liao and Cheung in 2002^[11]; have found some factors that individual expectations regarding accuracy, security, network speed, user-friendliness and involvement and convenience were the foremost attributes, which are useful for Internet-based e-retail banking.

According to **Clark (2008)^[4];** Mobile phone is an electronic channel capable of giving customers more low cost service options such as access to banking information, funds management and making online payments.

In January 2008, ICICI bank was the first to start mobile services in India (**Mr. V. Vaidyanathan, 2008**)^[20] and SMS alert has been started in 2005 - 2006 (**Alpesh Patel, 2013**)^[1]. Almost 16.5 per cent of wireless mobile phone subscribers are using the Internet over their mobile phones for using m-banking.

Yang A. S. in 2009^[23]; in his empirical study investigated the factors associated with adopting and resisting Mobile banking technologies in Taiwan. Three hundred (300) students were selected for the purpose of the study using the stratified sampling technique. The primary factors associated with resistance included concerns over system configuration security and basic fees for Mobile banking web connections. The research found out that security and cost of connection to the internet was a hindrance to the adoption of Mobile banking facilities among students in Taiwan.

Further, **Vyas in 2009^[22];** predicts great Mobile banking potential in Indian banks as Indian banks will aim to target online banking users without regular access to internet but are very likely to own mobile devices. This report of Vital Analytics recommended huge potential of Mobile banking in India, as the study found that checking account balance is the most frequently cited reason by urban Indian customers' for using Mobile banking. This report has found that 40 million Urban Indians used their mobile phones to access their bank account balances followed by accessing last three transactions.

Riquelme and Rios in 2010^[15]; have examined that the factors which could influence the adoption of m-banking use among the current users of internet banking facilities using gender as a variable. Respondents were selected using Purposive Sampling technique and analysis was done using the regression model. Findings suggest that social risk, social influence and perceived usefulness are the most important factors that influence

consumer intention to use and adopt Mobile banking facilities among male and the influence on each factors also differs among male users.

Daud, Norzaidi, Ezalin and Maria in 2011^[7]; in their study examined the factors that influences the adoption of M-banking in Malaysia using extended Technology Acceptance Model (TAM). The proposed model was empirically evaluated using the Survey Technique and data were collected from 300 banking users with reference to their perceptions towards Mobile banking. The findings of the study suggest that this model can predict consumer intention to use Mobile banking. Specifically, perceived credibility, perceived usefulness and awareness about Mobile banking have significant effect on user's attitude thus influence the intention toward Mobile banking.

According to **Vinayagamoorthy and Sankar (2012)^[21]**; Mobile banking able to perform various functions like checking of account history, mini statement and access to card statements, SMS alert, checking of balance etc. with the help of mobile phones. Banks are continuously trying to increase their base by updating technology and by trying to reach every customer. Even the rural customers can get easy access to Mobile banking whenever required.

According to **Chugh (2014)^[5]**; has concluded that the Reserve Bank of India has released the operative guidelines which indicates that only those banks which are licensed and supervised in India and have a physical presence in India will be permitted to offer Mobile banking services.

Singh Shamser (2014)^[18]; has examined the adoption pattern and impact of Mobile banking on customers of different banks located in Delhi. A survey opinion of 200 customers was conducted. ANOVA and Factor Analysis have been used and there were five factors identified; Security/Privacy, Reliability, Efficiency, and Responsiveness on the basis of understanding of customer's perception regarding Mobile banking. Results indicate that the demographic factors have significant impact on the customer perceptions towards m-banking.

5. RATIONALE OF THE STUDY

Technological advancement in the form of electronic banking has made banking easy, fast, flexible and convenient for the bank and bank customers at the fingertip around the globe. Electronic banking has given rise to the use of e-banking instruments like debit card, credit card, Core Banking, RTGS, NEFT, mobile banking etc. Money wallet in mobile allows bank customer to use m-banking services, which allows user to access account and to carry out online transactions. The different banks are providing m-banking services on different platform with different services to accountholders with different services such as account check, fund transfer, loan avail, debit card services, investments and deposits, m-passbook etc. Private and Foreign Banks were the foremost to adopt and implement technology in banking business, which has created competitive environment for public sector banks not only to satisfy existing banking customers but also to retain them for long. Hence, there is a need to compare, explore and analyze, **"A Comparative Exploration on the Growth of Mobile Banking Use of Selected Public Sector, Private and Foreign Bank"**.

6. OBJECTIVES OF THE STUDY:

1. To study the concept of mobile banking and its services.
2. To study the growth of m-banking use in terms of volume (i.e. number) of SBI, ICICI and Citibank.
3. To study the growth of m-banking use in terms of value (i.e. amount) of SBI, ICICI and Citibank.
4. To study the association between number and amount of m-banking use of SBI, ICICI and Citibank.

7. HYPOTHESES OF THE STUDY:

The hypothesis of the study is a **Formal Affirmative Statement** formed by the researcher to find out research outcome and experiment. **It explains the relationship, if any, between two or more variables, which are under the research study.** On the basis of above mentioned objectives, the researcher has formulated following **Quantitative Hypotheses**.

7.1 Fundamento of Forming Hypotheses:

The researcher has considered following points for forming hypotheses of the study.

1. Public sector, Private Sector and Foreign banks in India.
2. Mobile banking transactions of sample banks.
3. Volume i.e. Number of mobile banking transactions.
4. Value i.e. Amount of mobile banking transactions.

7.2 List of Quantitative Hypotheses On The Basis of Mobile Banking Use:

1. There is no significant difference in growth of volume i.e. number of m-banking transactions of SBI, ICICI and Citibank. ($H_0: \mu VMMB_{SBI} = \mu VMMB_{ICICI} = \mu VMMB_{Citibank}$)
2. There is no significant difference in growth of value i.e. amount of m-banking transactions of SBI, ICICI and Citibank. ($H_0: \mu VLMB_{SBI} = \mu VLMB_{ICICI} = \mu VLMB_{Citibank}$)
3. There is no association between number and amount of m-banking transactions of SBI, ICICI and Citibank.

8. RESEARCH METHODOLOGY:

8.1. Type of the Research Study: The present research study is *Quantitative* in nature.

8.2 Approach to the Research Study: The approach to the present research study is *Particularistic*.

8.3 Research Type: The present research study is *Conclusive* in nature.

8.4. Sample Design:

8.4.1. Universe and Population: The universe and population for the present research study is *Public Sector banks, Private Sector Banks and Foreign Banks* in India.

8.4.2. Type of Population: The population for the present research study is *finite* i.e. in terms of *number of banks, its branches, volume and value of mobile banking and its use*.

8.4.3. Sampling Frame: *Public Sector banks, Private Sector Banks and Foreign Banks*

8.5. Sampling Method:

8.5.1. Bank: The sample private sector banks are selected by *Stratified Random Sampling*. Three banks from each of the public sector, private sector and foreign banks have been selected considering their *Date of Establishment, Volume and Value of Mobile Banking Use, Number of Working Branches\Offices and Number of an ATM as on*.

Table No. 1: Details of Sample Bank as on 31st March, 2019 in India

Particular Head\Bank Name	SBI	ICICI	CITIBANK
Date of Establishment	July, 1955	June, 1994	June, 1902
Number\Volume of Mobile Banking	145159525	59826121	1926633
Value\Amount of Mobile Banking	1275330289	450217373.1	37412684.64
Number of Branches\Offices	17264	3868	52
Number of Employee	282919	67857	5758

It was found that the SBI, ICICI and Citibank lead in above criteria. Hence, Public Sector Bank - State Bank of India, Private Sector Bank - Industrial Credit and Investment Corporation of India and Foreign Bank - Citibank has constitutes the sample bank for the present research study.

8.6. Collection of Data: *Only Secondary Data* has been organized and analysed.

8.6.1. Secondary Data: The researcher has collected secondary data from the published sources such as books, articles, periodicals and related websites. The required secondary data is related to mobile banking use, which has been collected from the source; The Reserve Bank of India (<https://m.rbi.org.in/Scripts/NEFTView.aspx#>). The researcher has collected secondary data related to mobile banking use of SBI, ICICI Bank Ltd., and Citi bank from April, 2011 to September, 2019.

8.7. Method of Data Collection: From the published sources, by The Reserve Bank of India.

8.8. Period of Data Collection: *Secondary Data* - 8.5 yearly (102 months for each sample bank) data related to mobile banking use has been cited and analyzed.

8.9. Data Cleaning: The research study is prone to either missing or noisy data, which may affect entire study. Hence, such data is required to be clean up. For the present research study, the researcher has done data cleaning as follow.

8.9.1. Missing Value: Data was screened and Case Processing Summary table was prepared to find out missing values if any. It reveals no missing values.

Table No. 2: The Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Volume-SBI	102	100.0%	0	0.0%	102	100.0%
Value-SBI	102	100.0%	0	0.0%	102	100.0%
Volume-ICICI	102	100.0%	0	0.0%	102	100.0%
Value-ICICI	102	100.0%	0	0.0%	102	100.0%
Volume-CITIBANK	102	100.0%	0	0.0%	102	100.0%
Value-CITIBANK	102	100.0%	0	0.0%	102	100.0%

8.9.2. Test of Normality: The result of *Normality of Data* using *Kolmogorov-Smirnov and Shapiro-Wilk* is as follow.

Table No. 3: Tests of Normality by Kolmogorov-Smirnov = (D) and Shapiro-Wilk = (W)

	Kolmogorov-Smirnov ^a = (D)			Shapiro-Wilk = (W)		
	Statistic	Df	Sig.	Statistic	df	Sig.
Volume-SBI	.300	102	.000	.597	102	.000
Value-SBI	.288	102	.000	.608	102	.000
Volume-ICICI	.240	102	.000	.718	102	.000
Value-ICICI	.230	102	.000	.753	102	.000
Volume-CITIBANK	.176	102	.000	.764	102	.000
Value-CITIBANK	.209	102	.000	.808	102	.000

a. Lilliefors Significance Correction

From the table above, the Calculated Test Statistics (W for S-W, D for K-S) Significance Value is less than 0.05, which shows that the data related to volume and value of mobile banking transactions of SBI, ICICI and Citibank is statistically significantly different from the normal distribution. Thus the data is deviates from normal distribution. Thus, the H_0 of normality of data is rejected.

8.9.3. Reliability Analysis: *Cronbach's Alpha* was found to be **0.763**, suggesting “*Good Internal Consistency*” among variables. (Table no. 5)

Table No. 4: Case Processing Summary

		N	%
Cases	Valid	102	100.0
	Excluded ^a	0	.0
	Total	102	100.0

a. Listwise deletion based on all variables in the procedure.

Table No. 5: Reliability Statistics

Cronbach's Alpha	N of Items
.763	6

8.9.4. Analytical Tools:

8.9.4.1 Use of Package: The researcher has used SPSS 21 to test the hypotheses of the present research study.

8.9.4.2. Test of Normality: The researcher has used Kolmogorov-Smirnov and Shapiro-Wilk test of normality.

8.9.4.3. Test of Reliability: The researcher has used Cronbachs' Alpha, to test Data Reliability.

8.9.4.4. Statistical Techniques: Descriptive Statistics, Levene Test Homogeneity of Variances, ANOVA, Robust Test of Equality of Means, Pairwise and Multiple Comparison by Bonferroni Correction Test and its Estimated Marginal Means by Graphical Presentation and Pearson's Correlations (1-tailed).

8.9.4.5. Models Constructed and Applied: R-square and Adjusted R-square Model Summary, Durbin-Watson Auto-Correlation, Coefficient Model and Graphical Presentation of Coefficient Regression Equation.

8.9.4.6. Validity Test: Cook's Distance (Di) and Mahalanobis Distance to measure Euclidean Space.

9. ANALYSIS AND INTERPRETATIONS

(A) INFERENCE ANALYSIS

To understand and analyze the mobile banking use of selected public sector, private sector and foreign bank, the researcher has used and cited secondary data for Inferential Analysis.

1. There is no significant difference in growth of volume i.e. number of m-banking transactions of SBI, ICICI and Citibank. ($H_0: \mu VMMB_{SBI} = \mu VMMB_{ICICI} = \mu VMMB_{Citibank}$)

To test the above hypothesis, the researcher has collected secondary data related to volume i.e. number of mobile banking transactions of SBI, ICICI and Citibank April, 2011 to September, 2019.

Table No. 6: Table Labeling and Subjects Factor

Between-Subjects Factors			
TOB			Value Label
			N
	1		SBI
	2		ICICI
	3		CITIBANK
			102
			102
			102

Table No. 7: Descriptives of Volume\Number of Mobile Banking Use of SBI, ICICI and Citibank

VolumeMB								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
SBI	102	32218466.401	53959094.115	5342746.445	21619894.636	42817038.167	860528	241583684
ICICI	102	13395828.715	18804510.749	1861924.011	9702272.328	17089385.102	96385	76920592
CITIBANK	102	726919.382	762701.205	75518.672	577110.650	876728.114	10180	5388126
Total	306	15447071.500	35346743.735	2020638.846	11470914.239	19423228.760	10180	241583684

The Descriptive table above shows, Statistic related to volume of mobile banking of SBI, ICICI and Citi Bank. It (Mean Value for SBI, ICICI and Citi Bank lies between Lower and Upper Bound Level at 95% Confidence Interval. It shows acceptable range of data set.) shows Statistically Significant increase in Number of mobile banking transactions.

Table No. 8: Levene Statistic: Test of Homogeneity of Variances of Number of m-banking of SBI, ICICI and Citi Bank

Levene's Test of Equality of Error Variances ^a			
Dependent Variable: VolumeMB			
F	df1	df2	Sig.
55.327	2	303	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + TOB

The Calculated Levene Statistic (at df1 2 and df2 303) is 55.327, p-value is 0.000. Therefore, the null hypothesis of Homogeneity of (Equal) Variances is Rejected. Thus, the Variances are Not Equal.

Table No. 9: ANOVA - Univariate Tests: Number of m-banking of SBI, ICICI and Citi Bank

VolumeMB					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51221356553007208.000	2	25610678276503600.000	23.526	.000
Within Groups	329843292713999170.000	303	1088591725128710.000		
Total	381064649267006530.000	305			

The F tests the effect of TOB. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

The Calculated Fisher Value $F_{crit}(2, 303) = 23.526$ is greater than its Critical Value 3.09 (at df1 2 and df2 303) and its Significance Value is 0.000 (i.e. $p = 0.000$), which is less than 0.05, and therefore there is a Statistically Significant Difference in Mean Length of Number of mobile banking transactions of SBI, ICICI and Citibank.

To support the result of ANOVA (Equality of Mean), the researcher has conducted Welch's t- test, is also called as Welch's Adjusted T, as follow.

Table No. 10: Robust Test of Equality of Means by Welch's test of Number of m-banking of SBI, ICICI and Citi Bank

Robust Tests of Equality of Means				
VolumeMB				
	Statistic ^a	df1	df2	Sig.
Welch	40.256	2	134.915	.000
a. Asymptotically F distributed.				
In table above, calculated Welch Statistic = 134.915 and its significance value is 0.000, shows that the assumptions of Normality has been maintained. Further, it is proved that the Mean value of Number of mobile banking transactions of SBI, ICICI and Citibank Statistically Deviates Significantly.				

Every research is prone to Type I error, for testing null hypothesis, i.e. the possibility of false-positive result (i.e. a certain per cent of the results is likely to yield an error i.e. the situation when a null hypothesis is rejected, even though it is accurate and should not be rejected.). Hence, the researcher has conducted Pairwise and Multiple Bonferroni Correction Test. This test is conducted to correct the increased error rate of testing null hypothesis.

Table No. 11: Pairwise Comparisons - Dependent Variable: Number of Mobile Banking Transactions of SBI, ICICI and Citibank

Dependent Variable: VolumeMB						
(I) TOB	(J) TOB	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
SBI	ICICI	18822637.686*	4620057.985	.000	9731176.250	27914099.123
	CITIBANK	31491547.020*	4620057.985	.000	22400085.583	40583008.456
ICICI	SBI	-18822637.686*	4620057.985	.000	-27914099.123	-9731176.250
	CITIBANK	12668909.333*	4620057.985	.006	3577447.897	21760370.770
CITIBANK	SBI	-31491547.020*	4620057.985	.000	-40583008.456	-22400085.583
	ICICI	-12668909.333*	4620057.985	.006	-21760370.770	-3577447.897

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

From the above table of Pairwise Comparison, without adjustment, it is observed that the Negative Mean Difference Value is below Lower Bound and Positive Mean Difference Value is between Lower Bound and Upper Bound at 95% Confidence Interval. Further, it is concluded that there is a Statistical Significant Mean difference between SBI-ICICI, SBI-CITIBANK, ICICI-SBI, ICICI-CITIBANK, CITIBANK-SBI and CITIBANK-ICICI in growth of i.e. Number of mobile banking transactions of SBI, ICICI and Citibank. The above pairwise table depicts that the significance value of ICICI-CITIBANK and CITIBANK-ICICI shows 0.006, which is, less than p-value 0.05 but little higher than that of the 0.000 for SBI.

From the table above the researcher found some data which may affect overall significance of number of mobile banking transactions of SBI, ICICI and Citibank. Hence, to correct the same, the researcher has conducted the Bonferroni Correction or Bonferroni Adjustment Test. This test is conducted to prevent the overall data from the data, which incorrectly appearing to be significant. This is done by making an adjustment during comparison testing. The researcher has done Bonferroni Corrections or Adjustment Test as follow;

Table No.12: Multiple Comparisons - Dependent Variable: Number of Mobile Banking Transactions of SBI, ICICI and Citibank Post Hoc Tests by Bonferroni Correction

Multiple Comparisons						
Dependent Variable: VolumeMB						
Bonferroni						
(I) TOB	(J) TOB	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
SBI	ICICI	18822637.68627451*	4620057.985224585	.000	7700559.71459335	29944715.65795568
	CITIBANK	31491547.01960785*	4620057.985224585	.000	20369469.04792668	42613624.99128901
ICICI	SBI	-18822637.68627451*	4620057.985224585	.000	-29944715.65795568	-7700559.71459335

	CITIBANK	12668909.33333333*	4620057.985224585	.019	1546831.36165216	23790987.30501450
CITIBANK	SBI	-31491547.01960785*	4620057.985224585	.000	-42613624.99128901	-20369469.04792668
	ICICI	-12668909.33333333*	4620057.985224585	.019	-23790987.30501450	-1546831.36165216

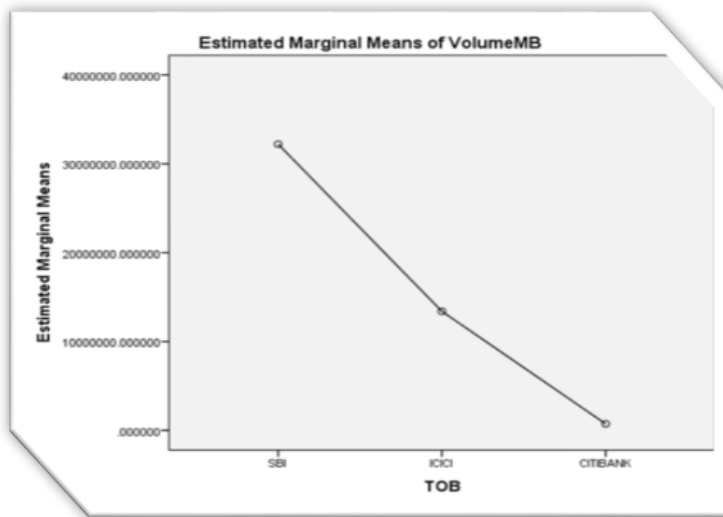
Based on observed means.

The error term is Mean Square (Error) = 1088591725128710.000.

*. The mean difference is significant at the .05 level.

The above Bonferroni Correction table shows the Adjusted significance value of of ICICI-CITIBANK and CITIBANK-ICICI to 0.019 (which was 0.006 in pairwise), less than its p-value 0.05. (This shows that there is a change in significance value of ICICI-CITIBANK and CITIBANK-ICICI). Thus, the table above shows that there is a Statistical Significant Mean difference between SBI-ICICI, SBI-CITIBANK, ICICI-SBI, ICICI-CITIBANK, CITIBANK-SBI and CITIBANK-ICICI in growth of i.e. Number of mobile banking transactions of SBI, ICICI and Citibank.

Graph No. 1: Estimated Marginal Means of Number of Mobile Banking Transactions of SBI, ICICI and Citibank



Graphically, the Estimated Marginal Means of Volume i.e. Number of Mobile Banking Transactions can be shown by Mean Plots;

SBI = 32218466.401,
ICICI Bank Ltd. = 13395828.715
and CITIBANK = 726919.382

Therefore, the Alternate Hypothesis, “There is a significant difference in growth of volume i.e. number of m-banking transactions of SBI, ICICI and Citibank. ($H_0: \mu VMMB_{SBI} = \mu VMMB_{ICICI} = \mu VMMB_{Citibank}$) (It is Accepted)

- There is no significant difference in growth of value i.e. amount of m-banking transactions of SBI, ICICI and Citibank. ($H_0: \mu VLMB_{SBI} = \mu VLMB_{ICICI} = \mu VLMB_{Citibank}$)

To test above hypothesis, the researcher has collected secondary data related to value i.e. amount of mobile banking transactions of SBI, ICICI and Citibank April, 2011 to September, 2019.

Table No. 13: Table Labeling and Subjects Factor

Between-Subjects Factors			
		Value Label	N
TOB	1	SBI	102
	2	ICICI	102
	3	CITIBANK	102

Table No. 14: Descriptive of Value\Amount of Mobile Banking Use of SBI, ICICI and Citibank

Descriptives								
ValueMB								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
SBI	102	225324720.422	401708356.208	39775054.189	146421712.282	304227728.561	454010	210927842
ICICI	102	142639258.548	192792681.355	19089319.974	104771182.688	180507334.407	201923	1069301434
CITIBANK	102	10347344.367	11698555.869	1158329.635	8049529.959	12645158.776	32647	37412684
Total	306	126103774.446	271396121.640	15514683.624	95574408.919	156633139.972	32647	2109278432

The Descriptive table above shows, Statistic related to value of mobile banking of SBI, ICICI and Citi Bank. It (Mean Value for SBI, ICICI and Citi Bank lies between Lower and Upper Bound Level at 95% Confidence Interval. It shows acceptable range of data set.)

shows Statistically Significant increase in amount of mobile banking transactions.

Table No.15: Levene Statistic: Test of Homogeneity of Variances of Value\Amount of Mobile Banking Use of SBI, ICICI and Citibank

Levene's Test of Equality of Error Variances ^a			
Dependent Variable: ValueMB			
F	df1	df2	Sig.
44.161	2	303	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + TOB

The Calculated Levene Statistic (at df1 2 and df2 303) is 44.161, p-value is 0.000. Therefore, the null hypothesis of Homogeneity of (Equal) Variances is Rejected. Thus, the Variances are Not Equal.

Table No. 16: Test Between and Subject Effects

Tests of Between-Subjects Effects						
Dependent Variable: ValueMB						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2398812484850225200.000 ^a	2	1199406242425112580.000	18.111	.000	.107
Intercept	4866061550436214800.000	1	4866061550436214800.000	73.478	.000	.195
TOB	2398812484850222100.000	2	1199406242425111040.000	18.111	.000	.107
Error	20066223241748103000.000	303	66225159213690120.000			
Total	27331097277034540000.000	306				
Corrected Total	22465035726598330000.000	305				

a. R Squared = .107 (Adjusted R Squared = .101)

The table above shows that all variances of value of m-banking use of SBI, ICICI and Citibank is 0.107; some 11% of variances are attributable to type of bank. It would say it's not awful but not negligible.

Table No. 17: ANOVA - Univariate Tests: Value\Amount of Mobile Banking Use of SBI, ICICI and Citibank

VolumeMB					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	51221356553007208.000	2	25610678276503600.000	23.526	.000
Within Groups	329843292713999170.000	303	1088591725128710.000		
Total	381064649267006530.000	305			

The F tests the effect of TOB. This test is based on the linearly independent pairwise comparisons among the estimated marginal means. The Calculated Fisher Value $F_{crit}(2, 303) = 23.526$ is greater than its Critical Value 3.09 (at df1 2 and df2 303) and its Significance Value is 0.000 (i.e. $p = 0.000$), which is less than 0.05, and therefore there is a Statistically Significant Difference in Mean Length of Amount of Mobile Banking Transactions of SBI, ICICI and Citibank.

To support the result of ANOVA (Equality of Mean), the researcher has conducted Welch's t- test, is also called as Welch's Adjusted T, as follow.

Table No. 18: Robust Test of Equality of Means by Welch's test of Value\Amount of Mobile Banking Use of SBI, ICICI and Citibank

Robust Tests of Equality of Means				
ValueMB				
	Statistic ^a	df1	df2	Sig.
Welch	38.265	2	135.274	.000

a. Asymptotically F distributed.

In table above, calculated Welch Statistic = 38.265 and its significance value is 0.000, shows that the assumptions of Normality has maintained. Further, it is proved that the Mean value of Amount of Mobile Banking Transactions of SBI, ICICI and Citibank Deviates Significantly.

Every research is prone to Type I error, for testing null hypothesis, i.e. the possibility of false-positive result (i.e. a certain per cent of the results is likely to yield an error i.e the situation when a null hypothesis is rejected, even though it is accurate and should not be rejected.). Hence, the researcher has conducted Pairwise and Multiple Bonferroni Correction Test. This test is conducted to correct the increased error rate of testing null hypothesis.

Table No. 19: Pairwise Comparisons - Dependent Variable: Amount of mobile transactions of SBI, ICICI and Citibank

Pairwise Comparisons						
Dependent Variable: ValueMB						
(I) TOB	(J) TOB	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
SBI	ICICI	82685461.874	36035156.911	.067	-4063627.892	169434551.640
	CITIBANK	214977376.054*	36035156.911	.000	128228286.288	301726465.821
ICICI	SBI	-82685461.874	36035156.911	.067	-169434551.640	4063627.892
	CITIBANK	132291914.180*	36035156.911	.001	45542824.414	219041003.947
CITIBANK	SBI	-214977376.054*	36035156.911	.000	-301726465.821	-128228286.288
	ICICI	-132291914.180*	36035156.911	.001	-219041003.947	-45542824.414

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

From the above table of Pairwise Comparison, without adjustment, it is observed that the Negative Mean Difference Value is below Lower Bound and Positive Mean Difference Value is between Lower Bound and Upper Bound at 95% Confidence Interval. Further, it is concluded that there is a Statistical Significant Mean difference between SBI-ICICI, SBI-CITIBANK, ICICI-SBI, ICICI-CITIBANK, CITIBANK-SBI and CITIBANK-ICICI in growth of i.e. Amount of mobile banking transactions of SBI, ICICI and Citibank. The above pairwise table depicts that the significance value of SBI-ICICI and ICICI-SBI shows 0.067, which is more than p-value 0.05 and ICICI-CITIBANK and CITIBANK-ICICI shows 0.001, which is less than p-value 0.05.

From the table above the researcher found some data which may affect overall significance of amount of mobile banking transactions of SBI, ICICI and Citibank. Hence, to correct the same, the researcher has conducted the Bonferroni Correction or Bonferroni Adjustment Test. This test is conducted to prevent the overall data from the data, which incorrectly appearing to be significant. This is done by making an adjustment during comparison testing. The researcher has done Bonferroni Corrections as follow;

Table No. 20: Multiple Comparisons - Dependent Variable: Amount of Mobile Transactions of SBI, ICICI and Citibank Post Hoc Tests by Bonferroni Correction

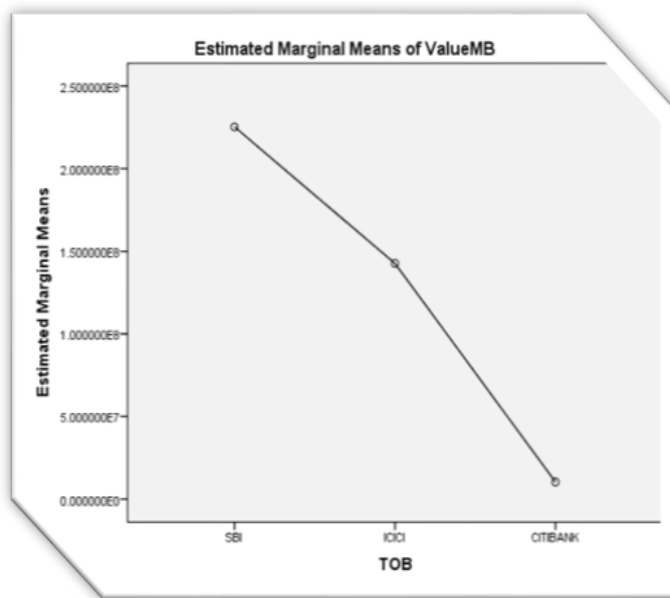
Multiple Comparisons						
Dependent Variable: ValueMB						
Bonferroni						
(I) TOB	(J) TOB	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
SBI	ICICI	82685461.873	36035156.911	.067	-4063627.892	169434551.640
	CITIBANK	214977376.054*	36035156.911	.000	128228286.287	301726465.820
ICICI	SBI	-82685461.873	36035156.911	.067	-169434551.640	4063627.892
	CITIBANK	132291914.180*	36035156.911	.001	45542824.413	219041003.946
CITIBANK	SBI	-214977376.054*	36035156.911	.000	-301726465.820	-128228286.287
	ICICI	-132291914.180*	36035156.911	.001	-219041003.946	-45542824.413

Based on observed means.

The error term is Mean Square(Error) = 66225159213690112.000.

*. The mean difference is significant at the .05 level.

The above Bonferroni Correction table shows that there is no change in Adjusted significance value of SBI-ICICI, ICICI-SBI, ICICI-CITIBANK and CITIBANK-ICICI. Thus, the table above shows that there is a Statistical Significant Mean difference between SBI-ICICI, SBI-CITIBANK, ICICI-SBI, ICICI-CITIBANK, CITIBANK-SBI and CITIBANK-ICICI in the growth of i.e. Amount of mobile banking transactions of SBI, ICICI and Citibank.

Graph No. 2: Estimated Marginal Means of Amount of Mobile Banking Transactions of SBI, ICICI and Citibank

Graphically, the Estimated Marginal Means of Volume i.e. Number of Mobile Banking Transactions can be shown by Mean Plots;

SBI = 225324720.422,

ICICI Bank Ltd. = 142639258.548

and CITIBANK = 10347344.367

Therefore, the Alternate Hypothesis, “There is a significant difference in growth of value i.e. amount of m-banking transactions of SBI, ICICI and Citibank. ($H_0: \mu VLMB_{SBI} = \mu VLMB_{ICICI} = \mu VLMB_{CITIBANK}$) (It is Accepted)

3. There is no association between number and amount of m-banking transactions of SBI, ICICI and Citibank.

To test above hypothesis, the researcher has collected secondary data related to number and amount of mobile banking transactions of SBI, ICICI and Citibank from April, 2011 to September, 2019.

Table No. 21: Variables Entered and Removed: Volume\Number and Value\Amount of Mobile Banking Transactions

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	VolumeMB ^b	.	Enter

a. Dependent Variable: ValueMB

b. All requested variables entered.

The table above represents variable; Volume\Number and Value\Amount of Mobile Banking Transactions of SBI, ICICI and Citibank

Table No. 22: Descriptive Statistics: Volume\Number and Value\Amount of Mobile Banking Transactions

Descriptive Statistics			
	Mean	Std. Deviation	N
ValueMB	126103774.44600981	271396121.640133200	306
VolumeMB	15447071.50000000	35346743.735154875	306

The table above represents Descriptive Statistics related to Mean and Standard Deviation related to Value\Amount of dependent variable and volume\Number of Mobile Banking Transactions.

Table No. 23: Correlations: Volume\Number and Value\Amount of Mobile Banking Transactions

Correlations			
		ValueMB	VolumeMB
Pearson Correlation	ValueMB	1.000	.790
	VolumeMB	.790	1.000
Sig. (1-tailed)	ValueMB	.	.000
	VolumeMB	.000	.
N	ValueMB	306	306
	VolumeMB	306	306

In the table above, a Pearson's Data Analysis shows a Positive Correlation, $r(306) = 0.790$, which clearly states that the increase in number of mobile banking transactions results into increase in amount of mobile banking transactions of SBI, ICICI and Citibank.

Table No. 24: Model Summary: Volume\Number and Value\Amount of Mobile Banking Transactions

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.790 ^a	.624	.622	166775033.909491120	.624	503.691	1	304	.000	1.743

a. Predictors: (Constant), VolumeMB

b. Dependent Variable: ValueMB

The above Model states that 62.40 (0.624*100) per cent of the Dependent Variable i.e. amount of mobile transactions of SBI, ICICI and Citi Bank by the independent variable i.e. number of mobile transactions of SBI, ICICI and Citi Bank.

The Calculated value of Durbin-Watson is 1.734 (it is between 0 and less than 2) indicates Positive Autocorrelation between number and amount of mobile banking transactions of SBI, ICICI and Citibank.

Table No. 25: One-Way ANOVA: Volume\Number and Value\Amount of Mobile Banking Transactions

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14009606498202702000.000	1	14009606498202702000.000	503.691	.000 ^b
	Residual	8455429228395621400.000	304	27813911935511908.000		
	Total	22465035726598324000.000	305			

a. Dependent Variable: ValueMB

b. Predictors: (Constant), VolumeMB

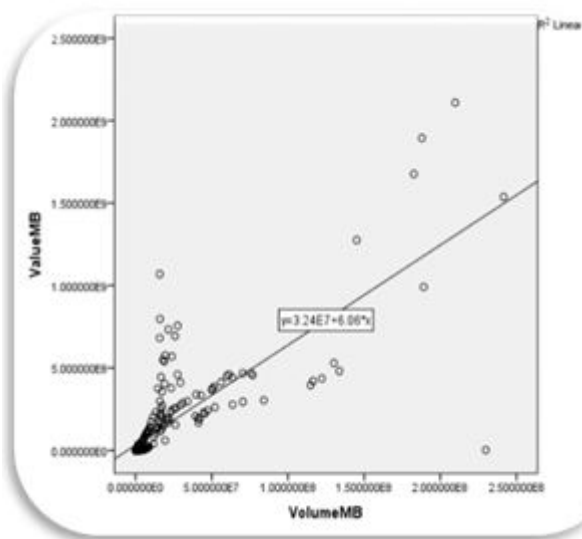
The Calculated Fisher Value $F_{crit}(1, 304) = 503.691$ is greater than its Critical Value 3.8415 (at df1 1 and df2 304) and its Significance Value is 0.000 (i.e. $p = 0.000$), which is less than 0.05, and therefore there is an association between number and amount of mobile banking transactions of SBI, ICICI and Citibank.

Table No. 26: Coefficient: Volume\Number and Value\Amount of Mobile Banking Transactions

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
1	(Constant)	32442557.922	10407277.753		.002
	VolumeMB	6.063	.270	.790	.000

a. Dependent Variable: ValueMB

Graph No. 3: Graphical Presentation of Regression Equation - Number and amount of mobile banking transactions



From the table above and a graph next to;
Following Regression Equation can be formed.
 Y_i = assumed to be amount of mobile banking transactions of SBI, ICICI and Citibank
 b_0 = Constant Value from Table
 b_1 = Dependent Variable Value
 X_i = assumed to be number of mobile banking transactions.
 $Y_i = b_0 + b_1(X_i)$

$$Y_i = 32442557.922 + 6.063(X_i) \dots (1)$$

The above Regression Coefficient shows that for every unit of increase in number of mobile banking transactions of each sample bank, it is expected that the amount of mobile banking transactions increase by 6.063 times in a month.

Table No. 27: Residual Statistics – Mahalanobis and Cook's Distance - Number and Amount of Mobile Banking Transactions

Residuals Statistics ^a					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	32504282.000	1497252352.000	126103774.446	214320171.845	306
Std. Predicted Value	-.437	6.398	.000	1.000	306
Standard Error of Predicted Value	9534159.000	61833980.000	11700445.956	6710962.547	306
Adjusted Predicted Value	32631200.000	1627870720.000	126291162.323	215894895.260	306
Residual	-1424328064.000	940762944.000	-.000000019	166501407.7466	306
Std. Residual	-8.540	5.641	.000	.998	306
Stud. Residual	-9.125	5.650	-.001	1.026	306
Deleted Residual	-1625844864.000	943847808.000	-187387.877	176149086.616	306
Stud. Deleted Residual	-10.690	5.963	-.002	1.091	306
Mahal. Distance	.000	40.930	.997	4.432	306
Cook's Distance	.000	5.890	.031	.351	306
Centered Leverage Value	.000	.134	.003	.015	306

a. Dependent Variable: ValueMB

Cook's Distance: The general thumb rule of Cook's Distance (D_i) is that the calculated value should be 3 times Mean (μ). From the table above, $\mu = 0.031$, times (μ) = $3 \times 0.003 = 0.093$. The calculated value is 0.093 is between minimum and maximum value, which shows that there are negligible amount of mobile banking transactions that negatively affects Regression Model. In other word, there is less number of influential outliers in data set of predictor or variable i.e. amount of mobile banking transactions.

Mahalanobis Distance: Mahalanobis Distance is a measure of distance between two points in Multivariate Space i.e. Euclidean Space. Euclidean Space is a Metric Space – Straight Line Distance between two dataset. For Correlated Values Euclidean Distance \neq MD value. From the table above, MD = 0.997, shows that the amount and number of mobile banking transactions are correlated i.e. Positively Associated.

10. SIGNIFICANCE OF THE STUDY

1. The present research study will be helpful to understand the concept and use of Mobile banking.
2. The present research study will be helpful to examine and analyze the comparative growth of mobile banking of SBI, ICICI and Citi bank.
3. It will be beneficial to the sample banks to identify the areas of mobile banking use in terms of volume and value.
4. It will be beneficial to the sample banks to find an association and predict future transactions.

11. LIMITATIONS OF THE STUDY

1. The present research study has covered mobile banking service only.
2. The present research study is restricted to the growth of mobile banking in terms of volume and value only.
3. Banks other than sample public sector bank SBI, private sector bank ICICI and foreign bank Citi bank, has not been covered in present research study.
4. No exhaustive research has been done so far on the present research area. Hence, the researcher has taken up and done comprehensive study and drawn conclusions purely on the basis of inferences calculated.

12. RECOMMENDATIONS AND SUGGESTIONS

From the present research study, it has been observed that the m-banking is a financial service providing online-on-over the net mobile based platform, immediate substitute to plastic card and a paper currency notes, which helps to reduce the risk of carrying cash and boost up money in digitalization bank customers' convenience.

1. Bank should create awareness about online mobile banking platform.
2. Bank should expand their merchant tie-up for payments and associations. Bank should make synchronization ease with different m-wallets platforms. This helps to push an economy towards digital banking.
3. For every wrong data input for online transactions, reversal procedure should be simplified.
4. Bank should allow use of m-banking for non-core banking transactions too.
5. Bank should increase number and amount of mobile banking for railway ticket bookings, shopping mall, market places and point of sale terminals.

6. Mobile platform should be well networked with bank server, to avail easy and error free access to account.
7. Security concern and anti-hacking measures must be undertaken by banks to promote On-line Transactions using m-banking.
8. The bank should direct their branches in rural and urban areas to have some definite number of mobile banking accounts.

13. CONCLUSION

Mobile banking is a digital advancement; an internet based online banking using smart phone. Further, the technological advancement has given rise to the use of banking services in innovative way. Mobile banking provides convenience not only to m-banking users to access their account and use it but also to the bank to settle transactions immediately and safely without physical contact. Thus, it is the responsibility of the bank to create awareness about online mobile banking platform and its use.

The data related to m-banking use of SBI, ICICI and Citibank, in terms of volume i.e. number and value i.e. amount has been cited, studied and analyzed. The results shows that there is an incremental growth of volume of m-banking transactions of SBI, ICICI and Citibank, which further has increased its use in value. It is observed that the Mean Length of volume of m-banking use of SBI, ICICI and Citibank (**32218466.401 of SBI, 13395828.715 of ICICI and 726919.382 of Citibank; from Graph No. 1 :**) is Statistically Significantly different. The growth and use of m-banking volume of m-banking found to be greater in SBI than that of the ICICI and Citibank. Further, the Mean Length of value\amount of m-banking use of SBI, ICICI and Citibank (**225324720.422 of SBI, 142639258.548 of ICICI and 10347344.367 of Citibank; from Graph No. 2 :**) is Statistically Significantly different. The growth and use of M-banking value found to be greater in SBI than that of the ICICI and Citibank.

The researcher has conducted Pearson's and Durbin-Watson Correlation Test. The result shows Positive Correlation between volume and value of m-banking use of SBI, ICICI and Citibank. The researcher formed Regression Equation i.e. $Y_i = 32442557.922 + 6.063 (X_i)$ and Graphical presentation in Graph No. 3. To test the validity of the Regression Equation, the researcher has conducted Cook's Distance (shows less number of outliers) and Mahalanobis test (shows Positive Association between Volume\Number and Value\Amount). The study concludes with suggestions to and scope for the future research.

14. SCOPE FOR THE FUTURE RESEARCH

1. A similar study can be conducted among selected private sector or foreign banks.
2. A similar study can be conducted on other banking products and services like debit card, credit card etc.
3. A comparative study on other banking products or services in rural and urban area can be conducted.
4. A comparative study on mobile banking other than sample bank in same sector can be conducted.

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PERCEPTION OF INDIAN GAAP WITH IFRS

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ABSTRACT

It is well known that companies all over the world have become more and more internationally oriented during last few years. They create fusion, make investment, and conduct trade and relation over country borders. International Financial Reporting Standards (IFRS) is becoming the global language of business with over more than 40% of the world having moved to IFRS in the past few decades. By last five year, it is expected that all companies in major markets will be using IFRS. The globalization creates an convert their need for communication in the terms of language, awareness of culture differences and owned customs. Moreover the financial communication such as accounting and financial results is just as important for business leaders and employees to master.

Trust and clear led to a discussion of International Financial Reporting Standards (IFRS). Consistent, comparable and understandable financial information is the lifeblood of commerce and making investment. This study tries to the information available on IFRS adoption process in India. It also discusses the study on IFRS in India and the utility for India in adopting IFRS. The paper discuss the objective, structure, benefits, challenges, standards of IFRS and the process of adoption of IFRS in India.

Keywords: IFRS, Convergence, IASB, Regulatory Board and Economic Environment, GAPP.

INTRODUCTION

International Financial Reporting Standards (IFRS) are comparable as a common global language for business affairs so that organizations accounts are understandable and equivalent across international boundaries. They are a consequence if growing international shareholding and trade are particularly important for companies that have decreases in several countries.

They are progressively changing the many different national accounting standards. The rules to be followed by account which are comparable, understandable, reliable and relevant as per the users internal and external.

The IASC issued International Accounting Standard during the year 1973-2001. IASC restructured their organization during the year 1993 - 1997 and come with name and structure as International Accounting Standards Board (IASB) which came into effect on 1st April, 2001. IASB announced its standards in series of pronouncements which come to be International Financial Reporting Standards (IFRS).

However, IASB does not discard the standards development by IASC. Those standards continue to be designated as "International Accounting Standards."

IFRS means the standards issued by IASB and IAS means the standards issued by IASC. Similarly interpretation of standards is issued by Standards Interpretation Committee (SIC) and the International Financial Reporting Interpretation Committee (IFRIC) of the (IASB).

So many nations have adopted it and some are going to adopt IFRS in future. The European country adopted IFRS in the year 2005. Other countries have announced to embrace IFRS in next few years including China and South Korea in 2009, Brazil 2010, and Canada in 2011. As already reported India will adopt IFRS by 2011 because accounting standards used in India have been incorporated into law and hence adopting IFRS would require India to make dramatic legislative changes and concomitant changes to taxation and securities laws.

As of August 2008, more than 100 countries around the world including all of Europe, currently require reporting for all domestic, listed companies according to the U.S. Securities and exchange commission.

WHAT IS IFRS?

- IFRS stands for "International Financial Reporting Standards" and includes International Accounting Standards (IASs) until they are replaced by any IFRS and interpretations originated by the IFRIC or its predecessor, the former Standing Interpretations Committee (SIC).
- IFRSs are developed and approved by IASB (International Accounting Standard Board).
- These are standards for reporting financial results and are applicable to general purpose financial statements and other financial reporting of all profit- oriented entities. Profit-oriented entities includes those engaged in commercial, industrial, financial and similar activities, whether organized in

corporate or in other forms also includes mutual insurance companies, other mutual co-operative entities, etc.

- Upon its inception the IASB adopted the body of International Accounting Standards (IASs) issued by its predecessor and as such IFRS includes IAS until they are become by IFRSs.
- A separate set of IFRS for Small and Medium-sized organisations has been issued by the IASB in July 2009.
- The IFRS for SME presents a simplified set of standards with disclosure requirements reduced, methods for recognition and measurement simplified and topics not relevant to SME's considered.

WHY IFRS?

- IFRS are growing being recognized as Global Reporting Standards for financial statements.
- 'National GAAP' is becoming less.
- As global capital markets become growing integrated, many countries are transferring to IFRS.
- More than 100 countries such as European country, Australia, New Zealand and Russia currently permit the use of IFRS in their countries.
- The SEC has allowed the use of IFRS without reconciliation to US GAAP in the financial reports filed by foreign private sectors, thereby, giving foreign private sectors a choice between IFRS and US GAAP. SEC is proposing that the US issuers begin reporting under IFRS from 2014 (actually from 2012, if requirements for three year comparable are considered), with full conversion to occur by 2016 depending on size of the entity. This is a milestone proposal that will bring almost the entire world on one single, uniform accounting platform i.e. IFRS.

OBJECTIVE OF THE STUDY

The present research works have been undertaken keeping in view the following other objectives:

- 1) To know the conceptual formation of IFRS.
- 2) To know the conclusion of IFRS with regards to practical applicability of IFRS and to know the perception of Chartered Accountants regarding IFRS.
- 3) To know the reporting requirement under GAAP as well as under the IFRS.
- 4) To developed an insight about the global financial reporting language i.e. IFRS.
- 5) For finding the perception about global financial accounting language i.e. IFRS.

INDIA AND IFRS

In India, there will be different set of Accounting Standards–

- The existing Indian Accounting Standards (AS) –will be eligible to all companies which are not required to adopt IFRS converged standards.
- Indian Accounting Standards, as converged with IFRS (Ind-AS) –will be eligible to companies operating in India in phased manner. The date of implementation of the Indian –Accounting Standard is expected to be with effect from Financial Year 2016-17.

There are conceptual differences between Accounting Standard and International Financial Reporting Standard. Keeping in view the extent of gap between AS, Ind-AS and the corresponding IFRSs – conversion process would need careful handling. By introducing a new company Act, the Indian Government has initiated the process to amend the legal and regulatory structure. The changes would involve Impact Assessment, Revisiting Accounting Policies and there after changing the Accounting & Operational Systems (including ERP) in order to be fully compliant with Ind-AS or IFRS.

IFRS IN INDIA

At its 270 meeting the Council of ICAI has decided that public interest entities such as listed organisations, commercial banks, insurance companies and huge-sized organizations to converge with IFRS for accounting period commencing on or after 1 April, 2011. India had committed itself at the G20 summit to converge its Accounting Standards with IFRS in a phased manner starting April 1, 2011. Though India has not accepted the IFRS in 100%, it has converged its ASs to get those in line with the IFRS with certain carve-outs to better reflect the Indian economic and business environment.

In pursuance of G20 commitment, the process of convergence of Indian ASs with IFRS has been carried out by the Ministry of Corporate Affairs (MCA) through huge ranging consultative exercise with all the stakeholders. 35 Indian ASs converged with IFRS (named as “Ind-AS”) and have been mentioned by the MCA and even MCA had expressed the view that India should converge to IFRS w.e.f 1 April, 2011. For Small and Medium size Entities i.e. other than public interest entities, ICAI had proposed that a separate standard may be formulated based on the IFRS for Small and Medium-sized Enterprises issued by the IASB after modifications, if necessary.

With an implement to ensure easy transition to IFRS from 1 April, 2011, ICAI is taking up the matter of convergence with IFRS with National Advisory Committee on Accounting Standards (NACAS) established by the Ministry of Corporate Affairs, Government of India and other regulators including Reserve Bank of India (RBI), Insurance Regulatory and Development Authority (IRDA) and the Securities and Exchange Board of India (SEBI).

INTERNATIONAL ACCOUNTING STANDARDS BOARD

With the view of making the financial statements more reliable and transparent, the London based group namely the International Accounting Standards Committee (IASC), responsible for developing International Accounting Standards was established in June, 1973. Between 1973-2001, the International Accounting Standards Committee (IASC) released International Accounting Standards. Between 1997 and 1999, the IASC restructured their organization, which resulted in formation of International Accounting Standards Board (IASB).

These changes came into effect from 1st, April, 2001. IASB announce its standards in a series of pronouncements called International Financial Reporting Standards.

BENEFITS OF ADOPTING IFRS

- It would benefit the economy by increasing fast growth of international business.
- It would encourage international investing and thereby lead to more foreign capital inflows into the parent company.
- Investors want the information that is more relevant, reliable, timely and comparable across the jurisdictions.
- IFRS would enhance the comparability between financial statements of various companies across the global.
- Better understanding of financial statements would benefit investors who wish to invest outside their parent country.
- The industry would be able to raise capital from foreign country at less cost if it can create secured in the minds of foreign investors that their financial statements comply with globally accepted accounting standards.
- It would reduce different accounting requirements prevailing in various countries there by enabling enterprises to reduce cost of compliances.
- It would provide professional facilities to serve international customers.
- It would increase their mobility to work in different parts of the world either in business or practice.

IFRS CHALLENGES

• Amendments in the Law

Unlike several other countries, the accounting framework in India is deeply affected by laws and regulations. Changes may be required to various regulatory requirements under The Companies Act, 1956, Income Tax Act, 1961, SEBI, RBI, etc. so that IFRS financial statements are accepted commonly.

• Impact on financial experience

Financial reports will knowledge a lot of changes. For example treatment of depreciation differs. Hence, the value of assets as well the profitability of the organization may change, which, in turn, may impact the net assets value.

• Complexities

Many people are yet not aware of IFRS, their complexities and impact. A change in the reporting format will require awareness of these new rules and regulations, training and education, both for the professional as well

the customers. If IFRS has to be uniformly understood and consistently joined all stakeholders, employees, auditors, regulators, tax authorities, etc would need to be trained.

- Entity would need to incur increasingly price for modifying their IT systems and procedures to enable it to collate analysis necessary for meeting the new disclosures and reporting requirements.
- Increase in price initially due to dual reporting requirement which entity might have to meet till full convergence is achieved.
- Differences between Indian GAAP and IFRS may impact business decision /financial soundness of an entity.
- Less pool of trained resource and persons having proper knowledge on IFRSs.

DATA ANALYSIS

(1) GENDER AND PERCEPTION FOR IFRS

SR. NO	GENDER	NO. OF RESPONDENTS	PERCENTAGE
1	MALE	73	73%
2	FEMAIL	27	27%
	TOTAL	100	100

The above table express that genders of respondents 82% are male and 18% are female from total respondents

(2) AGE AND PERCEPTION FOR IFRS

SR. NO	GENDER	NO. OF RESPONDENTS	PERCENTAGE
1	21-30	73	73%
2	31-40	9	9%
3	41-50	9	9%
4	51 or above	9	9%
	Total	50	100

The above table expresses the classification of age of respondents and it clearly shows more than 70% respondents under the age group of 21 to 30 years categories. 9% respondents are under the age group of 31 to 40. 9% respondents are under the age group of 41 to 50. 9% respondents are under the age group of 51 or above.

CONCLUSION

The International Financial Reporting Standards (IFRS) aims to make International Financial Reporting Comparisons as easy as possible because each country has its set of accounting rules, over the years the use of IFRS has emerged as widely used and accepted standards in the world with more than 14000 companies and over 100 Countries accepting and mandating its implementation. At presents India aim to be joining IFRS club from the financial year 2011 to include, all listed companies, all banking companies, all financial institutions, all scheduled nationalized banks, all insurance companies and all NBFC.

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CASH AND CASHLESS ECONOMY- CHALLENGES AND OPPORTUNITIES

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ABSTRACT

Cash Economy means an economy system, in which financial transactions are carried out in cash.

India uses too much cash for transactions rather than via Debit card, Credit Card, Net banking, Bank Transfer etc.

Cashless economy is an economy where maximum transactions are done with the help of Digital means likes Credit Cards, Debit Cards-wallets and electronic fund transfer (ECS, NEFT, RTGS, USSD, Aadhar based payment system etc.

India faces many challenges in setting up a cashless economy like lack of digital and banking infrastructure, cyber security and financial literacy, high cash dependency etc.

Finance Minister, in 2016 budget speech, talked about the idea of making India a cashless society.

The major benefits of cashless economy in India are reduced tax avoidance and money laundering, reduced costs of printing money etc.

It is the economy that run mostly on plastic or digital money and thus with minimal cash or money in paper form.

Keywords: Cashless economy, Demonetization, Digital wallet, e-payment.

INTRODUCTION

Cashless Economy is a one of the trending and emerging concepts, which is regarded by eminent economists as the best form of modern economy. Cashless economy is an economy, which performs all its transactions using plastic money or through the digital means. The recent step of demonetization of Government aimed at fourfold attack on counterfeit currency, currency used for terrorist financing accumulated black money and corruption. In addition, RBI recently unveiled its document on "Payments and settlement systems in India: Vision 2018" aimed at making India a cashless economy. Not only this, our eminent Prime Minister is working tremendously towards his more of Digitization (Digital India). Thus, both of these more of demonetization and digitization if worked upon effectively can act as a catalyst in making India a cashless economy.

RESEARCH METHODOLOGY

Secondary Data – Secondary data are collected through web-based search engines, Published literatures. Articles, journals and Survey reports, Research data and website information.

OBJECTIVES OF STUDY

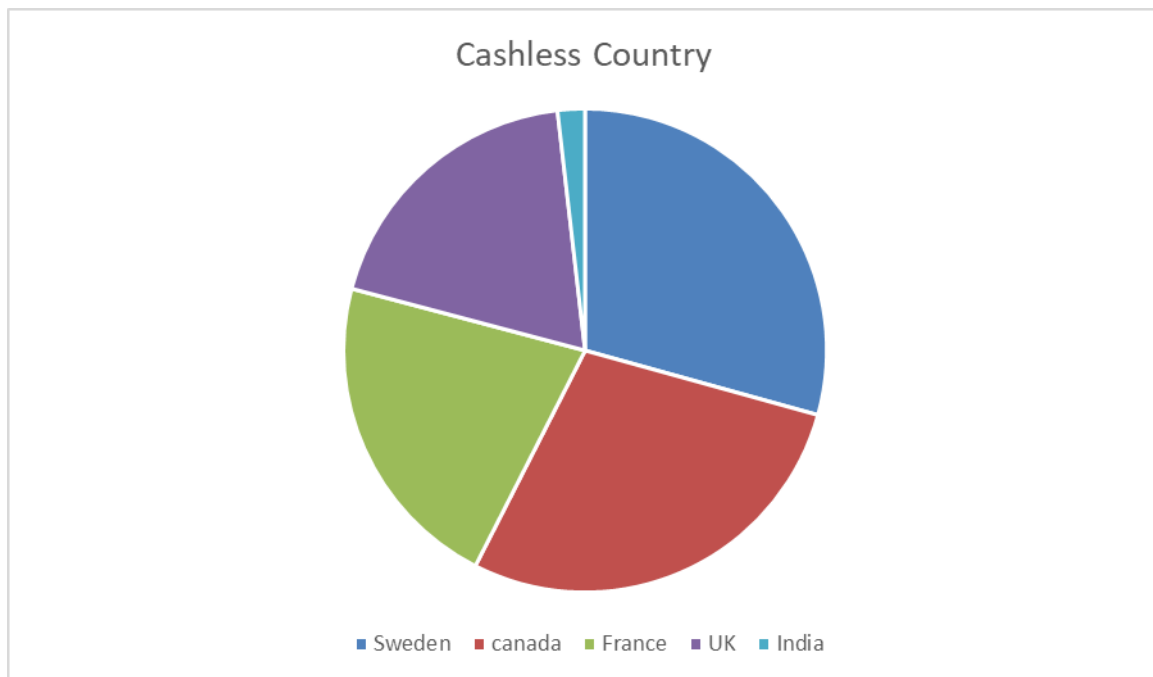
The main objective of the study is to examine that the importance of cashless policies in the economy of a country and how it affects to their economic growth. Specifically the objective of this study includes:

- 1) To find out the status of India in comparison of other countries in terms of cashless economy.
- 2) To study the various challenges and opportunities of India become a cashless economy.
- 3) To study the initiative taken by the government towards digital economy in India.
- 4) To suggest the future prospects of cashless India.

REVIEW OF LITERATURE

Jain, P.M (2006) in their article "e-payment and e-banking an analysis of Growth Pattern of cashless transaction system."

Taking advantage of technology, Quick payments and remittances will ensure optimal use of available funds for banks, financial institutions. He also printed out the need for e-payment and modes of e-payment.



- 1) In the last year, about 80% of Swedes use a card to pay for a recent purchase. First cashless country is Sweden.
- 2) Canada is the top country in the world embracing cashless technology, approximately 77% of people prefer to use their debit/credit cards to pay bills or make purchases.
- 3) 59% of France and 52% of UK people prefer cashless transactions.
- 4) India has long been a cash economy. Until November last years, nearly 95% of transactions were conducted in cash, with nearly 90% of merchants unable to accept any other form of payment.

CASHLESS CHALLENGES IN INDIA

There are many challenges facing the introduction of cashless system of payment in Indian economy.

There are as follow:-

- **Low literacy Rate:** Citizen should not only know how to read and write but also possess basic ICT literacy to fully enjoy the benefits of e-payment.
- **High Cash Dependency:** India has a high cash dependency in almost all of its transactions that happen. Total cash flow in the market accounts for 12.04% of the GDP, which is among the highest in developing countries.
- **Lack of Digital Infrastructure:** Poor infrastructure is again a hurdle in setting up a cashless economy. Inefficient banking systems, poor digital infrastructure, poor internet connectivity. The remote areas are still not having the bank at their doorstep. There are no ATM facilities in the remote areas.
- **Financial Inclusion:** About 60% of the country's population has bank accounts. Still large number of people is not having the bank account. More than 228 million accounts were open under PMJDY (Pradhan Mantri Jan Dhan Yojana) Scheme until July 2018.
- **Cyber Security Issues:** Another challenge in digital payments is cyber security issues; the risk of online fraud, leakage of confidential information, cyber – crimes, malware and virus attacks has been rising.
- **Costly swipe Machines:** Swipe machines are also not subsidy free. Rich shopkeepers can only afford it. It cannot be expected from an auto driver or a normal grocery seller to afford swipe card machines. Besides, many street vendors, and shopkeepers do not know how to use swipe machines.
- **Few Banks in villages:** There are several villages and Tehsils that do not even have a bank. More the banks, more the cash deposits in accounts. Banks in villages should be helpful in teaching the residents the process, usage and benefits of plastic cards.

OPPORTUNITIES OF CASHLESS ECONOMY

- **Transparency:** It is not just the easiest way to transact but also brings about a lot more transparency in the financial system, which helps to curb generation of black money.
- **Reduced Red-tapism and Bureaucracy:** With cashless transaction, the wire transfers are tracked and people are accountable which in turn reduces corruption and improve service time.
- **Reduce cost of printing money:** Printing money is the direct cost that affects the bank. In the cash system of economy where maximum people will work on the cash transaction, government has to produce more and more cash notes.
- **Decrease crimes:** The risk of theft will continue until people carry cash and by going cashless, the same can be reduced. The government, however, has to take measures to curb the online scam and identity theft incidents.
- **Safe and secure:** It is safe for bank and customer as well, it keeps high degree of secrecy. If stolen, it is easy to block a credit card or mobile wallet remotely.
- **Higher Revenue:** An advantage of transparent transactions is collected of tax will increase. Thus generating higher revenue for the government, this in turn will be converted into public welfare policies and schemes.
- **Saves Money and time:** Currently banking institution is required good number of staff to attend and redress the complaints at different stages. They can reduce costs, as they no longer need the manual accounting work to be done.
- **Maintenance Cost:** Maintenance in the form of storage of notes, transportation of the notes to the distant places, security of the notes and devices for the detection of counterfeit notes. The other major aspect of the maintenance is that the distribution of money through ATM machines at the different locations. It is reported that all this maintenance cost the govt. about 50% of the GDP of India. We can save around 500cr by this mean only.

SUGGESTION

A summary of suggestion on the improvements of cashless economy, we need studied are as follows:

1. People should be educated adequately. The use of cards in the should be described to the people so that they can easily use the card.
2. Proper infrastructure should be developed in the remote areas so that this facility should be taken to the rural and remote India.
3. Abolishment of government fees on credit card transactions reduction of interchange fees on card transactions.
4. Tax rebates for consumers and for merchants who adopts electronic payments.
5. Buyers and sellers both should be made aware about the benefits of the cashless transactions.
6. There is a need for the regulatory authorities to ensure that the policy was properly enforced.

CONCLUSION

The move from cash to cashless economy in India is immense. It have lot of advantages in cashless transaction, it will save a huge amount of money that is spend annually in printing and maintaining currency. The arrival of Malls, Multiplexes, online shopping stores and shopping complexes encourage the customers to make use of plastic cards. The government should take the necessary steps and make some policy considerations when they are preparing for a cashless economy. The payments have to be protected from the cyber-attacks. Going cashless gives a lot more benefits than just convenience to people, business and the government in particulars. Increasing use of electronic payments boosts consumption and GDP. This move by the government along with the implementation of the GST will definitely make the system more accountable and efficient.

**TO STUDY THE IMPACT OF DIGITALIZATION IN BANKING SECTOR IN INDIA WITH
SPECIAL REFERENCE TO THANE**

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ABSTRACT

The changing technological environment is demanding the change in every sector which has brought major changes in the banking sector as well. Banks are looking at new ways to connect with the huge customer base by the use of mobile applications and mobile marketing which will also help in providing value-added service to customers and increase revenues by charging nominal fees for the service. Today banking environment has undergone tremendous change due to the infusion of innovative practice like internet banking, in almost all the banks in India. Thus the author has chosen the area of banking sector focuses mainly on the role of digitalization in banking specifically in India. The author tried to study the trends in Indian banking system. The paper also put light on studying the relationship between banking sector and product innovation. The paper also focuses on consumer's perception on the digital banking system and how advancement in technology continue to transform the lives of banking customers. For the purpose of study author used both the primary and secondary data collection method. The study of role and trend is based on secondary data whereas for consumer's perception analysis she has used primary data collection method. This is an attempt of an author to bring up with the better mix of high-tech and high-touch to be able to satisfy customers.

Keywords: Product Innovation, Digitalization, Trends in banking sector, online banking.

INTRODUCTION

Banking sector is one of the largest growing sector in Indian economy and after globalization foreign and private banks was allowed to enter in the sector which led to increase in competition. The technological changes demanded the changes in Indian banking system which brought the digitalization in Indian banking system on a large scale. Electronic transactions are adopted rather than using tradition and conventional banking system. This was the difficult time for Indian banking system to maintain their customers and deliver the services by using the traditional banking system as other banks were turning themselves into fast growing digital banks which provides quick and quality service to their customers RBI introduced the information Technology and various stages of banking structure and made it mandatory for the banks to use electronic banking. The Pioneering Work of Dynamism Began After 1990's With Globalization of Indian. In order to implement the various recommendation forwarded by the committee in connection with the banking reforms, the Indian focuses on the need for implementing the online banking in the banking sector.

REVIEW OF LITERATURE

Hadi Bagheri, Seyyed Javad Iranban & Hamed Kazemipour (2014) in their paper focused to designate the relationship between perceived security and trust in internet banking. The statistical data was collected by primary data collection method. The result of study of the effect of perceived security in accepting online banking.

Yitibarek Takele & Zelekesira (2013) in their study analyzed factors that influence customer's perception to use e-banking service channels. By using six variables the findings drawn was that attitude, subjective norm, perceived behavioral control & usefulness, perceived ease of use and risk were significant in affecting user's perception in using e-banking services.

Azouzi, D.(2009), in his paper focused that the prompt and current technological revolution changing the whole world has crucial impacts on banking sector on the Tunisian. This study helps to understand the consumer's behavior regarding the adoption of e-banking. For this purpose author used empirical research. The study shows that despite the presidential incentive and in spite of being fully aware of the E-banking benefits, various respondents are still using traditional banking.

OBJECTIVES

1. To study the Role of digitalization in banking in India.
2. To study the digital banking trends in India.
3. To study the consumer's perception towards digital banking system.

RESEARCH METHODOLOGY

The methodology adopted to collect the data was both primary and secondary data collection method. For studying the consumer's perception primary data was collected by preparing the designed questionnaire on the basis of the parameters of service quality scale a relevant to the study. Both short answer and multiple choice questions were asked. Convenient sampling was used and the sample respondents were to give responses to various question asked and non- parametric chi-square test was used to analyze the data collected on consumer's perception on service quality. Likert-style rating scale. In another words, respondents were asked how strongly they agree or disagree with a series of statements related to mobile service quality, mobile technology and trust. A five-point Likert scale was utilized in this part, with 1 meant extremely disagree and 5 meant extremely agree.

Secondary data collection was used to study the role and trend of the digitalization in banking system in India. The scope of the study was thane region from where the private sector bank ICICI and public sector bank SBI customers were selected as a respondents. The questionnaire was asked to 100 customers out of which only 85 respondent answered the questions rest were not willing to answer.

LIMITATIONS

The limitations faced by the researcher in this study is the time period required to study the consumers perception a s collecting the primary data from all banks customers was not possible in the stipulated time and also the area covered for the purpose of study was only the thane region so the conclusion drawn can be applied to the respective area only. One more thing was that only one private and one public sector bank was undertaken for study purpose.

ROLE OF DIGITALIZATION IN BANKING IN INDIA

The major benefits of digitalization can be seen in banking industry. The banking sector has improved its efficiency in providing various services like electronic fund transfer, electronic clearing services, NEFT, RTGS, IMOS, Mobile banking, Bill Desk etc. the baking sector came up with many services at consumers door step and made banking available on their fingertips. The digital channel has been used by 47% bankers as a medium of betterment of customer relationship while 44% bankers feel this channel would help them stay ahead of competition. Digitalization in banking sector is inevitable as it is the need of the today's dynamic world where customers are becoming techno savvy. And because of this banks are able to reach large number of customers.

The digitalized banking sector provides many advantages like improved customers experience, there is less of human error and duplication of work can be reduced, there is no inequality as technology doesn't follow discrimination, reduces overall cost for banks and customers as well by using ATMs, cashless transaction etc, productivity increases, helps in increasing transparency and reduces black money circulation in economy, tax evasions which is one of the serious problem of government digitalization proved to be an effective method of reducing tax evasion.

1. Automated teller machines (ATM) were introduced to the Indian Banking industry during 1987 by HSBC Bank in Mumbai. Now the ATMs are equipped with modern technologies and facilitate various features for its customers which includes Bill payments, ticket booking, Mobile recharges, Ubiquitous multifunction, ATMs biometric, Multilingual ATMs and ATM network switches (Automatic Teller Machines Market) is expected to garner \$21.9 billion by 2020, registering a CAGR of 7.7% during the forecast period 2015-2020.

Source: Edelweiss IB Estimates

2. Card based system: Among the Card based delivery mechanisms for various banking services, are Debit Cards and Credit Cards in January 2018, the number of debit cards increased to 846.7 million, with 4.23 million new cardholders, while a total of 36.24 million credit cards were in operation, with the addition of 0.7 million cards, according to the Reserve Bank of India. Between January 2017 and January 2018, India added some 7.39 million credit cards and 28.72 million debit cards.

3. Electronic clearing service: Electronic clearing of funds from one center to another for handling bulk transactions like salary, interest, dividend, commission etc., has dispensed the cheques. A part of electronic clearing service is computerized clearing of cheques at metropolitan centers and linking with international communication system of SWIFT

- The volume of paper clearing had been persistently showing negative growth throughout the year 2017-18 compared to the positive growth in 2016-17.
- NEFT volumes had showed an impressive increase in 2016-17. It continued to grow in 2017-18 albeit a slower pace.

- **REAL TIME GROSS SETTLEMENTS (RTGS)** The introduction of RTGS in 2004 was instrumental in the development of infrastructure for Systematically Important Payment System (SIPS) and it settles all interbank payments and customer transactions above 2 Lakhs.

4. Bharat Interface for Money (BHIM): Bharat Interface for Money is a mobile application that enables simple, easy and quick payment transactions using Unified Payments Interface (UPI). Instant bank-to-bank payments and Pay and Collect Options are facilitated using just Mobile number and Virtual Payment Address (VPA). The application was launched by NPCI. **BHIM Aadhaar Pay** was launched by government of India on 14th April, 2017 as a merchant based mobile application for accepting payments from customers.

- Mobile payments are expected to grow from US\$10 billion in FY18E to US\$190 billion by FY23E.
- The Digital Payment ecosystem in India is undergoing a transformation with the entry of global tech giants like Google's payments app that are acting as aggregators for retail transactions.
- Paytm – which has 7 million merchants – now becoming a bank and post the launch of Google Tez and PhonePe, which are also focusing on merchant payments, a steep rise in digital payments could be expected.
- Transactions relating to IMPS, PPI and Debit card had exhibited growth rates in triple digits in the year 2016-17. This growth trend however has slowed down in
- 2017-18 and all these instruments exhibited double digit growth.
- UPI has grown multi-fold in the year 2017-18 and touched 915.2 mn transactions in 2017-18. This instrument had minimal presence in year 2016-17.

Source: Edelweiss IB Estimates

DATA ANALYSIS AND INTERPRETATION:

Table-1: Distribution of Respondents by Gender, Age and Usage

Questions asked to 190 people		Frequency	%	Diagrammatic representation
1. Gender • Female • Male	Male	100	52.63	
	Female	90	47.36	
2. Age	18-24	50	26.33	
	25-40	90	47.37	
	41-55	37	19.48	
	Above 55	23	12.12	
3. Education	Primary	30	15.79	
	Secondary	40	21.05	
	Graduation	95	50.00	
	Illiterate	25	13.16	
4. Do you use E-banking ?	YES	155	81.58	
	NO	35	18.42	

Table-2: Consumer's Perception on the use of E- Banking Service and Quality of Service

Questions	Number of Responses (190)				
Manual Banking is more convenient than Internet Banking.	Strongly Agree (38)	Agree (95)	Neutral (24)	Disagree (20)	Strongly Disagree (13)
How you perceive Internet Banking System?	Complicated Technique (90)		Difficult accessibility (45)	User Friendly (55)	
Degree of confidence on e- banking.	Very Less (12)	Less (36)	Not at all (17)	High (85)	Very High (40)
Which one is the main reason for you to use e-banking	Better Information (20)	Simplification of Process (56)	24 hour Service (40)	Prompt Service (74)	
Which type of service mostly you use? (only 1 st three mostly used to be selected)	(a) Balance and transaction history search				(74)
	(b) Online fund transfer				(45)
	(c) Card to card fund transfer				(20)
	(d) Open FD				(24)
	(e) Lock / activate debit cards /ATM				(28)
	(f) Request a cheque book				(25)
	(g) Stop payment				(28)
	(h) Railway pass / ticket				(43)
	(i) Shopping				(46)
	(j) Share payment				(28)
Are transactions through internet secure?	Very much (35)	Much (59)	To Some extent (31)	Little (28)	Not at all (37)
Do you experience improvement in Quality of services while doing E transaction	YES (116)		NO (74)		
Satisfaction as a user of E banking Services	YES (124)		NO (66)		

ANALYSIS

As the survey has been done among 200 people from whom only 190 responded. Among them approx. 52% were male and 47% were female. The larger section was between 25-40 years. The usage of digital banking has increased by 82%. There are more number of people agreeing that the manual banking is more convenient for them i.e around 55 % and respondents also face difficulty in following the complicated techniques. On the other hand around 45% respondents have the confidence on e- banking services. The data also shows that 74% respondents are using e-banking service because of prompt service provided by the bank and they save their time of travelling and can their work done from anywhere any place. Maximum use of e- banking service is done for Balance and transaction history search, online fund transfer and Shopping these are the top three usage of the respondents. The user says that internet transaction are having average level of security. Majority of the users i.e. 61% agree on that the banking sector has improved their e-banking service quality. Last but not the least it can be seen from the data that around 65% of the e-banking service user are satisfied with the service provided by the banks.

CONCLUSION

There are various factors considered for study and it was found that there is need to focus on the customer's satisfaction. Firstly the quality of service plays an important factor for meeting customer satisfaction. Almost 65% of the respondent is satisfied with the quality which is positive sign and there is rise in consumer satisfaction but attempt should be made to bring more improvement in the quality of service as 2/3 of the customer base is still not satisfied with quality of the e-banking services. Secondly the factor of trust is important people are not much in favor of e-banking service for monetary transaction for which the quality, safety and security needs to be taken care of. Lastly e-banking services is dependent on technology, user are finding it difficult to use the services as they are complicated and needs digital literacy. The area requires

attention which will help to gain customer satisfaction. All said and done, with the growth in banking sector and other e-banking services, the future of banking sector is bright, provided the quality of e-banking service providers convince the users that it is a safe, handy, time saving and cost-effective way of transacting in the modern era and also providing the basic knowledge about the use of different applications by organizing workshops or seminars.

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MOBILE COMPUTING

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ABSTRACT

Time and Trend has its own significance to build the technology smarter, better and easier to the end user. To the Better stretch of the Information Technology, the Innovation and renovation has changed computing approach to the next level. In this paper, we try to give the glimpse of the contextual virtual cloud storage in the public data distribution in terms of the Database in the virtualized Data Storage. These days cloud storage become common, but having the constraint towards the technical advancement is the Security. If we consider behavioral aspect of the cloud storage, we will come across much aspect. Hence, In this one we have overcome the public protection in terms of the privacy towards the authorization of public audit, which we call it as the best to the trend of the acknowledgement based identification with the cryptographic model where ever the node to the parallel cloud distributed elastic stretchable environment with the high end cloud data center marinating the graphics of the flow triggering the security in the public Domain. Considering all the aspects ; the classical Database and these days database has its own advantage to make overcome the hindrance to make the scalability, performance , efficiency and at the end the security is the major which the no-sqlite like Cassandra can overcome.

I. INTRODUCTION

Cloud Cover trusts the cloud platform. Clouds can attain suitable trustworthiness through trust management, replication, virtualization, and a variety of other technologies not typically available to mobile devices and other, stand-alone, cloud-assisted machines. Privacy preservation of computation results is beyond our scope. For such protection, we refer the reader to numerous related works on that subject, including Anonymous-Cloud; secure multiparty computation, and differential privacy. Proof validation through checkpoint chaining engenders a natural trade-off between assurance and computational expense through spot-checking. A spot-checking alidated recomputed and checks each segment in the checkpoint chain with probability p . This reduces the total computation cost to a fraction p of the total, and detects erroneous computation results with probability. This is necessary for the checkpoint equivalence. Cloud Cover therefore extends Java Continuation class with an equal's method that compares two suspended program states for semantic equivalence.

Thus, clients may tune parameter p in accordance with their desired level of assurance and the expense of cloud computing time. Although Java supports suspension and resumption of computations via continuations, it does not support continuation equivalence-checking.

II. RELATED WORK

Cloud Cover proofs have the advantageous quality that the task of verifying them can be parallelized almost arbitrarily even when the original computation is not parallelizable. Thus, they derive maximal benefit from massively parallel architectures, like clouds. To demonstrate, we implement Cloud Cover for Hadoop Map Reduce , and use it validate non-parallelizable Java computations for message digest generation using SHA- 1 (National Institute of Standards and Technology, 1995) and MD5 cryptographic hash functions. Experimental results indicate that Cloud Cover scales extremely well, with the only practical limit to parallelization stemming from the fixed overhead of dispatching new mappers and reducers. The checker is deployed on a Hadoop (Apache, 2013) cluster consisting of 6 Data Nodes and 1 Name Node. Node hardware is comprised of Intel Pentium IV 2.40, 3.00GHz processors with 2{4GB of memory each, running unix operating.

Java was installed and configured on each Data Node in the Hadoop distributed environment, making it available to distributed jobs. We implemented a mechanism for reading and writing checkpoints for map in Hadoop in an appropriate file format for equality-checking with Java. LZO compression was applied to all Hadoop file transfers to minimize transfer and storage costs. For trusted and trusted components of Cloud Cover, we use standard desktop computers with configurations similar to the individual cloud nodes above. For experiments, we select two non-parallelizable cryptographic.

III. METHODOLOGY

Technology has its own significance at the time when people having the extension for the more and more research and it's from Abacus to today's' cloud Computing. In the context of revolution of technology and its great advantage to its social, behavioral and other technical aspect where we come across the best of the cloud to province the virtual global village as the global world. In order for an attack against Anonymous Cloud to

succeed, the manager or master node (or both) must be malicious. Managers are the only principals that receive decryptable access tokens or credentials, and all other communications involving pseudonyms and data are conducted via Tor circuits having the master node as the only un-trusted endpoint. Managers are separate from CPs and have a much smaller attack surface because they do not process customer-submitted computations. Our experiments therefore assume that managers are trusted, but that master nodes are always malicious. In addition, we assume that a percentage p of slave nodes are also malicious and collude with the malicious master node in an effort to violate privacy. Aside from verifying checkpoint chain segments in parallel, we additionally parallelized the checkpoint equality checking procedure in our implementation. Continuations are stacks that can be partitioned arbitrarily into sub-stacks that can all be checked in parallel for equivalence. We implemented this for Java by introducing a continuation compare method. During comparison, instead of equality-checking each pair of objects inside the checkpoints, a map can redirect them to other map by submitting new jobs in Hadoop. The advantage is that if any individual checkpoint-pair is extremely large (e.g., very large stacks), then the checkpoint equality-checking job can be parallelized to compensate. In our experiments, the stacks are not that large, so this feature went unexercised.

Therefore, using this approach not only the security and privacy concerns of cloud consumers can be addressed more effectively, but also the burden of managing end-users' identities and fine-granular access control will be reduced from cloud service providers. Unfortunately, all of these approaches require a significant redesign of most software. For example, typical Android apps are not easily modified to contain inextricable, secret computations or cryptographically verifiable compositions. Two states are equivalent if they consist of equal-length stacks whose corresponding slots contain equivalent values and objects. Deciding such semantic equivalence is non-trivial in general; for example, the states may contain objects with private fields to which the continuation object lacks access, or they may include fields whose values are semantically equivalent but non-identical. Fortunately, all Java objects have their own `equals` methods, which encode an object-specific notion of semantic equivalence.

3.1 Evaluation and Analysis

As a result, few mainstream mobile computing devices have adopted these technologies. Moreover, many of these solutions rely on software obfuscation, which does not provide rigorous guarantees, since clever attackers can potentially reverse the obfuscation the sharp increase in communications overhead potentially invites denial-of-service attacks by customers who request unreasonably long circuits. Recall that master nodes can report computational expense information associated with anonymous jobs to managers by labeling it with the encrypted ownership data they received during authentication.

We therefore recommend incentivizing reasonable values of k by charging customers proportionally to the communications overhead incurred by their demanded level of privacy. This allows the master node to report the expense without knowing the identity of the customer. Managers may also want to impose a mandatory upper limit on k during authentication to further control congestion.

IV. CONCLUSION AND FUTURE WORK

Cloud computing is an emerging paradigm which its cost-effectiveness and edibility have given it a tremendous momentum. In this paper, we try to put forward the concept of the cloud in the aspect of the privacy preserving towards the public shared node data. It may lead to the extent of the cloud with the variant of the most suitable technological advancement of the recent solution. In the Public shared cloud computing where the data passed through the network which needs to be robust, secure and highly preserved in the sense no one can replicate the data while reaching to the next node data. It may lead to the extent of the cloud server? Hence, we can make the sense of the cloud for the further research oriented making the global world as the data can be secured in the cloud architectural designs model of the Data center. However, there are many security challenges that, if not addressed well, may impede its fast adoption and growth. This dissertation primarily addresses the problem of sharing, managing and controlling access to sensitive resources and services in an integrated cloud environment. The primary conclusion of our research is that adoption of user-centric security models and shifting certain parts of communication and computation to the client side allows us to provide the cloud consumers with more visibility and control over their resources.

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PROMISE QUALITY, COMPROMISE ALL OTHERS

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KR Builders, established in 2002, is a small construction firm, with five employees on roll. The employees are engaged in civil works of the firm. The sole proprietor of the firm, Mr. Thomas personally deals with planning, finance, purchase, transport, site visit and clientele of the firm.

Being a small firm, he does not keep more people on roll permanently and outsources electrical, plumbing, painting and carpentry works to others. He handles only three to four medium size projects at a time to manage the business with the available resources.

He gets payments from the clients part by part before commencing different stages of work. He is fond of quality everywhere from materials to construction. He enjoys building a house as if he is building his own house. He takes personal pride and care in each and every thing towards highest satisfaction of his own as well as his clients. Though some works can be done in parallel, he has the practice of doing one-at-a-time.

Based on the need, the works are scheduled and resources are allotted. Workers are informed to go to various project sites to carry out the allotted work as per the schedule. Since most of the jobs are done by outsiders, who are engaged in their own other job works also as well as not on roll, sometimes a few are unable to go to a few sites as per the firm's schedule. Hence such individual works get delayed, other works in the flow also get delayed in the site and as a whole everything becomes messy in few more sites also; and the completion of the projects gets delayed.

If Mr. Thomas enquires the workers for being not on schedule, they may not turn up. When they come back, he is assigning more works to them to catch up with the schedule to satisfy the clients. But, they are not willing to take up more works and drag the assigned works also. In turn, he pays less for them. So, they are also not happy with Mr. Thomas.

Though the clients are satisfied with the work he performs, they are unhappy due to project schedule overrun. He is unable to answer them. Since the works are incomplete as per the schedule, a few clients hesitate to pay for next stages.

As a whole, Mr. Thomas is unable to manage the workers, clients and projects.

QUESTIONS

As a practicing manager,

1. Analyse the case and list down the problems identified.
2. How would you help Mr. Thomas to come out from his problems?
3. Narrate what management concepts are applied to sort out the issues.

Utility of Unnab (*Ziziphus sativa* Gaertn) in Unani System of Medicine**Fouzia Bashir**

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ABSTRACT

Unnab (Ziziphus sativa Gaertn) is one of those herbal plants which have a long history of usage as a fruit and also as remedy in some diseases. According to Unani literatures, it has nutritional as well as therapeutic values, thus it is one of the herbal nutraceuticals. Its fruit, seed, leaves and bark are used traditionally for treatment of various diseases such as fasad-e-khoon (blood putrefaction), hiddat-e-khoon, chest pain, burning micturition, chronic ulcer etc. The fresh and dried, both ripe fruits of Unnab contain carbohydrates, proteins, many vitamins and minerals. Its phytochemical constituents are Vitamin C, alkaloids, glycosides, flavonoids, terpenoids, phenolics and polysaccharides. Research studies showed its pharmacological activities like antioxidant, immunomodulatory, anti-inflammatory, antiulcer, antiallergic, antifungal, antidiarrhoeal, antidiabetic and wound healing activities etc.

Keywords: *Unnab, Fasad-e-khoon, Blood purifier, Unani.*

INTRODUCTION

Globally, it is realized that use of allopathic or synthetic drugs for longer duration is not safe with some exceptions. For this reality, the medical fraternity as well as ailing mankind at a large is looking for alternatives from natural sources to fight diseases, particularly those wherein conventional allopathic system of medicine has little to offer (Anonymous, 2009). Traditional and complementary systems of medicine especially Unani medicine has been found very effective in fulfilling the health care and in treatment of chronic diseases such as hepatic diseases, arthritis, respiratory diseases and skin diseases etc (Anonymous, 2009). It is also gaining trust of people worldwide. Moreover, indigenous household cures for common ailments should find a proper place in our national health endeavor, especially in those fields or those ailments where allopathic medicine has not yet provided sufficient relief. Greater use of indigenous therapeutics will also help us to combat the increasing cost of modern health services.

Ziziphus sativa known as Unnab in Unani medicine belongs to the family Rhamnaceae and is widely used in traditional systems of medicine as fresh or dried ripe fruit. It is a shrub or small deciduous tree, upto 12m in height, sometimes a large bush, found both cultivated and naturalized (Anonymous, 1976). Unnab or Ber is used as edible fruit and also used medicinally in traditional system of medicine including Unani system. Medicinally, it is used as an expectorant, stomachic, digestive, laxative, blood purifier and anti pruritis. Scientific studies showed that it contains various chemical constituents such as sativanine-C, sativanine-G, sativanine-E, sativanine-H, sativanine-F, sativanine-D, sativanine-K, sanjoinine, franguloin and amphibine-D. Several pharmacological studies also revealed its various pharmacological actions such as antioxidant, anticancerous, antianxiety, immunostimulant, antiinflammatory, antiulcer, antiallergic and antiobesity activities, and many others are yet to be explored.

Scientific classification (Plants, USDA, 2017)

Kingdom	Plantae – Plants
Subkingdom	Tracheobiont-Vascular plants
Superdivision	Spermatophyta – Seed plants
Division	Magnoliophyta–Flowering plants
Class	Magnoliopsida – Dicotyledons
Subclass	Rosidae
Order	Rhamnales
Family	Rhamnaceae – Buckthorn family
Genus	<i>Ziziphus</i> Mill. – Jujube
Species	<i>Ziziphus sativa</i> Lam. –Indian jujube

Vernacular Names/ Synonyms (Anonymous, 2006; Anonymous, 2013; Al Bairuni, 1973; Chopra, 1956)

Arabic:	Unnab
Persian:	Sailana, Sinpo-i-Jilani
Urdu:	Unab, Jangali ber
Hindi:	Ber, Kandiari, Simli
English:	Common Jujube, Jujube, Chinese date
Punjabi:	Amlai, Amra, Barari, Ber, Beri
Sindhi:	Anab, Ber
Kashmiri:	Bary, Konkamber
Sanskrit:	Koli, Badari, Rajabadari
Bengali:	Kul
Assamese:	Bogori
Oriya:	Bodori
Gujrati:	Bordi
Marathi:	Bor
Malayalam:	Badaram
Kannada:	Bogari
Tamil:	Vadari

Botanical description

A spiny deciduous shrub or a small tree upto 10-12 m high; Leaves alternate, ovate to ovoid-lanceolate, 3-7 cm long by 2-3.5 cm wide; apex slightly obtuse; base oblique; margin closely serrulate, 3-veined; Inflorescence an axillary cyme; Flowers perfect, 7-8 flowers in each cluster, greenish-yellow; Fruits drupe, 1.5-5 cm long, ovate to oblong, dark reddish-brown when ripe, containing a single stone surrounded by fleshy pulp. (Prajapati, 2003)

Habitat and Distribution

Rangpur, Nepal, Jurjan, Khata, Baghdad, Punjab, Himalayas, Kashmir, Baluchistan, dry hot regions of Western India chiefly Rajasthan, Bengal, commonly cultivated in India, Japan, China, Africa, Malaysia, Afghanistan and Australia. It is believed that this species is a native of North China, from where it was introduced in to West Asia 2,500 – 3,000 year ago. (Chopra, 1956; Agarwal, 1990; Basu, 1987; Prajapati, 2003)

Cultivation

It requires hot summers and sufficient water for acceptable fruiting. It tolerates fairly cold winters, surviving temperatures down to about -15 °C, grows in the mountain desert habitats, provided there is access to underground water through the summer. (Kassem *et. al*, 2011)

Modern description**a) Macroscopic**

Pulp pieces irregular in shape, shrunk, with external surface smooth and glossy, 2 mm in thickness, brittle; colour, orange red; odour, not distinct; taste, sour (Anonymous, 2001).

b) Microscopic

Fruit pulp shows single layered epicarp consisting of thin walled, parenchymatous cells, covered with thin layer of cuticle; mesocarp differentiated into two zones, outer zone consisting of 5-10 layers of rectangular, thin-walled, parenchymatous cells, inner mesocarp consisting of oval to polygonal, thin-walled, crushed parenchymatous cells, most of the mesocarp cells filled with reddish-brown substance, which is tannin when tested; a few fibrovascular bundles found scattered in this region. (Anonymous, 2001)

Unani description

According to *Najmul Ghani*, Unnab is the fruit of a tree resembling Ber. It is red colored and sweet to taste (Ghani, YNM). *Ibn Baitar* says that Unnab is the fruit of a tree, which possesses nutritional and medicinal values (Kabeeruddin, YNM; Baghdadi, 2005). According to Hakim Mohd Azam Khan, Unnab are the fruit of a tree resembles Zaitoon and Ber tree in height. Leaves are slightly thick and longer than Ber. The lower side of leaves is hairy. Jurjani, Khatai and Nepali Unnab are better which are red in color and sweet to taste. Unnab of Baghdad area is big and fine, which is known as Waquqi. A kind of Unnab is slightly long like dates and its

seeds are thin and longer. These types of Unnab are imported from Hill area of Nepal and Rangpur. They are more sweet to taste and slightly astringent. (Khan, 2014)

Mizaj (Temperament)

Motadil (Antaki, 1317 AH; Takmili, 1987),

Motadil between dry and wet (Majusi, 2010; Jurjani, 1903)

Hot 2° Dry 1° (Kabeeruddin, YNM)

Parts used Medicinally

Fruits (Nabi, 2007; Anonymous, YNM)

Leaves (Ibn Baitar, 1999; Basu, 1987)

Seeds (Ibn Baitar, 1999)

Bark (Khan, 2014)

Root (Anonymous, 1992)

Gum (Nadkarni, YNM)

Pharmacological actions (Ghani, YNM, Khan, 2014; Al Masihi, 2014; Halim, 2009; Anonymous, 2001; Agarwal, 1990, Hussain, 1990)

- Musakkin-e-hiddat-e-khoon wa safra (Blood and bile refrigerant)
- Musaffi-e-khoon (blood purifier)
- Munzij-e-akhlat-e-ghalizah (Concoctive of viscous humour)
- Mulayyin-e- sadr (Emollient of chest)
- Munaffis balgham (Expectorant)
- Dafe sual wa rabu (Antitussive)
- Dafe khashunat-e-halaq wa sadar
- Mulayyin (laxative)
- Muza'if-e-bah (Anaphrodisiac)
- Muqallil-e-mani (Reducer of semen)
- Mundamil-e-quruh (cicatrizant)
- Musakkin e Alam (Analgesic)
- Nafe sozish-e-baul
- Mukhaddir (Anaesthetic)
- Musaffi -e-saut
- Musakkin-e-atah (Thirst Quencher)
- Mushil-e-akhlat-e-raqiqa
- Dafe hikka (anti pruritus)
- Habisuddam (Haemostatic)
- Muqawwi-e-meda (stomachic)

Therapeutic uses (Kabeeruddin, YNM; Ghani, YNM; Anonymous, 1976; Basu, 1987; Ibn Baitar, 1999; Nabi, 2007; Khan, 2014; Aggarwal, 1990; Chopra, 1956; Al Bairuni, 1973).

- Constipation
- Surfa yabis (Dry cough)
- Khashunat-e-Halaq (Sore Throat)
- Busoor (skin eruptions)
- Mashara (Urticaria)
- Amraz-e-sadr (Thoracic diseases)
- Amraz-e-Riatain (Lungs diseases)
- Surfa (Cough)
- Laza-e-Meda (Stomach irritation)
- Nazf ud Dam (Hemorrhage)
- Hiddat-e-Khoon

- Judri (Chechak, Small pox)
- Hasba (Measles)
- Sozish-e-baul (burning micturition)
- Diq al Nafs (Asthma)
- Baht tu Saut (Hoarseness of voice)
- Hiddat-e-khoon wa safra
- Wajaul kuliya (Renal colic)
- Hikka (Pruritus)
- Kasrat-e-mani (excess of semen)
- Kasrat-e shahwat (Excess of sexual desire)
- Qolanj (Colitis)
- Warm e Shoiab (Bronchitis)

Adverse Effects:

- It is not easily digested (Baghdadi, 2005; Khan, 2014; Ghani, YNM, Basu, 1987; Halim, 2009).
- It leads to flatulence (Khan, 2014).
- Dry Unnab causes Zof-e- baah (anaphrodisiac action) (Razi, 2007; Hakim, YNM).

Correctives:

For indigestion and flatulence khaand, maveez (*Vitis vinifera*) and gulab (*Rosa damascena*)

For zof-e-baah honey (Ghani, YNM).

Substitutes

Sapistan (*Cordia latifolia*) (Ghani, YNM; Kabeeruddin, YNM, Nabi, 2007)

Unani Compound Formulations (Murakkabaat):

Sharbat-e-Unnab, Sharbat-e-Ejaz, Laoq Sapistan, Laoq Sapistan Khyar Shambari (Kabeeruddin, YNM; Anonymous, 2006).

Phytochemical constituents:

Alkaloids e.g. Cyclic peptide alkaloids, Cyclopeptide alkaloids, Antibacterial peptide alkaloid; Glycosides, Acylated flavone-C glycosides; Saponins; Terpenoids, Triterpene esters; Phenolic Compounds; Flavonoid compounds are some phytochemical constituents found in Unnab. (Lee *et. al.* 2004; Matsuda *et. al.*; 1999; Mahajan *et. al.*, 2009)

Pharmacological Studies

Antioxidant activity

The antioxidant components and antioxidant activity of the raw and cooked peel of *Ziziphus Jujuba* Mill were compared. The peel was analyzed for polyphenols, glutathione and tannin contents. In addition methanol and aqueous extracts were analyzed for flavonoid, saponin contents and antioxidant activity. The antioxidant activity of extracts was determined by DPPH and reducing power assay. It was found that antioxidant activities of all the extracts increased with increasing concentration except in hydro alcoholic (HA) extract of raw peel. In the raw peel, *methanolic extract* with highest antioxidant capacity revealed the same antioxidant activity as compared to standard of butylated hydroxytoluene (BHT). HA extract was the most potent antioxidant in the raw and cooked extracts. Data confirmed the raw and cooked peel of *Ziziphus jujuba* Mill. both have a great potential for utilization as a source of natural antioxidant. (Esteki & Urooj, 2012).

Anti-cancerous activity

In a study Cytotoxicities of the triterpenoic acids (extracted from *Z. jujuba*) was tested against tumour cell lines . The lupane-type triterpenes showed high cytotoxic activities. The cytotoxic activities of 3-O-pcoumaroylaliphatic acids were found to be better than those of non-coumaroic triterpenoids. The results indicated that the coumaroyl moiety at the C-3 position of the lupane-type triterpene may play an important role in enhancing cytotoxic activity. (Lee *et. al.*, 2003)

Anti-anxiety activity

The extract from seeds of *Ziziphus jujuba* showed the significant anti anxiety effects. It depressed the activity of the central nervous system which ultimately reduced anxiety and induced sleep. It was found that it produced sleep, without producing anticonvulsant or muscle relaxant like activities. (Peng *et. al.*, 2000).

Immuno-stimulant activity

The *hydroalcoholic extract* of leaves of Unnab stimulated cell-mediated immune system by increasing neutrophil phagocytic function. The extract was found to stimulate chemo tactic, phagocytic and intracellular killing potency of human neutrophils. (Ganachari *et. al*, 2004)

Anti-inflammatory activity

The leaf extract of *Ziziphus jujuba* possesses significant anti-inflammatory effect against carrageenan-induced rat paw edema. The percentage of inhibition of paw edema at 3 h after carrageenan administration produced by *Ziziphus jujuba* leaves extract was found significant when compared to control. (Kumar *et. al*, 2004)

Antipyretic effect

Methanolic extract of *Ziziphus jujuba* leaves was tested for its antipyretic activity. The leaf extract cause a highly significant reduction in temperature. The antipyretic effect was comparable with that of a standard paracetamol. (Balakrishnan *et. al*, 2012)

Antiallergic activity

The antiallergic effect of the aqueous extract of leaves of *Z. jujuba* was evaluates by measuring inhibitory action on hyaluronidase (bovine testes) activation in vitro. *Z. jujuba* was found to have strong anti-allergic activity. (Su *et. al*, 2002)

Antiulcer and gastro-protective activity

The anti-ulcer activity of Jujube leaves extract was evaluated by employing pylorus ligation, ethanol and aspirin induced gastric ulcers in rats. The study demonstrated that Jujube leaves extract has gastroprotective activity against experimentally induced ulcers in rats. The mechanism of gastroprotective action can be attributed to its antisecretory and cytoprotective property. (Ganachari *et. al*, 2004)

Anti-obesity activity

The *hydroalcoholic extract* of *Z. jujuba* leaves showed anti-obese property by causing reduction in body weight, food intake, serum glucose and lipid levels, and fat pad weights in dietary obese rats. The results suggested that the extract possesses significant weight reducing, hypophagic and hypolipidemic properties in sucrose induced obese rats. (Ganachari *et. al*, 2004)

Wound healing activity

The wound healing activity of topically applied *methanolic extract* of jujuba bark was evaluated by excision wound model. The extract showed effective wound healing effect. While comparing the jujuba bark extract 5% w/w, the 10% w/w showed significant result. (Kumar *et. al*, 2012)

The wound healing activity of the root of *Z. jujuba* in experimental animal, rat model, was confirmed through topical application of an ointment, made with jujuba root, at a dose 0.5% and 1%. (Chopra *et. al*, 2014)

CONCLUSION

Unnab is highly nutritional with promising properties of anti-oxidant, anti-inflammatory, anti-bacterial agent as well as cough is an important indigenous shrub used in Unani system of medicine since time immemorial. Along with its therapeutic potential, it also possesses nutritional value as well. The utmost concern in the medicinal utilization of *Unnab* especially in modern medicine is variation in its composition and lack of clinical trials. Through this review, it is suggested that *Unnab* and its parts are yet to be explored for its rich nutraceuticals as well as therapeutic values for the betterment of humanity.

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CREDIT DEFAULT SWAPS FUNCTIONING, VALUATION AND ANALYSIS OF FIVE YEAR CDS OF INDIA, BRAZIL AND EGYPT

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Abstract:

Credit default swaps (CDS) were initially offered for the banks to transfer their credit risk. In recent years CDS has grown into an attractive tool for portfolio management. In this paper the researcher has studied the working of a CDS, the method of valuation of a non-standard CDS, discusses the concept of market spread and contractual spread. This paper concludes with an analysis of 5 year CDS value on India, Brazil and Egypt. The analysis compares the CDS value with the yield from bonds of the respective countries to identify the relationship between the yield and CDS value and highlight the same.

Keywords: Credit Default Swaps, Valuation of CDS, Contractual spread, Market spread and Bond yield

Introduction:

Credit Default Swaps (CDS) is a form of credit derivative that allows the buyer to hedge the credit risk in the investment by paying a fee to the CDS seller. The credit events covered under a CDS include but not limited to non-payment of coupon or principal of the under laying security, degradation in the ratings of the under laying security, Debit restructuring and others. CDS have become a very popular tool to manage credit risk among companies which are exposed to a lot of credit risk namely banks and the major sellers of CDS are insurance companies. According to the U.S Comptroller of currency's quarterly report on credit derivatives, in June 2018, the size of the entire credit derivatives market was valued at \$4.2 trillion, of which \$3.68 trillion were CDS.¹ CDS came into existence in 1994, they were invented by Blythe Masters from JP Morgan² they became popular by the early 2000s and were at their peak before the Global financial meltdown of 2008. Before the financial crisis struck, statistics show that more money was invested in Credit derivatives then in any other form of investments. The greatest casualty during the financial crisis 2008 was the one of the largest investment bank Lehman brothers. The bank owed \$600 billion of which \$400 billion was covered by CDS and American Insurance Group (AIG) who was the major seller of these CDS ran out of funds to pay these debits when the credit event occurred lead to the Federal Reserve to step in a make a mass bail out. This event is said to be the biggest bankruptcy in American history. Credit default swaps are usually traded over the counter (OTC) and are tailor made contracts. They were not regulated by law and the seller of the CDS was not required to allocate any resources to back up if there was any claim in case of credit event. Apart from this, during the early 2000s speculators grew in huge numbers on CDS as CDS can be sold to other interested parties unlike an insurance contract. CDS were also used to measure the credit worthiness of an entity based on the CDS value. To provide guidelines to the derivatives market International Swaps and Derivatives Association was formed ISDA master agreement was first published in 1992 and the second edition was published in 2002. The reserve Bank of India (RBI) in 2011 permitted the CDS contracts in the Indian financial markets with strict guidelines which seem to restrict he usefulness and scope of the contract.

Review of related literature:

Longstaff et al (2011)³ separate the sovereign CDS spreads as risk premium and default risk components. Risk premium is considered as the compensation to the unpredictable changes in default arrival rate i.e. "distress" risk. The risk premium is quantified as the difference between the CDS theoretical values under the risk neutral and physical measures and it was identified that on average a third of the sovereign CDS spreads represents distress risk.

¹ Quarterly Report on Bank Trading and Derivatives Activities- Second Quarter 2018

Office of the Comptroller of the Currency ,Washington, D.C. September 2018

² *Credit Default Swaps* - <https://corporatefinanceinstitute.com/resources/knowledge/finance/credit-default-swap-cds/>

³ Longstaff, F. A. (2011, April). *How sovrein is sovrein credit risk* Retrived from <http://www.aeaweb.org/articles.php?doi=10.1257/mac.3.2.75>

Calice, Vhen and Williams (2011)¹ analyze the potential liquidity effect between CDS markets and sovereign bond during the European crisis in 2010. There were three important findings from this study. First, as the effect of lack of liquidity in sovereign bonds, liquidity of CDS increases significantly to an extent that bids and spreads closing on one-to-one ratio. Secondly, the study shows evidence of a strong effect of liquidity from the CDS to the bond spreads. Thirdly, they show that, prior to the crisis, CDS spreads were determined based on bond yield, and however during the crisis it was observed that there was a shift in this relationship as it was identified that CDS spreads took lead over bond yields.

Amadei et al (2011)² study the issues with respect to European sovereign CDS market and its relation with bond market. It was concluded that, during the recent crisis, there was less to no scope for bond-CDS arbitrage. However as the sovereign bond market turned less liquid, CDSs become a key factor in terms of price discovery. Furthermore, no clear evidence to conclude that sovereign bond prices were directly influenced as a result of speculation, thus caution must be observed while assessing any regulatory measure taken against speculation as these measures can hamper smooth functioning of sovereign bond market.

Ismailescu and Philips (2011)³ studied the impact of CDS trading on sovereign bonds from the perspective of price discovery, market completeness and borrowing costs. It was reported that CDSs contribute to 67% in incremental increase of pricing information and cannot be considered as redundant assets. However, the authors also point out that this result is not applicable across all cross sectional level. Countries with less restriction do not benefit greatly from price informativeness gains. The paper concluded with a note that introduction of CDS has increased liquidity of investment grade sovereigns as a result there is a fall in borrowing costs.

Schmaltz & Thivaos (2014)⁴ from a regulatory perspective it was argued that CDS cannot be considered equivalent to an insurance contract. The CDS buyer is in a position to gain compensation even without suffering a loss (potential gain realized), but insurance policies compensate only in the event of a loss (no potential gain realized). Therefore it was concluded that CDSs are not insurance because CDSs do not deal with insurable interest and indemnity.

Research gap - Statement of the problem:

The literature examined as a part of the study emphasis on the study on CDS during the times of financial crisis. The literature review also gives us picture on the premium charged for the CDS and the reason due to which CDS cannot be considered as insurance contracts. There have also been studies carried out to find the relationship between CDS value and bond pricing. This study aims to add to the literature through the study of the relationship between CDS value and bond yields based on sovereign bonds of three countries and throws light on the valuation of CDS.

Objectives of the study:

- To understand the mechanism of a basic credit default swap
- To understand valuation of a credit default swap
- To analyze the CDS value of sovereign bonds and its relationship with respect to bond yield

Research Methodology:

This study was conducted entirely based on secondary data. Secondary data was studied with respect to the working of a basic credit default swap and the valuation of credit default swap. Data for the analysis on CDS value of sovereign bonds and bond yield were gathered from www.worldgovernmentbonds.com statistical tool

¹ Calice, G. Chen, J. Williams, J.M. (2011, December 5) *Liquidity Spillovers in Sovereign Bond and CDS Markets* Retrived from <http://dx.doi.org/10.2139/ssrn.1968499>

² Amadei, I. Di Rocco, S. Gentile, M. Grasso, R. Siciliano G. (2011, February 1) *Credit default swaps Contract characteristics and interrelations with the bond market* Retrived from <http://www.consob.it/documents/46180/46181/dp1en.pdf/1675e1d6-c0f6-4a74-82cc-90c2c2b9cc3f>

³ Ismailescu, I. and Phillips, B. (2011, August 4) *Credit Default Swaps and the Market for Sovereign Debt* Retrived from webpage.pace.edu/iismailescu/Papers/saviorsinner.pdf

⁴ Schmaltz, C. Thivaos, P. (2014, November/December) *Are Credit Default Swaps Credit Default Insurances?* Retrived from <https://clutejournals.com/index.php/JABR/article/download/8900/8921>

used for analysis was correlation. MS Excel platform was used for calculation of correlation. Data with respect to credit rating and the probability of default was obtained from “The Wire” and details of the recovery rate of the sovereign bonds were obtained from www.worldsovereignbonds.com

Chapter 1: Mechanism of a basic credit default swap:

In simple terms CDS is analogous to an insurance contract but with two important criteria's that differentiates it from an insurance contract. In a CDS contract the buyer of the CDS contractor pays a premium to the CDS writer (seller) to hedge the credit risk associated with the underlying asset. For instance by holding an insurance contract the homeowner can insure the risk of the damage caused due to a fire accident i.e the insurance seller will compensate the insurance holder by settlement of claim launched on the account of the fire accident. However, in order to claim this coverage the insurance holder must pay the insurance seller a premium on a regular basis till the claim event occurs or till the term of the contract. Similarly, a CDS buyer will have to pay a premium to the CDS writer till a credit event occurs or till the term of the contract and in return the CDS writer agrees to protect the CDS holder in the occurrence of a credit event. Credit events are generally referred to the default in payment of interest or coupons on bonds or the under laying security by the issuer of the security and fall in credit rating of the security.

CDS are different from an insurance contract in three important aspects:

Possession of the under laying asset: Insurance contracts can be purchased only by the person who is in possession of the underlying asset. E.g. In order to purchase a motor insurance it is necessary to own a motor vehicle similarly to buy a house insurance it is necessary to own the house but in case of CDS contract it is not necessary for the CDS buyer to be in possession of the under laying asset to hedge the buyer from a credit event related to that specific asset.

Technicality: In case of an insurance contract the claim is settled to the extent of the damage caused due the accident against which the insurance was purchased. In other words the underlying asset is not taken over by the insurance provider in return for the face value of the asset rather the claim is settled only to the extent of damage sustained. In case of CDS, the CDS seller covers the “damage” caused by the default up to the principal of the under lying security. This can be executed in one of the two ways. Firstly, the CDS seller can buy the underlying security for the face value of the asset in case of a default or the seller can compensate the buyer of the CDS to the extent of fall in the value of the asset due to the default. For example, if the value of the bond has fallen by 40% due to a credit event and is now trading in the market at 60% of its face value the CDS seller can compensate the buyer for the amount equivalent to 40% of the face value (fall in value) of the bond.

Novality: In case of a CDS contract if the buyer feels that the credit worthiness of the underlying asset has increased and no longer feels the need to a credit protection the CDS buyer can sell a CDS to another counterparty looking forward to insure their credit risk on the same underlying asset as a result of which the trades cancel out each other. This form of novality is not generally practiced in an insurance contract.

Cash flows in a CDS contract:

In the books of the CDS buyer there will be regular payment paid to the CDS seller for the protection offered against the credit risk. These payments are quoted as basis points (bps) (1 bps = 0.01%) on the face value of the underlying asset. Eg if the buyer is required to pay 20 bps for the protection against credit risk of a bond with face value of \$100,000,000 the regular payment to be paid will be \$200,000 till the end of the contract or till the credit event occurs. If the credit event occurs between two payment periods the buyer has to pay the premium proportionate to the dates from the last premium paid and the occurrence of credit event.

Settlement in case of credit event:

a. **Physical settlement:** In this mode of the settlement the CDS seller takes physical position of the underlying asset and in return settles the principal value to the CDS holder.

b. **Cash settlement:** In case of cash settlement the realizable value of the underlying asset in the market is calculated the difference between the principal of the asset and the realizable market value is paid to the CDS holder. Cash out flows in the books of the buyer appears as inflows in the books of the receiver and vice versa.

Upfront payment or CDS spread:

Apart from the regular payment and the settlement there is another transaction involved in a CDS contract. This concept is discussed in the following chapter.

Chapter 2: Valuation and pricing of a Credit Default Swap:

The value of a CDS is calculated on the basis of the following factors:

Risk free rate: Theoretically risk free return can be defined as the return investors earn with zero risk. But practically in the globalized world of today no investment can be classified as risk free investment as even the safest of investment carry a small amount of risk and the return on these safest investments are also significantly low. Generally the securities backed by the Government are classified as risk free security and the return fixed on these securities are considered risk free rate of return.

Probability of Default (PD): It is the possibility of default within a specific time frame, usually one year that a borrower will not be able to make the payments as specified. PD is not only dependent on the ability of the borrower to make the payment but also on the economic environment. Probabilities of default on sovereign bonds analyzed in this study were determined based on their credit ratings.

Recovery rate: The maximum limit to which the outstanding principal and the accrued interest on an underlying security can be recovered is the recovery rate of the underlying security. It can also be referred as the value the underlying asset will carry after an occurrence of a credit event with respect to the security. For instance if a security is said to have recovery rate of 40% it indicated that after a credit event the security will be valued at 40% of its face value and the loss given default (LGD) is 60% (1-recovery rate). Recovery rate for the securities in this analysis was collected from www.worldgovernmentbonds.com

Calculation of a CDS spread on sovereign bond:

India: S&P has rated India as BBB- with respect to its credit rating¹ which can be roughly translated that India carries as 3.44% cumulative probability default.² The recovery rates of Indian bonds are assumed to be at 40% for this study.³ The risk free rate in India 7% (rounded to the nearest whole number) (SBI FD rate 1 year)⁴ was considered as the discount rate for the purpose of valuation. The valuation of a CDS is based on the underlying assumption that the buyer and seller of the swap will agree on the deal only if the probability of present value of future cash inflow is equal to the probability of present value of future cash out flows.

Table 1: Valuation of a Non-standard CDS:

	Prob. of Default:	3.44%							
	Recovery rate	40.00%							
Time	Dis Factor @7%	Payment by CDS buyer				Pay off by CDS seller			
		Exp. Payment		Exp accrual		Exp payoff			
		Probability of survival	PV of Expected payment	Expected accrual	PV of expected accrual	Default probability	Dis factor	% of notional	PV
0.5				1.72%	0.017	3.44%	0.967	2.06%	0.020
1	0.935	96.6%	0.902						
1.5				1.66%	0.015	3.32%	0.903	1.99%	0.018
2	0.873	93.2%	0.814						
2.5				1.60%	0.014	3.21%	0.844	1.92%	0.016
3	0.816	90.0%	0.735						
3.5				1.55%	0.012	3.10%	0.789	1.86%	0.015
4	0.763	86.9%	0.663						
4.5				1.50%	0.011	2.99%	0.738	1.79%	0.013
5	0.713	83.9%	0.599						
Total			3.713		0.0684		Total		0.082

**Calculation based on John Hull, Chapter 21, section 21-23- Valuation of CDS*

1 S&P affirms India's rating at 'BBB-minus' with 'stable' outlook - Asia Nov 25, 2017/ 4:02 AM

<https://www.reuters.com/article/us-india-ratings-s-p/sp-affirms-indias-rating-at-bbb-minus-with-stable-outlook-idUSKBN1DO1DE>

2 Quantifying the risk of bonds with S&P credit ratings - Tuesday 28 February 2017 by FIIG Research

<http://thewire.fiig.com.au/article/2017/02/28/quantifying-the-risk-of-bonds-with-sp-credit-ratings>

3 India 5 Years CDS - Historical Data - World government bonds

<http://www.worldgovernmentbonds.com/cds-historical-data/india/5-years/>

4 SBI FD Interest rates, Feb 2019

<https://www.myloancare.in/fixed-deposit/fd-interest-rates/sbi>

Table 2: Valuation of a Non-standard CDS:

Expected payment by buyer	3.782
Expected payoff	0.082
Solve spread (s)	$3.782s=0.082$
spread (s)	0.0217
spread (s)	217 basis points

**Calculation based on John Hull, Chapter 21, section 21-23- Valuation of CDS*

Table 1 shows the valuation of 5 year CDS on Indian sovereign bonds. The calculation involves calculating the present value of the probability of survival of underlying security based on the probability of survival at various time stamps and is added to the present value of probability of expected accrual based on the possibility of default. This sum shows the total present value of expected payment by the buyer to the seller (**3.782**). The second part of the calculation involves calculating the Present value of expected pay off from the CDS seller. It is calculated on the cumulated probability of default and the percentage of the notional that has to be paid after adjusting the recovery rate and multiplied with the discount factor to arrive at the present value of expected future cash pay off from the seller.

Once the above figures are calculated they are plugged into the simple equation which depicts that the PV of payment = PV of Payoff. **Table 2** shows the equation and the calculation of the spread in terms of Basis points (**217 bps**) to a Rupee.

This basis is then multiplied with the principal of the underlying asset to determine the premium that has to be paid by the CDS buyer in order to enjoy the protection offered by the seller.

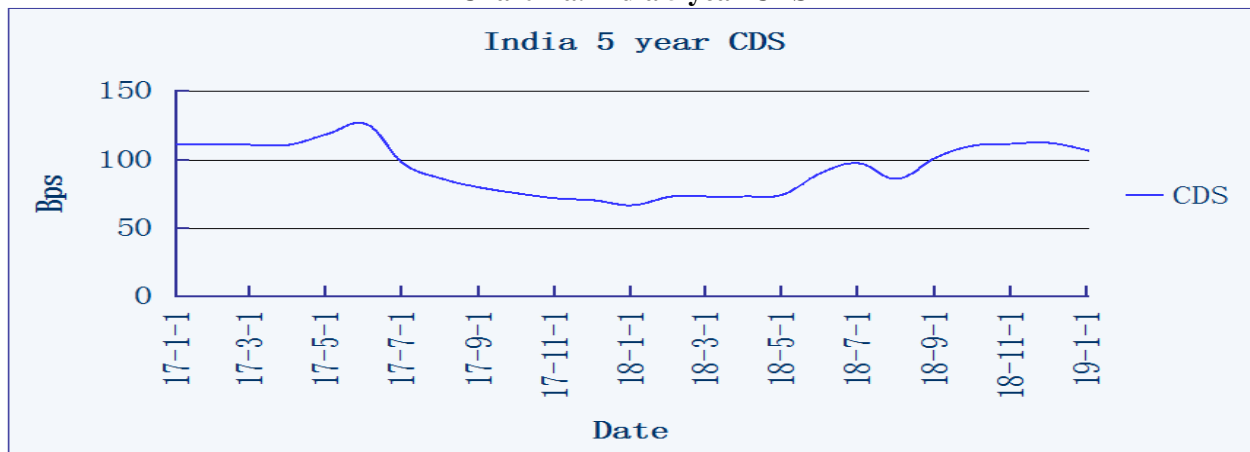
Upfront payment or CDS spread:

Post the standardization of CDS contracts with standard premium i.e. 100 bps or 500bps in North America quoting a CDS contract adds little meaning. Therefore, for example the CDS dealer quotes a CDS as 5 points up front. This means apart from the standardized premium the protection buyer has to pay 5% of the notional to the seller to buy the protection. This is demanded due to the fact that there will be a difference between the notional premiums which would have been paid under non-standardized contract and the premium paid on a standardized contract. The value of a non-standardized contract and a standardized contract can be calculated from the ISDA model. The points upfront or upfront fee will carry a sign, if it is quoted as a negative figure, the buyer received the fee and vice versa.

The maturity of the contract depends on the probability of the credit event. Therefore, higher possibility of occurrence of a credit event leads to lesser number of premium payments leading to lesser upfront fee and vice versa. Upfront fee is also determined by the rate of recovery of the underlying security. If the debit instrument has a higher recovery rate the upfront fee required to be paid will be low and vice versa. The calculation of the upfront fee in the current time is standardized by the International Swaps and Derivatives Association (ISDA). The CDS model followed by ISDA can be found in the <http://www.cdsmodel.com/cdsmodel/>

Chapter 3: Analysis the CDS value of sovereign bonds and its relationship with respect to bond yield

India:

Chart 1 a. India 5 year CDS

(Source in annexure)

Chart 1 b: India 5 year bond yield



(Source in annexure)

Correlation-coefficient of 5 year CDS and 5 year bond yield = **-0.0422**

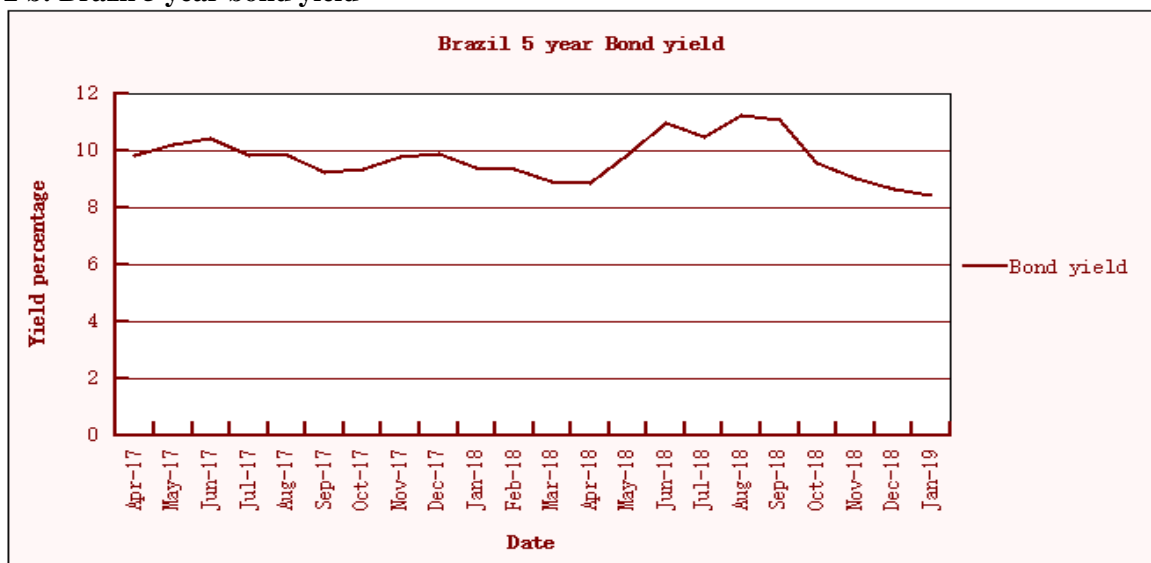
Brazil:

Chart 2 a. Brazil 5 year CDS



(Source in annexure)

Chart 2 b: Brazil 5 year bond yield

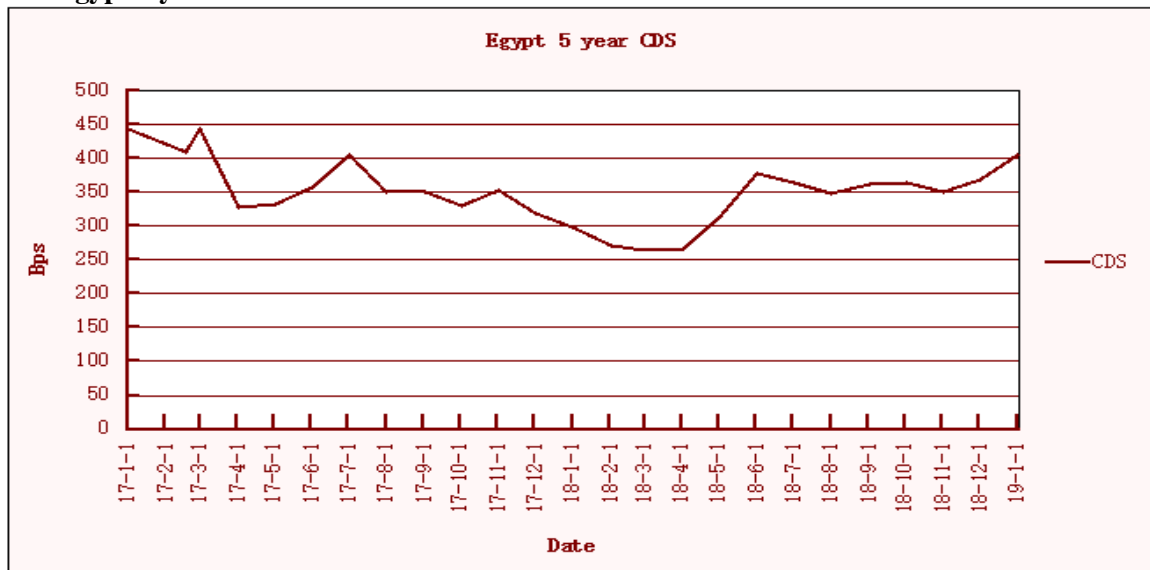


(Source in annexure)

Correlation-coefficient of 5 year CDS and 5 year bond yield = **0.7783**

Egypt:

Chart 3 a. Egypt 5 year CDS



(Source in annexure)

Chart 3 b: Egypt 5 year bond yield



(Source in annexure)

Correlation-coefficient of 5 year CDS and 5 year bond yield = **0.6602**

Interpretation:

1. From the analysis on the bond yield and the CDS value in the three countries. The CDS value is highly positively correlated with the bond yield for Brazil and Egypt at 0.7783 and 0.6602 respectively representing a direct relationship between the two. It is also important to note that the bond yield and bond prices move in opposite direction. Therefore, on reading both the statements together it can be interpreted that CDS value and Bond prices are inversely related
2. On close examination of the charts it can be interpreted that the bond yield follows the CDS value. Thus, it can be interpreted that CDS value takes leads over the bond price which leads to changes in bond yield
3. From Chart 1 a and 1 b it can be noted that the value of CDS and bond yield are negatively correlated at -0.0422. This indicates that the relationship identified between the CDS value and Bond prices in other two countries do not apply to India.
4. The causes for 3rd interpretation could be due to the deteriorating macro economic situation. With the oil prices constantly on the raise and 70% of the nation's import consist of oil could lead to a deficit in the balance of payment leading to borrowing of funds and further widening the national debit. This aspect of the economics about the country keeps the bond prices low leading to higher yield on the bonds.
5. Apart from the economic situation, the debit and the CDS market in India are still in developing stage.

Therefore, analyzing the CDS value to predict the Bond yield will not hold good till the CDS market matures which is dependent on the underlying asset, the debit instrument itself.

Findings of the study:

- From the study it can be narrated that CDS are basically similar to insurance contracts. While CDS insures the risk of probability of default by the issuer of the underlying security
- The CDS contract unlike insurance contract does not mandate the possession of ownership of the underlying asset
- CDS does not compensate the buyer to the extent of damage caused due to a credit event but compensates buyer up to the principal of the underlying asset
- CDS can be settled with through cash or physical exchange of the underlying asset
- In a Non-standardized valuation of CDS the premium is calculated by equating the PV of expected payment by the buyer to the seller (Expected premium payment) and the PV of expected pay off (Compensation) by the seller in case of a credit event
- ISDA had standardized the CDS contract by fixing on the CDS premium to be fixed i.e. 100 bps or 500 bps in North America
- Standardization has led to the concept of Upfront fee to compensate the buyer or the seller due to the discrepancy arising between standardized and Non-standardized premium
- In general terms, bond yield share an inverse relationship with the bond prices and a direct relationship with the CDS value. This can be written as CDS and bond prices are inversely related
- CDS leads the bond prices in a matured market of bonds and CDS
- Bond market and CDS market in India are still in developing stage
- Macro Economic constraints leads to raise in yield of bond prices in India

Suggestion and conclusion:

CDS markets have been criticized for the global economic meltdown in 2008 and various other financial crisis across the globe. But the market for the CDS is continuing to boom in different parts of the world. The prominent reason for this could be the fact the CDS offer a tailored made contract to hedge the specific risk associated with an underlying laying security which cannot be avoided using diversification. The standardization of CDS has lead to more control for the monitoring bodies of the CDS markets. The standardization of the CDS markets should be brought out in such a manner as to not to hinder the basic purpose of the CDS in the market. Through establishment of a central clearing house for the CDS market will provide more transparency over the valuation of CDS and the data collected through the Central clearing house could be very useful for market analysis as it can be observed from the study on how the value of CDS shapes the bond prices in a country and the bond prices in the county is one of the leading macro economic indicator of the economy of a country.

Scope for further research:

- This study was limited to the valuation of CDS as per non-standardized model. Further study can be carried on the standards valuation of CDS as per ISDA
- Further study can be carried out to identify the relationship between CDS and other major macro economic variables
- Future studies can be carried out to find the criteria for valuation of a debit instrument by credit rating agencies and quantify the probability of default based on the credit ratings

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Annexure: Data for Chart 1a, 1b, 2a, 2b, 3a, 3b

Date	India		Brazil		Egypt	
	CDS (bps)	Bond yield (%)	CDS (bps)	Bond yield (%)	CDS (bps)	Bond yield (%)
Jan-17	110.892	6.573	-	-	442.586	17.54
Feb-17	110.892	6.916	-	-	408.874	16.7
Mar-17	110.892	7.076	-	-	443.341	17.16
Apr-17	110.892	7.03	222.514	9.856	328.557	17.23
May-17	119.202	7.003	237.471	10.202	332.785	17.36
Jun-17	126.281	6.683	236.943	10.442	356.377	18.34
Jul-17	97.886	6.53	213.314	9.821	405.058	18.98
Aug-17	86.392	6.498	201	9.809	351.506	17
Sep-17	80.024	6.61	197.943	9.231	349.388	15.55
Oct-17	75.302	6.661	173.457	9.336	331.182	15.45
Nov-17	72.184	6.855	177.45	9.762	353.16	15.92
Dec-17	70.726	7.049	163.186	9.907	318.614	16.1
Jan-18	67.216	7.232	146.143	9.399	299.478	15.45
Feb-18	73.294	7.357	153.9	9.36	272.038	14.434
Mar-18	73.158	7.38	149.1	8.919	263.488	14.897
Apr-18	73.252	7.527	165.725	8.881	266.7	15.085
May-18	74.964	7.83	215.214	9.869	313.448	15.225
Jun-18	90.594	7.864	265.5	10.99	378.5	16.891
Jul-18	97.676	7.932	211.886	10.474	363.9	17.768
Aug-18	86.264	7.896	291.586	11.249	348.01	17.983
Sep-18	101.92	8.2	260.214	11.089	362.251	18.705
Oct-18	110.362	7.896	215.286	9.573	364.16	18.564
Nov-18	112.13	7.601	203.214	9.036	350.93	18.441
Dec-18	112.288	7.406	202.271	8.646	367.572	18.393
Jan-19	106.837	7.335	178.7	8.418	405.676	18.478

* Source - www.worldgovernmentbonds.com

A STUDY OF CONSUMER PERCEPTION OF AYURVEDA PRODUCTS IN HARYANA

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ABSTRACT

The Ayurveda product market is flooded with numerous well –known and identified herbal brands. The study is to examine existing states of Haryana in Bhiwani. This study talks about other parameters like merits/demerits benefits/ attributes consumer acquaintances with ayurveda products, awareness, preferential, source of knowledge, usage and attitude related to ayurveda products. The research design consisted of an exploratory phase followed by a descriptive cross-sectional, close ended questionnaire-based survey in Bhiwani. As the study has been conducted in a Hindi belt, the questionnaire was kept bilingual; Hindi and English. Sampling was done on the basis of two criteria; 1) such regions were selected where almost major Ayurveda brands are available and 2) Respondents have used at-least one of the herbal brands. Most of the respondent mentioned that ayurveda products are prepared from the natural ingredient, as a result faced no side effect. Purchase of ayurveda products primarily takes place on a monthly basis and use on a daily basis. Doctors, family members and mass media were reliable sources and the respondents trust on their recommendations for buying fresh herbal products.

Keywords: Ayurveda, Products, Consumer, Market

INTRODUCTION: AYURVEDA

Ayurveda is a system of medicine with historical roots in the Indian subcontinent. It is a holistic system of medical science and is the oldest healing science which is almost 5000 years old. Ayurveda contain two Sanskrit words Ayu—which means life or lifespan and Veda meaning knowledge (The science of Life). Ayurveda has gained recognition as an alternative system of medicine not only in developed, but also in the developing countries.

Ayurveda is predominant among India's traditional health systems. It runs parallel to the modern healthcare sector and has a seventy per cent share of the formal medicine market. Ayurveda manufacturing units can be broadly classified into the organized and the unorganized sectors. The organized sector consists of both large and small manufacturing units. The large manufacturing units comprise the well-established manufacturers who operate in both domestic and international markets.

The growing popularity of ayurveda around the globe created new challenges to the ayurvedic society as well as Business society.

The Size of global Ayurveda market amounted to US \$ 3.4 Billion in 2015 and is expected to reach US \$ 9.7 Billion by 2022 at a CAGR of 16.2 %. The current landscape of ayurvedic products and services in India may be classified into three primary categories. These are **Retail** products and Services for treatments, wellness and consumption largely for personal care. **Wellness** (it includes the application of ayurveda for beauty, fitness, nutrition and Rejuvenation., **Therapeutic** (Ayurveda as a form of medicine akin to allopathy and homeopathy)

Global Ayurveda Market Research Report and Forecast (2017 -2022)

Year	Results
2015	3.4
2016	4.0
2017	4.6
2018	5.3
2019	6.2
2020	7.2
2021	8.4
2022	9.7

The industry is anticipated to almost triple in size in the coming years with the market expected to reach US \$ 9.7 billion by the year 2022.

Ayurveda is becoming even bigger business in India. Ayurvedic products are increasing in popularity. A recent report unveiled at the global Ayurveda Summit in Kochi found that 77 percent of Indian households used them in 2017. This is up from 69 percent of households in 2015.

According to Union Minister of state for AYUSH , Shripad yesso Naik , the market size of ayurvedic products in India is forecast to rise three -fold from US\$ 2.5 billion in 2015 to US\$ 8.0 billion by 2022.The growing popularity of Ayurveda around the globe created new challenges to the ayurvedic society as well as Business society .

India with a population of more the 100 crores is potentially one of the largest consumer market in the world. With urbanization and development of economy, brand identity, Living style, suggestion and interests of the people changes according to the advance nation.

Marketing is about winning this new environment. It is about understanding what consumer's wants supplying it's more efficiently and more conveniently.

Different types of Ayurveda products are available in the market and more or less content of all products are same basically. The market of Ayurveda products is facing a cutthroat competition and many companies are floating in the market with their products with different brand names. In such kind of situation different factors which influence to the people choice for ayurvedic products are mainly doctor's prescription, availability an Ayurveda chemist shop, suggestion of chemist, efficiency, quality, images.

So, Marketing is both philosophy and technology. It is technology because it suggests ways and means for effective production and distribution of goods and services in the market to give maximum satisfaction to the consumer.

Ayurveda product are produced by several thousand companies in India. The key suppliers in Ayurveda are Dabur, Baidyanath, Zandhu, Patanjali (most famous and popular in all) Shree–Shree, Himalaya wellness, Vicco etc.

1. **Dabur India Limited** – Dabur is small herbal medicine company was founded by visionary Dr. SK Burman in Kolkata in 1884 . Since the last 123 years, Dabur has grown from strength to strength. Dabur is well known for its nutritional supplement 'Chayanprash'. Dabur is one of the best ayurvedic companies in India and is worth millions of dollars today and is acknowledge internationally.
2. **Baidyanath** – The company Shree Baidyanath Ayurveda Bhawan Ltd of kolkatta was founded in 1917. The company offers specialized preparations to treat various ailments as well as powders promotes healthy living with yoga and other ancient Indian Sciences.
3. **Himalaya wellness** – The company's website has an interesting legend about its inspection, Himalaya, s story began way back in 1930. Himalaya took Indian Ayurveda worldwide. Some 30 million units of Himalaya's products are consumed worldwide every year.
4. **Charak Pharma** -Founded in 1996, Charak pharma is the brainchild of brothers DN Shroff and Dr. SN Shroff. The company was launched with a vision to position Ayurveda based medicines and herbal products in Indian and Foreign markets. Charak has a wide range of proprietary medicines, beauty products and nutritional supplements.
5. **Zandu Ayurveda** – Zandu Balm is perhaps the most popular product of this company named after Zandu Bhatt, the personal physician of earthwhile ruler jamnager. Zandu Ayurveda is a multi-millions dollar Indian Company. Its product range from Ayurveda based medicines to cure complex ailments from poor memory to uterine cyst. The company's products have been endorsed by top Indian cine stars and cricket players.
6. **Himalaya** – The Himalaya drug company was established in 1934 in Bangalore. It has currently a business level about 500 million dollars and has a U.S distribution division.
7. **Patanjali** – Patanjali is an Indian consumer goods company. Manufacturing units and headquarters are located in the industrial area of Haridwar while the registered office is located at Delhi. Patanjali is the fastest growing FMCG company in India. It is valued at \$30 billion (US\$430 million). Patanjali declared its annual turnover of the year 2016-17 to be estimated TRs 10,216 crore (US\$ 1.5 billion). It was listed 13th in the list of India 's most trusted brands (The Brand Trust Report) as of 2018, and rank first in FMCG category.

HISTORY OF AYURVEDA

Around 1500 BC, the use of Ayurveda increased for treating various diseases and it was divided into eight specific branches of medicine. In addition of Atreya – the school of physicians and Dhanvantri – the school of

surgeons originated. The Chinese, Tibetans, Greeks, Romans, Egyptians, Afghanistanis and Persians came to India to learn ayurvedic Principles of Healing and treatment.

In the past few centuries Ayurveda went through a period of decline in India (specifically during the period of British rule. During this period, it became the second option for treatment used mostly by traditional spiritual practitioners and the poor. After Independence, Ayurveda started to gain importance again and several schools have been established since then. Ayurveda is based on the fundamental principles that to prevent and treat illness, maintaining a balance in the body, mind and consciousness through proper drinking, diet and lifestyle, as well as herbal remedies, is essential.

Since the mid 70's the popularity of Ayurveda has steadily increased in the developed nations.

A classic ayurvedic text, that parallels the time frame of the Atharvaveda, is the Charaka Samhita. Written in the Indus Valley area around 1000 B.C.E. (Before the Common Era) in Sanskrit, it is a treatise on general medicine. This strongly suggests the probability that Ayurveda, though of pan Indo-European origins earlier, had begun to evolve into a distinct Ayurveda means 'the science of life', and is a medical system practiced in India, Sri Lanka and Nepal. Four thousand years old references to the Nasatya are found in the now extinct, Hurrian and Hittite languages in Turkey, and in the Sanskrit language in India. Ayurveda is considered the upaveda or accessory Veda to the Atharva Veda. The four Vedas are world's oldest literary documents in an Indo European language, entity within the the subcontinent by the first millennium B.C.E.

Ayurveda 's lasting influence in the non Indo-European sphere began after the rise and spread of Buddhism in the 6th century B.C.E. .buddhist monks introduced Ayurveda to China, Tibet, Korea, Monolia and Sri Lanka , leaving a lasting legacy in their medical systems.

More recently, the German translation of an ayurvedic text that dates back to less than 1000 B.C.E, the Susruta-Samhita, contributed to modern medicine the discipline of plastic surgery. Susruta mentions eight branches in Ayurveda. – General medicine, Surgery, ENT and Eye diseases, Toxicology, Psychiatry, Pediatrics, Gynecology, Sexology and Virility.

Ayurveda in modern time -Our modern age proudly displays a lifestyle where work, communication, business and travel has been made extremely easy for man, with various gadgets and machines equipped with previously unheard -of electronic technology. Still in-spite of these comforts, life has become more complex and competitive. Man finds himself more under stress than ever before because with the modern technology and lifestyle, more is demanded of him. Families are breaking up because proper care and time for one another is becoming a rarity.

Several diseases have sprung up and are increasing due to the basic factor of stress and aggressiveness, and are now frequenting at an early age. In this rut of life, each one is left to cater to one's own needs causing a vicious cycle of stress and distress, threatening one's very existence.

The Ayurveda 'dincharya' or daily schedule helps to bring about peace and harmony in one's life. Ayurvedic daily life routines are meant to enhance the total healthy of man, both mental and physical. They are easy to follow and are not liable to cause trauma of any kind to the body or mind.

CONSUMER PERCEPTION

Consumer Perception is typically affected by advertising, reviews, public relations, social media, personal experiences and other channels. Consumer Perception theory is undertaken by companies prior to the launch of a specific product or brand.

Consumer Behavior is a process a consumer uses to make purchase decisions, as well as to use and dispose of purchased goods or services; also includes factors that influence purchase decisions and the product use.

TYPES OF BUYER

1. Individual buyer
2. Business buyer

Consumer behavior is interdisciplinary, that is, it is based on concepts and theories about people that have been developed by scientists in such diverse disciplines as psychology, sociology, social psychology, cultural anthropology and economics.

Consumer behavior has become an integral part of strategic market planning.

Influence of Social science on buyer behavior studies

Economics: Human is a rational buyer who wants to take maximum utility out of fixed/minimum price.

Psychology: Acc. To psychology any human activity is directed towards meeting certain needs. (maslow's Need Hierarchy)

Sociology & Anthropology: Effect of reference group, society, role in society, etc.

Characteristics Affecting Consumer Behaviour (Psychological Factor)

1. **Perception-** is the process by which people select, organize, and interpret information to form a meaningful picture of the world from three perceptual processes.
2. **Attitudes-**describe a person's relatively consistent evaluations, feelings, and tendencies toward an object or idea

Sales Promotion Policy- Sales Promotion is a Marketing Discipline that utilizes a Variety of incentive Techniques to Structure Sales – Related Programs Targeted to consumers, Trade, and/ or sales Levels that Generate a Specific, Measurable action or Response for a Product or Service.

Sales Promotion has Three Goals that relate to target audiences

1. To Increase immediate customer sales.
2. To Increase support among the Marketer's sales force
3. To gain the support of the Trade in Marketing the product.

REVIEW OF LITERATURE

Vikrant Arya (2012) describe the consumer behavior in consuming/purchasing ayurvedic products and their attitudes towards herbal medicine in Himachal. In his survey finding revealed that consumers preferred ayurvedic product in comparison with allopathic more. consumers bought the ayurvedic health/food supplements for health prevention. Furthermore, the advertisement had affirmative impact on consumer, many consumers have firm mind set of selective Dabur, Himalaya, Vicco etc.

KDMA Chandrasekara (2014) describe in his long term demand forecasting for ayurvedic drugs manufactured by Sri Lanka ayurvedic drug corporation, that feasible long term demand forecasting for ayurvedic drugs manufactured by SLADC in the public sector and open market have been attended separately under this research. In his report Market Analysis by selecting 150 Nos. private sales outlets island wide and for private sector Ayurvedic Drugs Manufacturers by selecting 30 Nos. manufacturers island wide respectively with the long term data of SLADC were used in long term demand forecasting in open market. Time series Analysis was used for trends analysis in long term trend analysis.

Raja Charaborthy , Saikat sen (2017) describe in his study that spite of incredible advances in modern science, technology and allopathic medicine a large we are unable to provide quality healthcare to all traditional medicine particularly herbal medicine considered as a major healthcare provider around the globe particularly in rural and remote areas, he said that several steps have been taken in India to promote such product and integrate them into clinical practice, Evidence based incorporation of Indian traditional medicine in clinical practice will help to provide quality healthcare to all.

Shailaja Chandra (2016) describe that the growing interest in using Ayurveda product as a gentler, safer option to using modern medicine drugs with attendant side effects continues to be thwarted because claims about effectiveness and safety are not backed with evidence and clinical data. Contemporary Ayurveda needs to be packaged to reach the modern consumers in a way that he gets the benefits of access to treatment options that assist healing within the ambit of law. These obstacles have to be removed. Customer – based effectiveness studies using retrospective case material as well as research using interdisciplinary approaches are needed for public benefit. This is to be facilitated.

Ashutosh Chauhan (2015)-In his study he described that evidence based research is highly needed for global recognition and acceptance of Ayurveda, which needs further advancements in the research methodology review highlights various field of research including literary, fundamental, drug etc. The review further focuses to improve the research methodology for Ayurveda with main emphasis on fundamental research. This attempt will certainly encourage young researchers to work on various areas of research for the development and promotion of Ayurveda.

M.M Pandey, Subha Rastogi and A.K.S Rawat (2013) describes that numerous nutraceutical combinations have entered the international market through exploration of ethnopharmacological claims made by different traditional practices. This review gives an overview of the ayurvedic system of medicine and its role in translational medicine in order to overcome malnutrition and related disorders.

Hema Sharma Datta, S.K Mitra, Rangesh Paramesh and Bhusan Patwardhan (2008)- Theories and management of Aging: Modern and Ayurveda perspectives, according to him, Ayurveda, the Indian traditional medicine, describes aging with great details. This review provides modern and ayurvedic perspectives on theories and management of aging.

Hemant kumar P. bulsara, Nidhi Yadav (2018)- describe in his study on the current scenario of consumers buying behavior towards ayurvedic medicines in Gujrat, he said that ayurveda is the name for a comprehensive health care system that began in ancient India. This gives authors an opportunity to work on with an effort focusing on consumer buying behavior. The findings may be useful to online retailers, as well as marketers and practitioners to recognize and better understand the new trends that occur in the industry of ayurvedic products.

OBJECTIVE OF THE STUDY

The Major objective of the study is to examine consumer behavior and sales promotion of Ayurveda products in Bhiwani district in Haryana. In order to accomplish the broad objectives, the following objectives have been identified as:

1. To study the factors affecting consumer behavior.
2. To know consumer awareness as well consumer perception of Ayurveda products.
3. To study channel of distribution of Ayurveda.

SCOPE OF THE STUDY

1. The research type is descriptive research. The data are collected from Dealers of their sale records, customers and salesman of the ayurveda product. The research work will conducted in different areas in Bhiwani district mainly Haryana state conveniently selecting 50 chemists shop, 50 Ayurveda doctors, 100 customers, 50 Distributor and Retailer approximately.
2. The study will be done with the aim of understanding their perception towards the Ayurvedic products.
3. The result of the study will help the Ayurveda industry to identify the satisfaction level of the customers and demand on various benefits provided and promotional activities adopted by the company.
4. The result of the study will also help the industry to identify the areas where the company should focus in order to increase their customer base and generate more prescription.
5. The result of the study will also help the industry to bring out with a new plan and promotional activity which will create a new customer base for the industry.

OUR VISION

Put Ayurveda on par with modern time and also knowing the consumer buying behavior and sales and promotion policy of ayurveda in Haryana.

METHODOLOGY

I Collected only primary data among Ayurveda products chemist stores, customers who belief in Ayurveda to find out the Level of awareness of Ayurveda among, its demand based on prescription and its features in various angles. And secondary data will be collected by using Internet and books.

In this study we collect the data through Primary and Secondary source.

1. **Primary Data collection** -A survey is conducted to collect the primary data, all Ayurveda doctors, Ayurveda chemist shop, customers in Haryana State mainly Bhiwani District.
2. **Secondary Data collection** - It is collected through internet, magazines, books and newspaper reports etc.
1. **Research Design**– prepared research design states that the conceptual structure within which the study should be conducted and the studies descriptive in nature. Descriptive study will be used to describe the awareness among the Ayurveda doctors, Chemists, customers, distribution channels, retailers with regards to Ayurveda, its demand, efficiency, brand image and its features.

2. **Sample Unit Size** – sample size approximately 400, the selection of the sampling unit as respondents who are Retailers, Dealers, Customers, Doctors of Ayurveda prakartik chikitsalaya at Bhiwani District and in different Areas .
3. **Sample area – Bhiwani district**, (under more than 80 villages and some town and blocks are there)
4. **Statistical Technique** – the parametric sampling method is adopted for this research.
5. **Proposed research instrument** – Questionnaire is made for conducting survey.

NEED FOR AYURVEDA IN DEVELOPED COUNTRIES

1. It is truism that What you really value is what you miss, not what you have.
TM has become an extremely valuable commodity for the world today, precisely because it provides what the world misses the most.
2. Control of Infectious diseases , epidemics
3. Resurgence of life style disorders.
4. Growing demand for the traditional way of life .
5. Growing cost of health care.
6. Management of adverse and toxic effects of drugs.

FUTURE BENEFITS OF THE STUDY

This study pertaining to the consumer behavior aspects towards Ayurvedic system of medicine. Although there are huge opportunities for learning as well as potential. These kinds of studies may reveal the present status of mind, however there is prospect to this approach. The future scope of this study includes the field survey on consumer buying behavior towards Ayurvedic system of medicine and patterns of the respective behaviours of the consumers. The study may be varied out for a particular region for preferred set of products with a specific set of sample.

CONCLUSION –

The project is based on the aspect of consumer behavior and sales promotion of ayurveda products in Haryana. It is found that most of Ayurvedic companies are spending good deal of money for the sake of consumer oriented sales promotion.

The ayurveda Industry still needs to evolve a lot in India. We cannot be sure how the local ayurvedic companies complete the foreign technology in the ever changing world.

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A STUDY ON GROWTH OF ONLINE SHOPPING AND ITS IMPACT IN MARATHWADA REGION

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ABSTRACT

The purpose of the study is to observe and evaluate the growth of online shopping and its impact in Marathwada Region. In current scenario the new technologies are innovated and old technologies are upgraded that's why the online shopping has been increased day by day. The online shopping has become popular in now-a-days because the new generation is interested to buy goods by internet. The most of companies available the goods online like Amazon, Flipkart, Snapdeal etc. Hence, the goods have been easier to buy and the customers are giving preference to the online shopping.

Keywords: Technology, Online Shopping, Preference.

1. INTRODUCTION

Online shopping is also known as e-tail from “electronic retail” or e-electronic retail” or e-shopping. Online shopping is a form of electronic commerce which allows consumers to directly buy goods or services from a seller over the internet using a web browser like e-web store, e-shop, e-store, internet shop, online store etc.

Online shopping has become popular in all over the India, Maharashtra state and Marathwada region as well. In the modern age of computer majority of the people are engaged with the electronic media, devices like laptop, smartphones, Tabs etc.

The online shopping is a very easy process of buy the goods through the internet. Customers are buying goods sitting at home by using the different applications of shopping available on internet. The various companies help the persons to get available the goods online quickly and in minimum time.

In online shopping due to the revolution of technologies has been growth in now-a-days, and hence the online shopping has become positive impact in the mind of the customers.

2. REVIEW OF LITERATURES:

The following are the brief description on the literature reviews that has been undertaken for this study.

1. **Dr. Gagandeep Nagra, Dr. R. Gopal – Navi Mumbai (2013):** - have studied on “A study of factors affecting on online shopping behavior of consumers” and have conclude that the frequency of online shopping is relatively less in the country. They found that online shopping organizations can apply the relevant variables and factors to create their strategies and tactics.
2. **Amit Saha – RGI Guwahati, Assam (2015)** - has studies on “The impact of online shopping upon retail trade business”. The study shows that the various aspects about how retail businesses are being affected and also the various recovery mechanisms they are coming up with the counter those e-stores in their race of survival. They found that the advert of technology in recent period being the primary reason for it.
3. **Pritam P.Kithari & Shivganga S. Maindargi – Solapur (2016)** – have studied on “Customers attitude towards online shopping in India and its Impact” and have concluded that customers are using internet for online shopping but still for regular purchase most of customers first choice is manual shopping. They found that, to increase number of customers for online shopping there is need of extensive publicity and promotion by online shopping companies to attract all class of customers.

3. OBJECTIVES OF THE STUDY

1. To study the growth of online shopping and its impact in Marathwada Region.
2. To find out whether all class customers are use of online shopping or not in Marathwada Region.
3. To find out how many customers are availing the facility of online shopping in Marathwada Region.
4. To check present status of customers for online shopping in Marathwada Region.

4. IMPORTANCE OF THE STUDY

1. This study would help online stores and web stores to increase their sales through online shopping.
2. It tries to make awareness about the online applications of online shopping to buy goods by using these applications.

3. The study would help the customers how online shopping is beneficial for buying the goods and easy for use.

5. LIMITATIONS OF THE STUDY:

1. Researcher has done study only in selected area of customers in Marathwada Region because there has been limitation of the time period.
2. The study could not be conducted all over the district as it was difficult to analyze the samples because most of the customers keep their responses confidential or they don't want to share at public platform.
3. The study has been carried out only for the youngsters whose age between 18 to 35 years.
4. Researcher took only 100 sample respondents as sample to carry out result fulfilment of objectives.

6. ADVANTAGES OF ONLINE SHOPPING:

1. It is not necessary to have a physical store to buy and sell. This means that the place where the store is located is not so important for sales.
2. Online shopping is possible to offer and find a lot of options, easier to grow and offer more and better products & services.
3. Online shopping is a fast and efficient transactions and contracting.
4. Online stores are available every day at 24 hours.

7. DISADVANTAGES OF ONLINE SHOPPING:

1. It is essential to have a device from which to connect to the internet.
2. Impossibility to try the product before buying the product/goods.
3. Quality of products are not assured many times.
4. Delays in delivery & also product is not delivered at many places.

8. RESEARCH METHODOLOGY

For the study on growth of online shopping and its impact in Marathwada region the data was collected during the period from a mid of year 2019-20 (1st November, 2019 to 10th December, 2019) from different customers of Marathwada Region. Since the list consist more than 1000 beneficiating customers who have taken benefits of online shopping. Hence researcher have taken sample as 10% i.e. 100 customers randomly whose age in between 18 to 35 years and out of that total samples some samples collected from female customers and some from male customers.

8.1 Source of data Collection

The researcher relies on the use of the deductive method. For this study the researcher has used both primary and secondary data. Primary data was obtained from questionnaire survey and the secondary data was collected from reviewed literature and online websites.

8.2 Data Analysis

The collected data was analysed based on responses given by customers on various parameters and the main results will draw on the description of the study.

Table No-1: Age wise classification of respondents

Sr. No	Age	Frequency	Percentage
1	20	25	25%
2	22	25	25%
3	25	25	25%
4	30	25	25%
Total		100	100%

(Source: Field Survey)

Interpretation

Above table gives information about the age wise classification of respondents. Out of 100 respondents 25% of respondents from each age group between 20 years, 22 years, 25 years and 30 years respectively.

Table No-02: Classification of respondents based on benefited from online shopping

Sr. No	Options	Responses	Percentage
1	Yes	90	90%
2	No	10	10%
Total		100	100%

(Source: Field Survey)

Interpretation

Above table gives us information about whether customers get benefited from online shopping or not. Out of the 100 sample respondents, 90 respondents (90%) have replied with answer as yes whereas only 10% respondents have said they haven't benefited from online shopping yet.

Table No-03: Level of Satisfaction of customers towards online shopping

Sr. No	Options	Responses	Percentage
1	Good	15	15%
2	Better	20	20%
3	Best	65	65%
4	Satisfactory	0	0%
Total		100	100%

(Source: Field Survey)

Interpretation

Above table shows us information about the level of satisfaction of customers in Marathwada Region towards online shopping. Out of 100 sample respondent's majority of the respondents have given their respond as best to the online shopping and none of them were having opinion to the option as they are satisfactory. It shows that almost all customers in Marathwada Region are satisfied with online shopping.

9. RESEARCH METHODOLOGY

The major findings of the study about online shopping, level of customers of online shopping, awareness about the online stores, web stores of online shopping towards customers in Marathwada Region.

1. The researcher finds out from this study that the online shopping is very essential for customers now-a-days because of revolution of technology.
2. It is found from the study that; majority of the student have liked online shopping and they are conscious about online store.
3. Researcher has focusing on the present technological status and future possibilities of online shopping with reference to Marathwada Region.
4. It found in the study that in Marathwada Region some customers are still not satisfied with online shopping because of they ordered the product and get different product from the online store.
5. Study found that some customers are not aware about online shopping this clearly indicates that, there is a need of increasing awareness among the customers about online shopping through the advertisement and sales promotion so that they can avail the benefits of online shopping.

10. SUGGESTION

1. It has been found out from the research that the customers preferred the quality of product and stores of online shopping. Therefore, these aspects must be highlighted when promoting the product.
2. It is suggested that, the online shopping has needed some improvement in case the quality of product and delivery of product.

11. CONCLUSION

The researcher made a thorough analysis over the study of growth of online shopping and its impact, with reference to Marathwada Region. The current scenario is a modern and technological. Most of the persons are given preference to electronic devices like laptop, computer, tab, smartphones etc. Hence online shopping has increased day by day and made popular among the customers. Online shopping has been easier because of online stores, web stores like Amazon, Flipkart, Snapdeal etc. it provides services to customers at sitting home. Online shopping has time saved of customers and decrease transportation charges also. The data was collected from the customers who get benefits of online shopping in the Marathwada Region for this study.

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ANALYTICAL STUDY OF IMPACT OF BLOCKCHAIN TECHNOLOGY ON BANKING SECTOR

Dr. Vinay G. Bhole

ABSTRACT

In Japan the Blockchain technology was introduced in the year 2008. It was the first incidence of its introduction in Nakamoto's whitepaper as the underlying technology of Bitcoin. It is was expected to make positive difference in industries that completely depend on the security and safety of assets. Banks stands out as prominent in this list. Banks belong to the most important industry in the world. Banks have shifted most of their features suitable for online users. But still they have to perform other operations. With the advent of new technology the way these services are accessed has been adapted to mobile applications. However, the processes remained the same. Rather the time needed to complete transactions are still long. The banks generally do not update their system. It does not allow several features required to ease clients' processes. The entire journey ends up with frustration of clients. Blockchain technology can solve many issues involved the current banking system. The researcher has made focus on implementation of blockchain technology in bank. He has also concentrated on its impact on business transactions and payment settlements.

Keywords: Banking, Blockchain, Digital Currencies, Transaction, E-Payments.

INTRODUCTION

A blockchain is a digital ledger. It is created to record transactions conducted among various parties in the entire network. In simple words, blockchain is a peer-to-peer as well as Internet-based distributed ledger. It includes all transactions since its inception. All participants using the shared database in blockchain technology are nodes connected to the blockchain system. Each of these maintain an identical copy of the ledger. Each and every entry into a blockchain is a transaction. It represents an exchange of value between participants.

In blockchain technology, when one participant wants to send value to the other, all the other nodes in the network communicate with each other. They perform all this by using a pre-determined mechanism. It checks that the new transaction is valid. This mechanism is rightly called as a consensus algorithm in technical language. Once the transaction is accepted by the network, all copies of the various ledgers are updated with the new information. Multiple transactions are normally combined into a block. It is added to the ledger. Each block possesses information regarding the earlier blocks. All blocks in the chain are linked together. They are distributed in the form of identical copies.

All the participating nodes can add new, time-stamped transactions at any time. However, participants are not allowed by the system itself to delete or alter the entries once they have been validated by the network. If a node is altered in a previous block, it will not sync with the rest of the network. It would be excluded from the block chain itself. Thus, a properly functioning blockchain is immutable. It works in that capacity without a central administrator.

FEATURES OF A BLOCKCHAIN

1. **Real-Time Settlement:** A blockchain methodology enables the real-time settlement of banking transactions. It reduces the risk of non-payment by one party to the other in any transaction.
2. **Distributed Ledger:** The blockchain technology has peer-to-peer distributed network. It certainly contains a public history of all the transactions. A blockchain is distributed in a systematic manner. It retains a secured record of proof. The proof shows that the transaction has taken place.
3. **Irreversibility:** A blockchain contains a detailed verified record. It maintains record of every single transaction. All the transactions ever made on that blockchain can be traced. This prevents double spending as tracked by the blockchain system.
4. **Censorship Resistant:** The economic rules developed by blockchain model do provide monetary incentives. These incentives are provided for the independent participants. It is to continue validating new blocks. A blockchain grows without an owner.

ADVANTAGES OF BLOCKCHAIN

1. **Distributed Nature:** The main advantage of blockchain technology is the distributed nature. In capital markets, the transfer of value between two parties needs centralized transaction processors. They are banks or credit card networks. These processors minimise counterparty risks. They are beneficial for each party as they serve as an intermediary. They carry centralize credit risks with them.

2. **Breakthrough Innovation:** The blockchain has a special characteristic feature. It is a breakthrough innovation. It is considered reliable as all copies of the blockchain ledger are maintained by all active nodes.
3. **No Single point of Failure:** Blockchain system lacks a single point of failure. Each block in the chain indicates to the earlier blocks. They prevent deletion of transactions once they are added to the blockchain.

BLOCKCHAIN ADMINISTRATION 3.0

While considering the developments in distributed ledger technology efficiency gains. Therefore, it is provided with 'administration 3.0'. In blockchain administration 1.0 is paper format ledgers. Similarly, administration 2.0 is the transition from paperwork to digital ledgers. This transition feature is a highly important.

It is necessary for a new wave of efficiency innovations. This will be hurdle to some. We think the overall impact of this new technology will be positive. By using blockchain technology commercial banks, insurance companies and asset managers have the ability to reduce their cost-base. While implementing the same, technical challenges, rules and regulations become hurdle. This is the reason why one can expect an evolutionary development path to the final success.

When the debate comes on distributed ledgers, one often and casually uses the word blockchain. There are two important factors necessary to remember regarding the blockchain. They are the real innovation in distributed ledger technology. The other one is the applications which are developed around it.

Blockchain is an example of a distributed ledger system. It is not necessarily the only one or the final surviving one. In this research paper we have used both these words interchangeably.

Secondly, blockchain technology was initially developed as the underlying technology. It was in support of a crypto currency concept rightly named Bitcoin. However, blockchain got developed far beyond its initial use.

MAIN CHARACTERISTIC FEATURE OF DISTRIBUTED LEDGER TECHNOLOGY

1. Reconciliation of blockchain through cryptography.
2. Availability of a number of copies at a time.
3. Availability of Granular access control.
4. Special blockchain feature of irreversibility to prevent tampering with previous transactions.

HASHING AS AN IMPORTANT CHARACTERISTIC FEATURE OF BLOCKCHAIN

Hashing is an important feature of blockchain. Similarly time stamping is also a basic key function of block chain technology. To be very precise, hashing is the process of running a computer algorithm. It is over content in order to create an alphanumeric character. It cannot be back-computed into the original content. It directly allows validating a claim and determining its sequential priority. A hash always remains the same if the underlying asset has not been changed. All the time hashing only works one-way. It indicates that, it is not possible to trace back what the hash restricts from validating the transaction.

REVIEW OF LITERATURE

1. The article written by Joseph Louis de la Rosa in 2018. It analyses and correctly synthesizes the basic findings in scouting current and future applications. It is about of BT to OI in key areas. They are apart from the IP management. They are also different than OI for smart cities. It also means digitization of the collaborative work and smooth cooperation. It is across boundaries of companies by means of smart contracts.
2. The research done by Friedrich Holotiuk, Francesco Pisani, and Jurgen Moormann in the year 2017 is very significant. The research delivers insights into how changes in payments. It also focusses on progress and the direction to the firms have to think to overhaul their BMs.

OBJECTIVES OF THE STUDY

1. To study the Blockchain Technology.
2. To study its impact on Banking.
3. To review operations overview.
4. To study the benefits of its applications on the technology in the Indian Banking Sector.

METHODOLOGY

For the purpose of the study secondary data was used. The data required for the study was collected from websites, journals, magazines, census reports and books.

ANALYSIS AND CONCLUSION

Blockchain is definitely the most popular technologies in the financial services industry as on today. The Distributed Ledgers lead the trend of Gartner Inc.'s Hype Cycle for Emerging Technologies. It allows organizations to connect with new business and payment ecosystems.

The change from a centralized technical system to distributed ecosystem has become possible. It is enabling platforms now laying the foundations for new business models. These models are in payments, digital banking and financial transaction technologies.

Financial services industry is presently the pioneer and leader in this new technology. Blockchain has the potential for all participants in a business network. It is to share a system of records that will provide consensus and immutability and finality around the transfer of assets. It is within the business network.

The reason behind the blockchain is problematic as it is in the distributed ledgers. It may lead to new business models. The existing processes could move away from the hub. It will also be away from spoke model with intermediaries.

In the banking industry and financial services, the main transactions in the processes are to take into account asset ownership as well as asset or value transfer.

In settle a transaction, data messages are exchanged between the banks and financial institutions. Sometimes, it includes 'trusted' middlemen agencies.

This technology has the capacity to pinpoint certain limitations. These are concerned to the current processes. They are directly affecting modernizing, streamlining and simplifying the traditional designs. They are related to financial industry infrastructure with a shared fabric of common information. The merits brought by this technology can be classified into cost savings, efficiency and transparency.

ADVANTAGES OF BLOCKCHAIN IN BANKING & FINANCE

1. **Cost Savings in Forex Volatility:** The technology adopted in cross border payments can assist the clients and banks. They help to take advantage of the forex marketplace. They help to get the best deal transparently from the market players.
2. **Save Costs over Delayed settlements:** In a distributed payment network, blockchain technology ensures the transaction settlement information. It is also processed along with the payment messages.
3. **Efficiency Redundancy:** This technology enables the network to be operated by all nodes in the system. All the members of the payment system i.e. banks, financial institutions effectively become the participating nodes in the blockchain network.
4. **Reduced Time for Processing:** Mostly all banking processes are linear in nature. They are hierarchical too. In assembly line of the manufacturing industry e.g. maker-checker, cross check, approval processes etc.

Thus, blockchain can help in improving the speed of processing transactions. It also reduces decision making time of the organizations. It results in reduced cost of processing. It also enhances transparency of decisions to all nodes. Smart Contract in the transaction database gets automatically executed.

Smart contract feature in the blockchain makes available speed of processing. It also helps banks to create and execute complex business rules. They have minimal human intervention.

THE WAYS BLOCKCHAIN TECHNOLOGY AFFECTS TRADITIONAL BANKING

The ways blockchain technology could affect traditional financial institutions are, payment, clearance and settlement systems, fundraising, securities, and loans and credit.

The advantages brought by BCT can be broadly classified into

1. **Cost Savings:** The blockchain technology is cost saving as it saves multiple costs and expenses.
2. **Fraud Prevention:** As the blockchain technology is developed on the basis of sharing of information, it prevents misuse. It is shared across the parties and consensus during transactions. It saves on reconciliation expenses between banks. It also prevents losses because of documentary frauds.

3. **Save expenses and overheads on Forex Volatility:** The use of blockchain technology used in cross border payments is very common. It can help the consumers and banks to take advantage of the forex marketplace. It is necessary to get the best deal. It has transparency from the various market players. As the transactions are processed in near realtime, the players need not suffer through the tensions of currency volatility.
4. **Save Costs over Delayed Settlements:** Blockchain technology ensures the transaction settlement information. It is processed along with the payment messages. As the payments and thereafter settlements happen in realtime, the participating banks financial institutions can enjoy minimum load on the treasury management. It is to keep their settlement accounts properly funded.
5. **Efficiency:** Blockchain technology enables the network to be operated by all nodes in the system. All the members of the payment system – banks, financial institutions effectively become the anticipating nodes in the network.
6. **Minimum Time for Processing:** Most of the conventional banking processes are hierarchical. e.g., cross check and approval processes.

The marker checker-approver process helps the Financial Institutions to gain control. It puts the emphasis on ownership of decisions. It delays in decision making. It can result into to longer processing time. It also costs and lower customer satisfaction.

7. **Faster Settlements:** Blockchain can help to address KYC. It also identity management challenges. A lot of data to prove identity is already there in digital form. Blockchain technology enables immediate verification. It can reduces multiple recordkeeping. It also eliminates reconciliation and minimizes errors. It facilitates faster payments and asset settlement.
8. **Saving in Decision Making Time:** Blockchain helps in improving the rate of processing transactions. It is done through reducing decision making time. It reduces cost of processing and enhanced.

CONCLUDING REMARKS

Blockchain was introduced in the year 2009. Recently, it was introduced in banking and financial sector. Till date nobody thought of its use in the banking industry. Today, it has become the ultimate technology to beat in almost all the financial sectors.

This modern technology offers the banking industry many special opportunities. However, certain challenges must overcome for noticeable effects to happen in the banking sector. To utilise this technology in the banking sector, the user must study and follow recent privacy rules, regulations and laws.

It is the most important task for blockchain users to protect individual and organisational data. It is also important to take care of safety of such data. The need for regulatory functions needs to be controlled by the concerned authorities. The financial sector is all time flooded with huge data.

The data scalability must be studied and secured prior to deploying blockchain in the financial sector.

In conclusion, blockchain can entirely change the banking sector. The only requirement is the right application and use.

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IMPACT OF INFORMATION TECHNOLOGY IN CRM INDUSTRY

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ABSTRACT

The general objective was to find out factors affecting warehousing management. The specific objective was; to determine the effect of information technology on warehouse management.

The researcher used descriptive research design taking Jomo Kenyatta University of agriculture and Technology as a case for this study. The sampling design adopted was stratified random sampling. Data collection was done by use of questionnaires and informal interviews.

Majority of respondents noted that the organization had managed to implement warehouse management system. The study recommends continued investment and training in information technology and adoption of better information sharing tools.

The result shows that Information Technology and Cloud services has apparently advanced the CRM functions and working processes. It has eased the functionality by adding automation and cloud platforms.

Keywords: IT solutions, Impact of IT, CRM, Cloud services

INTRODUCTION

The general objective was to find out factors affecting warehousing management. The specific objective was; to determine the effect of information technology on warehouse management.

The researcher used descriptive research design taking Jomo Kenyatta University of Agriculture and Technology as a case for this study. The target population was 930 and a sample size of 50. The sampling design adopted was stratified random sampling. Data collection was done by use of questionnaires and informal interviews.

Majority of respondents (75%), noted that the organization had managed to implement warehouse management system.

The study recommends continued investment and training in information technology and adoption of better information sharing tools.

Management solutions. Instead of buying a single system rated "very best," managers are happy to purchase exactly what they need right now to evolve and expand their systems (De Boer, 2002). Interoperability and expansion are the key buzzwords right now, since facility managers must be ready to integrate their systems with clients and with other vendors. Overall, the trends affecting warehousing services currently stem from end user demands for speed, efficiency, and environmental awareness (Kouvelis, 2006).

PROBLEM STATEMENT

Well managed warehouse system help an organization keep proper track of inventory, maintain the levels of inventory as per requirement, increase in accuracy, reduce labor costs and ensure proper maintenance as well as storage of stock. This kind of management will provide ease and convenience to the suppliers and distributors to keep the track of inventory and maintenance as well (Harold, 2002). Thus, warehouse management is very beneficial in storage and maintenance of stock or inventory. Indeed a number of studies indicate that an efficient warehouse management system is crucial to an organization's operational performance Kerridge, 2006; Larson, 2004; Liao 2007). However, many organizations today have not taken the issue of warehousing into account, storage of goods and distributions from the same warehouses are done haphazardly that is without any order, theft cases have been on the rise giving a compromise on the general ethics of workers, due to the disorganization and inadequate incorporation of modern information technology which come with good warehouse management systems, it has resulted to inaccuracy order management techniques which has dealt a major blow to the organization as a whole (Ackerman, 2008; Cooper, 2002).

Information technology has been identified as one of the biggest influencers of the business world today (Bartezzaghi, 2003). Though many believe that information technology mainly benefits large operations that have considerable financial muscle, there is evidence that even small warehouses can benefit from IT innovations. This can be achieved through partial automation of their operations through emerging internet based services (Govindarajan, 2007).

Organizations are trying their best to cut on costs and increase profitability. Warehouse management is one of the areas in which substantial cost savings can be made. Warehouse maintenance cost reduction can only be achieved by making appropriate design decisions on the strategic characteristics of warehouse facilities (Kerridge, 2006).

It is from these issues that the researcher planned to carry out a study based on the factors affecting warehouse management.

OBJECTIVE OF THE STUDY

- a. Assess the impact of Information Technology in CRM
- b. Impact of Cloud on CRM
- c. Impact of Information Technology on Warehouse Management

DATA COLLECTION METHODS

Empirical research is a way of gaining knowledge by means of direct observation or experience. Empirical evidence can be analyzed quantitatively or qualitatively. Through quantifying the evidence or making sense of it in qualitative form, we have answered empirical questions, which should be clearly defined and answerable with the evidence collected (usually called data). We have tried to describe accurately the interaction between the instrument (the human senses) and the entity being observed. We conducted a study with a sample size of 150 IT professionals of different age groups randomly selected in India.

Independent T-Test has been used for hypothesis testing to help us conclusively answer, how strongly Information Technology influences the CRM Industry and the CRM processes.

OBJECTIVE OF THE STUDY

- To study the influence of Information Technology on various factors affecting the Warehouse Management and CRM processes in the Retail industry
- To study the role of Information Technology in Warehouse and Stock Management
- To study on the highly influential Information Technology elements applied in international CRM Industry.
- To explore the elements of Information Technology used in CRM Industry
- To study the impact of Information Technology directly or indirectly affecting the end consumers
- To analyse the highly influential Information Technology Cloud services on CRM industry

RESULTS AND DISCUSSIONS

INTERPRETATION

According to the survey and responses conducted, we can say that Information Technology has a direct impact on the CRM industry and the processes. Information Technology helps manage the stock across the warehouse and thereby reduces the wear and tear of the items. Also, Information Technology helps reduce damages while transportation as Information Technology can ease transportation and handling processes. Thus, we can say that Information Technology has a lot and a good impact on the CRM industry.

CONCLUSION

According to the outcome of the study, it is clear that end consumers use the CRM processes and systems which are driven by Information Technology. Majority of the sample of randomly picked end customers are directly been impacted by the system from where they buy, sell or procure products. The age group of majority of the respondents was between 25 – 44 years. It is clear that young working adults are more aware and they use the Information Technology systems for shopping apparels and products/ services online. If Information Technology system is not advanced and upgraded it is really difficult to manage huge number of customers and their data.

For older people, mostly their children do the shopping or buying of products or services. According to the study, it is clear that Information Technology systems play a vital role in the retail business and it has a great impact on consumers' buying behaviour. The highly effective Information Technology system most wanted by bigger giants across the globe. Under the recommendation, Information Technology systems, adopted by international brands are indicated, hoping those elements will help the retail stores improve their business or the CRM processes.

On the basis of the carried out research one may state that there is a strong dependence between Information Technology systems and CRM processes and systems which impact the buying behaviour of the consumers' and also affects positively the productivity of the system. One may also say that the presentation of products complying with those principles directly affects an increase of sales and it has a stronger impact on customer behavior.

RECOMMENDATIONS

- The Visual Merchandising of the apparels must be pre tested before finalizing.
- The apparels should always be placed in a neat and systematic order. There should be proper synergy between the season and the apparels displayed.
- Customer should be offered facilities of Drinking water and Seating arrangements
- If the retailers are allowed, and the weather is clear, then the retailers should display their apparels with the help of mannequins outside their store, as it creates a sense of excitement among the customers.
- The retailers should organize their stores logically and groupings should be created within categories, so that all the merchandise of one type, color, size is positioned together.
- The use of lights attracts the customer's; hence the retailers should make the use of lights within the store as well as window displays and create attention.

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INTEGRATION OF ERP WITH CLOUD SERVICES

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ABSTRACT

IT Industry has seen an onset of a new technology in the form of ERP Solutions. We discussed about what this "ERP Solutions" can do to the global market with its very promising services which are not only rendering instant economical outputs, but also are providing an enhanced way to control and manage corporate IT infrastructure. But as we know, any new technology comes with its pros and cons and ERP Solutions is no different. Despite being an advantageous technology providing ease of access and high data storage facility it has several issues that come along with it and the owner of the data is not able to control these issues related to storing and managing the data.

Keywords: ERP, ERP integration, Cloud Services

AIM/SCOPE

The focus of this research is more on study of adoption of cloud computing and its feasibility for SME's and business sector and other aspect of cloud computing after adoption considering mainly of security factors. It aims to study, IT professionals who are associated in IT business decision making and to take other IT expert's view on subject matter; as they are the best who know in and out of technology and what influences overall adoption of cloud computing. Moreover, the general public opinion is also looked into in order to have a generalized idea.

INTRODUCTION

Example, in past while booking a flight ticket, there was human intervention required where the ticket agent use to check the available tickets on the portal and if the tickets are available, the agent will block that seat for the customer. Once the seat is blocked, the customer will make the payment and the ticket is booked. Once ticket is booked, a separate team will take over for issuing invoices, payment receipts, etc. Another team will coordinate for seat allocation. Today, everything is automated, the customer log's in to the portal, selects the airline, select the carrier, select the seat, pay the fares, select the food menu, receive the payment invoices, payment receipts, etc.

In modern times, technological advancement has made life very easy. The time has gone, when there humans were required to intervene and take actions. Today, systems are smarter; they react and take actions over every event. As soon as the event is triggered, the system reacts, responds or takes action. Human intervention is no more required. This is due to the introduction of Enterprise Resource Planning (ERP). ERP is a software which is used in small scale organizations, medium scale organization or even Large scale organizations. Even, multi nationals need an ERP system for smooth functioning of the business.

There is a wide-ranging pool of options and services that cloud computing can bring to any existing ERP System comprising;

- Online Backup – a solution that is useful for all business whether small or large scale doesn't really matter and in case of disaster recovery the process becomes really smooth. In case where there is no cloud service, the data backup is the sole responsibility of the customer. The cost of data backup is tremendously high and again there is a need of a physical system to store this backup. Once the ERP is been integrated with Cloud services, it is the responsibility of the Cloud Service provider to take backup of the entire data been stored in cloud space. Some smart systems like Amazon Web Serices, provides an option of data back up at 3 different locations free of cost.
- Hosted Email – a requirement for all kind of business and cloud computing is providing it in most cost-effective manner. In past, email services were available with less storage space like 500 MB or 1 GB. If the email box exceeds its size it was chargeable or the emails have to be deleted. Today, with the introduction of cloud storages, majority of the email service providers provide unlimited email data storage without even charging a single penny to the customers. This revolution is again due to introduction of Cloud Services.
- Virtual Servers – can be used by SMEs and even bigger organizations, if they want to get away with aging physical hardware and replace them with irreplaceable and safe virtual server machinery. In past, whenever the physical servers became obsolete, it was a big project for the organizations to physically move their

data from the physical servers to other new configuration physical servers. This activity is time consuming and requires planning, funding, time and disruption to the routine business as the servers would not be available for use during the period of data migration. Today, Cloud service providers allow migration of data from one server to another at just one click. This feature allows the organizations to replace their old servers with new servers within few minutes without disrupting the day-to-day business. Also, cost to migrate the data would go down drastically as this is mostly automated with few configurations. We do not even need technical astute engineers to do so as most of the steps are automated and system prompted, unlikely while migrating the data in physical servers there was a need to have senior architect and engineers to plan and execute the task.

OBJECTIVE OF THE STUDY

1. To analyze the challenges of integrating ERP with Cloud Services.
2. To explore the level of awareness and adoption of cloud computing.
3. To explore the level of awareness and adoption of ERP solutions.
4. To analyze the implementation of the ERP systems being currently done in IT and ITES industries.
5. To analyze security aspects while implementing ERP solution on Cloud environment.
6. To recognize the integrated role of ERP and Cloud Services in IT and ITES industries.
7. To analyze cost savings by integrating ERP solutions with Cloud services.

DATA COLLECTION METHODS

Empirical research is a way of gaining knowledge by means of direct observation or experience. Empirical evidence can be analyzed quantitatively or qualitatively. Through quantifying the evidence or making sense of it in qualitative form, we have answered empirical questions, which should be clearly defined and answerable with the evidence collected (usually called data). We have tried to describe accurately the interaction between the instrument (the human senses) and the entity being observed. We conducted a study with a sample size of 150 IT professionals of different age groups randomly selected in India.

Independent T-Test has been used for hypothesis testing to help us conclusively answer, how strongly Information Technology influences the CRM Industry and the CRM processes.

RESULTS AND DISCUSSIONS

IT Industry has seen an onset of a new technology in the form of ERP Solutions. We discussed about what this “ERP Solutions” can do to the global market with its very promising services which are not only rendering instant economical outputs, but also are providing an enhanced way to control and manage corporate IT infrastructure. But as we know, any new technology comes with its pros and cons and ERP Solutions is no different. Despite being an advantageous technology providing ease of access and high data storage facility it has several issues that come along with it and the owner of the data is not able to control these issues related to storing and managing the data.

CONCLUSION

Because of ERP Solutions on cloud, the resources will be shared via internet and deliver efficient computing. Even these technical advancements will additionally push the usage of technologies like ICT in business world, particularly for SME's. The pay-as-you-go model is likely to transform the capital expenditure to operational expenditure. From the costing point of view, it seems quite reasonable for SME's. They have the facility and flexibility to opt from a vast range of business applications available in the ERP Solutions. Moreover, developers can be more innovative in implementing ERP solutions to build new software applications. The ERP solutions implemented on cloud will serve as latest income source for the software industry also. For countries like India, cloud computing is a significant economy enabler.

RECOMMENDATIONS

- The Visual Merchandising of the apparels must be pre tested before finalizing.
- The apparels should always be placed in a neat and systematic order. There should be proper synergy between the season and the apparels displayed.
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ROLE OF E-COMMERCE IN BRANDED VS NON-BRANDED JEWELLERY

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ABSTRACT

“Consumer is a person who consumes” an individual belonging to a particular gender , age , sex , religion etc and who purchase goods or services for ultimate use rather than for resale or use in further production .Research into e-commerce is becoming more and more popular ; however the jewellery industry is somewhat special . Technology advancements and new business models are force at work and consumers are continuously demanding more revolutionary ways from online businesses to close the gap between what they see online and what they feel when they receive their orders .

Jewellery is always woman’s favourite : it never ceases to attract eyeballs with their dazzling looks and stupendous designs . These days e- retailing is one of the emerging ways to sell expensive as well as user – friendly and affordable jewellery . E-commerce is vital to the success for the increase in imitation jewellery business as online purchase of fashion jewellery has revolutionized the purchasing habit of the consumers , with various types of jewellery been brought in the limelight through these portals .

E-commerce allows customers to review the varied range of jewellery in the comfort of their home , work place or while in transit . Apart from selling through their website , several e-commerce sites like Amazon , Jabong have been contributing to their product sales . The online brands have an efficient exchange and return policy , which saves an individuals time and enables an easy exchange or return . Salient features like 7-day return policy and home try on service by fashion jewellery brands , have attracted more customers to their pool .The study has been done to find out the change of consumer behaviour towards online shopping of jewellery .

Keywords: Buying Behaviour, Branded jewellery, Non-Branded jewellery, Brand Awareness

INTRODUCTION

The basic fundamental behind E-commerce are improving the quality of service as well as the speed of delivery of the goods . E-commerce helps the consumers to save more time during the online transactions . E-commerce is helpful to both businesses and customers . E-commerce is that new platform of the business which needs re-invention . According to Research and Markets the global jewellery markets the global jewellery market’s growth estimate is 5% per year over the next 5 year and the online jewellery market is expected to capture 10% of the market by 2020 .

Online jewellery market is at a boon and retailers expect good demand even from the upper class affluent women , in the upcoming festive and wedding season . India export 75% of the world’s polished diamonds , as per statistics from the Gems and Jewellery Export Promotion Council (GJEPC) and contributes largely to the country’s foreign exchange earnings . contributing about 29% to the global jewellery consumption , the Indian market is worth \$60 bn as of 2017 and is expected to reach \$100-110 bn by 2021-2022 .Due to globalization and liberalization the rural market in india is the largest potential market in the world .

OBJECTIVES OF THE STUDY

1. To understand the factors which influencing the consumer behaviour while buying jewellery.
2. To analyse the impact of advertisement while purchasing the jewellery .
3. To study the various promotional strategies used by the companies and their impact on the consumer .

RESEARCH METHODOLOGY

Research is examining by the secondary data insight the problem of Role of E-commerce in buying branded vs non - branded .

TYPE OF RESEARCH

Research is Exploratory Research .

COLLECTION OF DATA

- **Secondary Data**

It was collected from internal sources . The secondary data was collected from the articles , newspapers , journals and internet

• Primary Data

They were the main sources of research . The method of collection of primary data would be direct personal interview through structured questionnaire .

SAMPLING PLAN

Since it is not possible to study the whole population it is necessary to obtain representative samples from the population to understand its characteristics ,

1. Sampling units would comprise of men and women .
2. Research instruments questionnaire .

SAMPLING SIZE

Sample size has taken from the population is of 100 respondents .

LITERATURE REVIEW

Due to technological innovations, the traditional way of shopping has become insufficient for individuals. Individuals now prefer easy ways to reach brands and stores and it can be said that that 'The Internet has fundamentally changed customer's notions of convenience, speed, price, product information and service. As a result, it has given marketers a whole new way to create value for customers and build relationships with them' (Kotler and Armstrong, 2012; 532).

Mehul Choksi - MD Gitanjali Group

The Gems & Jewellery sector have been playing a very important role in the Indian economy and has been contributing to 6% to 7% of the country's GDP, apart from large scale employment generations and foreign exchange earnings. However, I am pleasantly surprised by the fact that the value created by Gems & Jewellery sector estimated at about INR 1,00,000 crores is as high as the apparel sector and much higher than many other sectors in India. The steps taken by the Indian Government to liberate Indian Gems & Jewellery sector in the 90's, is one of the important reason for the increase export contribution by this sector. The liberalization has also resulted in shift from the unorganized to a more organized set of players which resulted in greater transparency and adoption of higher quality and design standards. The recent steps taken by Government to restrict import of gold is definitely having a negative impact on Gems & Jewellery sector and we hope that this is only a short term measure and the Government quickly removes restrictions on gold consumed for jewellery - manufacturing. The gems and jewellery industry plays an important part in the Indian economy. In addition to boasting a large online gems and jewellery market, India has a unique situation in terms of both demand and supply.

E-commerce provides consumers more choices, more information and more ways to buy. Moreover, e-commerce will remain as a medium to sell products, service and content over the internet (Korper and Ellis, 2001: 1).

According to the latest data, more than two billion people use the internet worldwide which equals to 30 percent of the world's population. Furthermore, individuals spend 5 percent of their total time on the internet with online shopping activity. (We are social, 2012).

Due to technological innovations, the traditional way of shopping has become insufficient for individuals. Individuals now prefer easy ways to reach brands and stores and it can be said that that The Internet has fundamentally changed customer's notions of convenience, speed, price, product information and service. As a result, it has given marketers a whole new way to create value for customers and build relationship with them' (Kotler and Armstrong, 2012; 532).

Interpretation:- About 70% consumers are graduate 12% are post graduate and rest 18% non-graduate.

Source:- Primary Data

Interpretation:- About 80% consumers are aware about online jewellery shopping

Source:- Primary Data

Interpretation:- Only 10% consumers have experienced online shopping

Source:- Primary Data

Interpretation:- About 85% consumers agreed that they find flexibility of time as one of the most convenient factor in terms of Online shopping

Source:- Primary Data

Interpretation:- The consumers who have experienced online shopping 40% consumer preferred www.gitanjalishop.co , 15% from www.caratlane.com , 10% from www.snapdeal.com and 4% www.myantra.com , 10% from www.bluestone.com , 10% from www.pcjewelers.com , 8% from titan.co.in , 15% from www.amazon.com and 5% from www.myntra.com

Source:- Primary Data

Interpretation:- About 90% consumer came to know about online shopping from Television, 10% from radio, 10% from Social Network sites and rest from other channels of communication.

Source:- Primary Data

Interpretation:- 70% consumers say they find more patterns in online shopping

Source:- Primary Data

Interpretation:- 85% consumers feel 'trust factor' plays vital role in online shopping

Source:- Primary Data

Interpretation:- About 55% consumer say online jewellery making charges is less as compared to retail jewellery shops.

Source:- Primary Data

Interpretation:- 36% of consumer prefers Diwali, 25% of them said Dussehra, 20% of them said Akshay-Tritiya, 15% of them said Gudipadwa and 10% them said other occasions they prefer.

Source:- Primary Data

Interpretation:- About 45% consumer said education of consumer has no impact towards online shopping and rest said it has impact.

Source:- Primary Data

Interpretation:- 70% of the consumer felt education on online jewellery shopping will have positive impact towards their buying behavior.

Source:- Primary Data

Interpretation:- 75% of the consumers feel that commodity market has impact on their buying behavior.

Source:- Primary Data

CONCLUSION

From the above survey conclude that E-commerce jewellery stores are larger as the ladies find it very comfortable and get a lot of mesmerizing designs for purchasing the jewellery . Now a days ladies are exposed to the changing global trends and they increasingly shop online . The trend of online jewellery shopping has been preferred by the educated consumers . Trust factor plays vital role in buying online jewellery shopping . Festival seasons has experienced the maximum sale . Where maximum number of consumer prefer shopping . Easier accessibility , home delivery , easier payment option and finance schemes . Online jewellery shopping has less making charges as comparison to retail shopping which makes their shopping experience more attractive .

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IMPACT OF MOTIVATION ON EMPLOYEE PERFORMANCE AND JOB SATISFACTION: A STUDY ON EMPLOYEES OF ACADEMIC SECTOR IN INDIA

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ABSTRACT

Motivation is the driving force that guides the efforts of employees towards organizational goals. In order to survive in this highly competitive and challenging global economy, organizations need to pay special attention to the needs and motives of the workforce. A motivated employee is the most valuable asset of the organization which renders its contribution in the long term productivity of the organization. This research paper tries to establish the relationship between different motivation and employee performance. It investigates the impact that different motivational tools have on the performance of employees at workplace. Emphasis was laid on the different motivational theories proposed by great psychologists. Data was collected from different individuals using self-administered questionnaire and personal interview. The collected data was analyzed using descriptive statistical analysis methods. The results obtained depict that the motivational strategies used by organizations have a direct impact on their efficiency and productivity.

INTRODUCTION

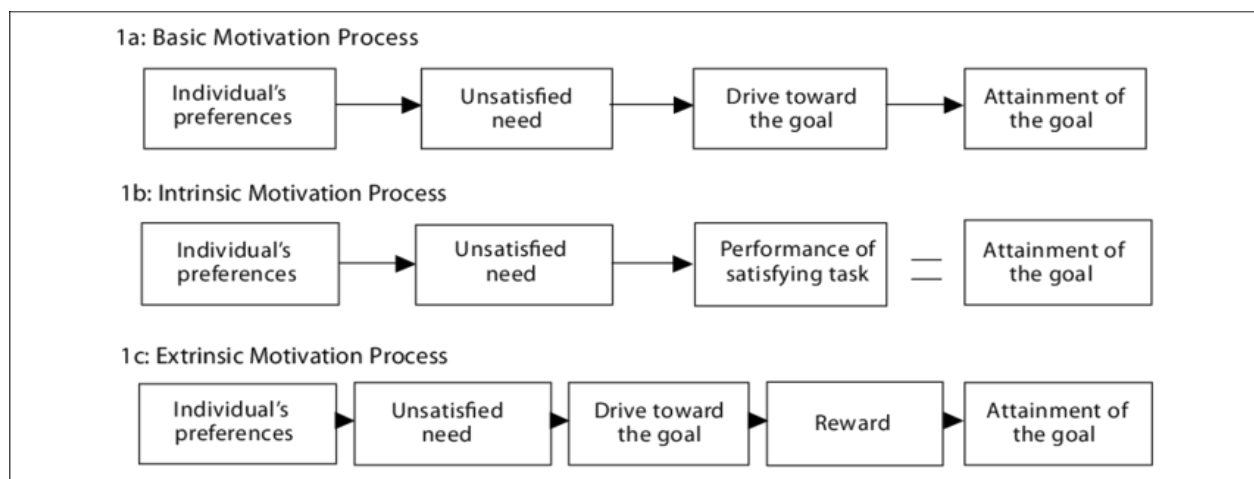
The success of an organization is attributed to many factors- internal as well as external, its human capital being the most pivotal. The fundamental factor that enhances their efficiency and productivity is Motivation. The term motivation is derived from the word ‘motive’. Therefore, motives are forces which induce people to act in a way, so as to ensure the fulfillment of a particular human need at a time. Behind every human action there is a motive. Therefore, management must provide motives to people to make them work for the organization. Motivation is a planned managerial process which stimulates people to work to the best of their capabilities by providing them motives based on their unfulfilled needs. Hence Motivation is about identifying unsatisfied needs of the employees and stimulating them to work towards their fulfillment.

“Motivation means a process of stimulating people to action to accomplish desired goods.” —William G. Scott

“Motivation is the process of attempting to influence others to do your will through the possibility of gain or reward.” — Flippo

In terms of Human Resource Management, motivation may be defined as the desire of an employee to perform his or her duties in an highly efficient manner with full commitment. The main characteristic of motivation is that it guides human behavior towards specific goals. Motivation not only plays a role in job performance but also in acquisition and retention of talent. Realizing the importance of employee motivation, the organizations try to link organizational objectives with various financial and non- financial motivational tools.

The figure below shows how motivation drives the efforts of people towards attaining the goals. . It is both intrinsic and extrinsic forces that drive or push individuals to work However, this motivation can be intrinsic or extrinsic. In intrinsic motivation, the drive towards the goal is based on internal satisfaction that a person experiences whereas in extrinsic motivation, that drive is linked to a specific reward which in turn motivates the person towards attaining the specific objective.



Source: researchgate.net

A motivated employee contributes positively towards accomplishment of organizational goals. Instilling satisfaction in the employee is a crucial task of management. Channelizing the efforts of the employees in a desired direction has always consumed the thought of the management.

As the present globalized era measures an organization's success by its revenue, it becomes imperative to set different agendas to get competitive advantage and set bulls eye on profitability. A good corporate governance ensures financial as well as non financial viability of the firm. In order to attain these goals and survive in this highly competitive era, organizations have started taking initiative to keep their skilled workforce motivated. As it is said that human resource is the only resource that is capable to putting life into the other lifeless resources of the organizations, its role in financial profitability cannot be undermined. The onus of acquiring and maintain competent workforce lies with the Human Resource department of any organization. Keeping in view the growing importance of employee motivation, different new concepts related to Human Capital, HR Accounting, HR Audit and so on have emerged. According to Chowdhury, M.S (2006) motivation is the evolution of supporting and moving behavior of directed goals. Motivation is the inner power that pushes employees to achieve the organizational and personal objectives (Reena et al,2009). The tendencies of employees to manifest some features such as productivity, efficiency, team spirit, and truancy among others are directly or indirectly tied to the degree of their job satisfaction. Job satisfaction connotes the overall feeling of an employee about people, rewards, procedures and the degree of emotional stability on the job. It could also be perceived as a psychological state propelled by unquantifiable satisfactory work condition (Somvir, 2013).

PROBLEM STATEMENT

The different researches and studies have identified different factors that have an impact on employee performance, Motivation being one of them. Through this study, we try to establish the relation between employee performance and satisfaction with their motivation.

OBJECTIVES OF THE STUDY

Research objectives define the research work and the way it preceds. This paper has been written with the objective of analyzing the importance of employee motivation in their job satisfaction and hence their contribution to the productivity of the organization.

1. To establish the relationship between motivation and Job satisfaction.
2. To study the impact of Motivation on employee performance.

LITERATURE REVIEW

In the previous journals and books of this specific subject, different aspects of motivation have been discussed in a rational way. A lot of work has been done on Motivation and its relevance in organizational setting. The term *motivation* is derived from the Latin word *movere*, meaning "to move." Motivation can be broadly defined as the forces acting on or within a person that cause the arousal, direction, and persistence of goal-directed, voluntary effort.

Previous researches on the subject have emphasized that motivation has a direct and powerful impact on employee satisfaction. There is a positive correlation between the two. Studies have highlighted the importance of motivational tools and strategies adopted by different organizations in acquiring and maintaining skilled employees. The long term retention and commitment of employees is linked to how well motivated an employee is in his or her organization. According to Locke (1976), Job satisfaction is the emotional gladness or pleasurable situation which occurs from the assessment of one's job involvement. However, Job satisfaction can be enhanced by factors such as nature of one's connotation to their managers, level of gladness with their workplace, the side of the physical environment in which they sort out their jobs etc.

SUMMARY OF DIFFERENT RESEARCHES WITH THEIR FINDINGS

Researcher	Findings
Gardner and Lambert (1972)	motivation as it is about the moving employees toward doing the job and achieving the goal through rewards
Steers and Porter (1987)	work motivation is a factor that changes employee's way of working and behavior
Anne (1994)	motivation as a term that refers to a process that draws, controls, and sustains certain behaviors each employee has different needs and desires which means the motivation factors is different from one employee to another motivated employees will feel as having a strategic partnership with the

	organization and their commitments and loyalty will increase from day to day
Allscheid & Cellar (1996)	in order to be good in anything in the workplace, the only talent required is motivation.
Buttner and Moore (1997),	“Happy Employees Make Productive Employees” found that when employee attitudes improved by 5%, customer satisfaction jumped by 1.3%, and the revenue increased by 5%. So, motivated employees usually produce more than others and hence the customer satisfaction increases.
Urichuck (2002)	motivated employee will increase the capability of the organization to achieve its mission, goals and objectives. It will also engage all to build a strong organizational culture A well-motivated organization for sure will have more motivated employees and hence they will be more productive and this will lead to extreme cost savings (Urichuck, 2002).
Yongsun, Barbara, Christy (2002)	satisfied employees positively impact corporate culture, resulting in many intangible but equally important returns
Hislop (2003).	business and company’s succession depends on motivated employee; they can make all the difference in the company’s ability not to just survive but also to succeed
Khodov (2003)	some experts argue that companies who spend money on motivating their employees is waste of money but most of them agreed that the wasted money is achieved in a very short time by the motivated employees).
Michael and Crispen (2009)	having a motivated workforce provides the competitive advantage that the organization seeks and better employee performance helps the organization achieve higher productivity.
Nandanwar , Surnis, Nandanwar (2010).	Motivated employees can impact a company’s bottom line and make the workplace somewhere employees look forward to interact with instead of just a place to “pick up a paycheck”
Ludivine, (2011)	Sometimes people who are given responsibilities feel motivated and do their best and work hard accordingly ().
Surbhi S, (2012)	Main objective of any organization is to classify the needs and wants; and to get commitment of workers.

Based on these researches, several motivation theories have been developed which emphasize on different needs which act as motivation for people at different stage of their life cycle and at different levels in the organization.

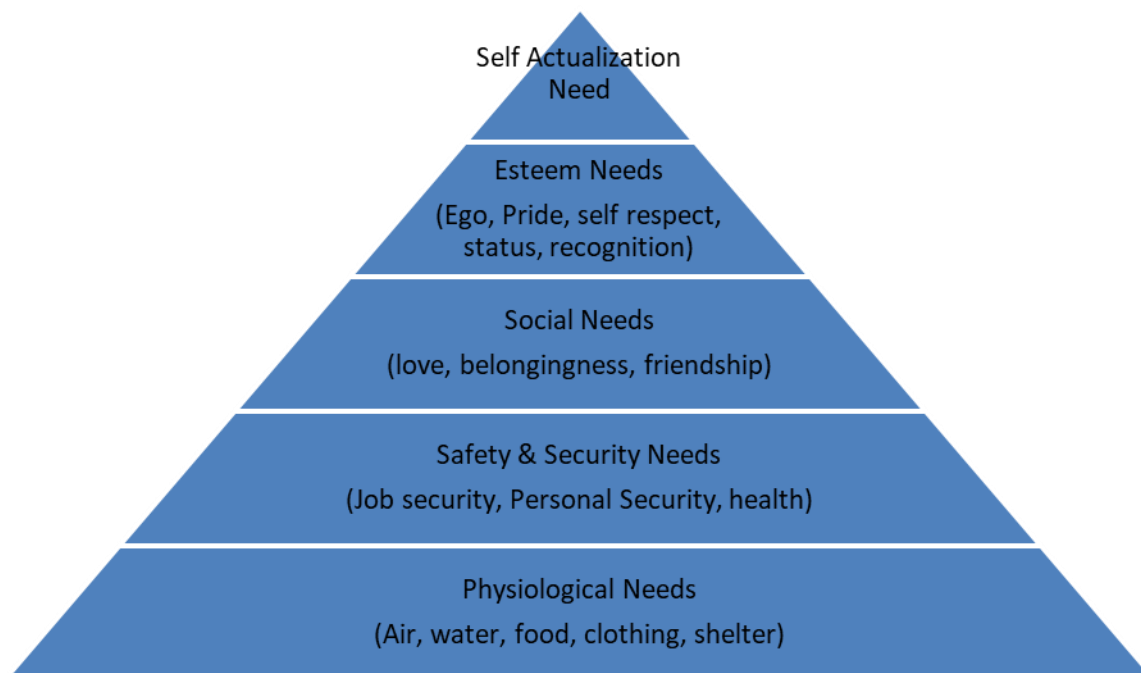
THEORIES OF MOTIVATION



MASLOW'S HIERARCHY OF NEEDS

"The story of the human race is the story of men and women selling themselves short." — Abraham Maslow

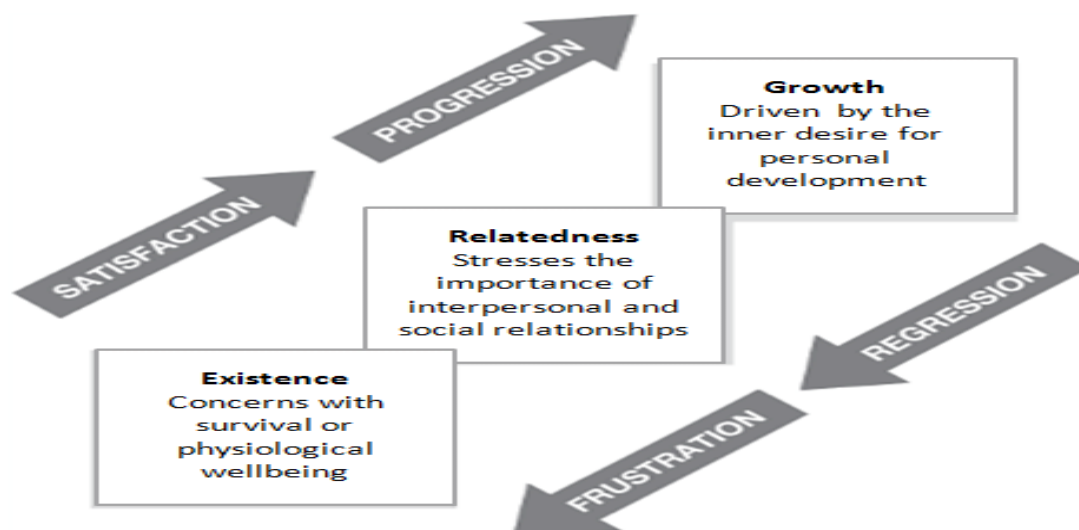
Abraham Maslow was an American psychologist perhaps best known as one of the founders of humanistic psychology and for his famous hierarchy of needs. According to Maslow, individuals are motivated by unsatisfied needs. Maslow suggested that people have a large number of needs which drive their behavior. As one need is satisfied, another higher order need emerges. Maslow grouped the five needs into two categories - **Higher-order needs** and **Lower-order needs**. The needs at the base of his hierarchy are more basic in nature as physiological and safety needs, gradually moving up into more social, emotional and self-actualizing needs as one moves up the hierarchy.



ALDERFER'S ERG THEORY

Clayton P. Alderfer developed a simplified form of Maslow's Hierarchy of Needs by condensing five needs into three categories: Existence, Relatedness and Growth. As each need is satisfied, it serves as a motivation to fulfill a different need.

- Existence - the need for basic material existence, like physiological health and safety
- Relatedness - the need for interpersonal connections, social status and recognition
- Growth - the need for personal development, including creative and meaningful work



Source: oreilly.com

HERZBERG 2 FACTOR THEORY

In 1959, Frederick Herzberg, a behavioural scientist proposed a two-factor theory or the motivator-hygiene theory. According to Herzberg, there are some job factors that result in satisfaction while there are other factors that prevent dissatisfaction.

Motivators : These are the factors like challenging work, recognition for one's achievement, responsibility, opportunity to do something meaningful, involvement in decision making, sense of importance to an organization that ensure satisfaction or motivation.

Hygiene factors: These are the factors which do not ensure satisfaction but their absence causes dissatisfaction e.g. status, job security, salary, fringe benefits, work conditions, good pay, paid insurance, vacations.

MC CLELLAND'S THEORY OF NEEDS

He proposed three new categories of needs that add a new perspective to Motivation

- nAch-This is the need for Achievement
- nPow- This is the need for Autonomy and control over others
- nAff-This is the need for Affiliation

RESEARCH METHODOLOGY

The main purpose of this research was to find the impact of motivation on employee performance and Job satisfaction in Academic sector.

Data Source: In order to establish the relationship between Motivation and Job satisfaction, data was collected from both Primary and secondary sources.

Primary data: It was collected from employees working in Academic sector through Questionnaire and personal interview.

Secondary data: It was collected through different books on Organizational Behavior, different journals on Management and topic of employee Motivation on Internet.

SAMPLING

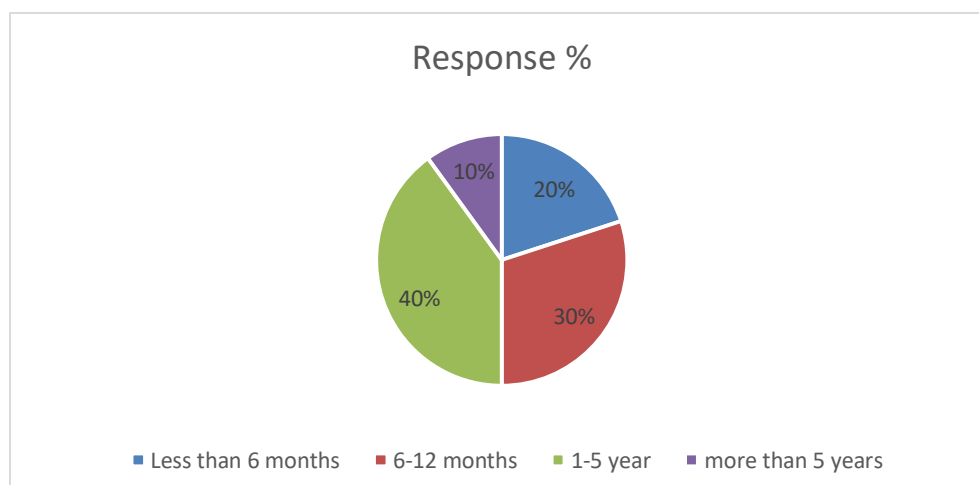
Type of sampling: Convenient Sampling was used to get the data

Sample Size: 50

DATA ANALYSIS AND INTERPRETATION

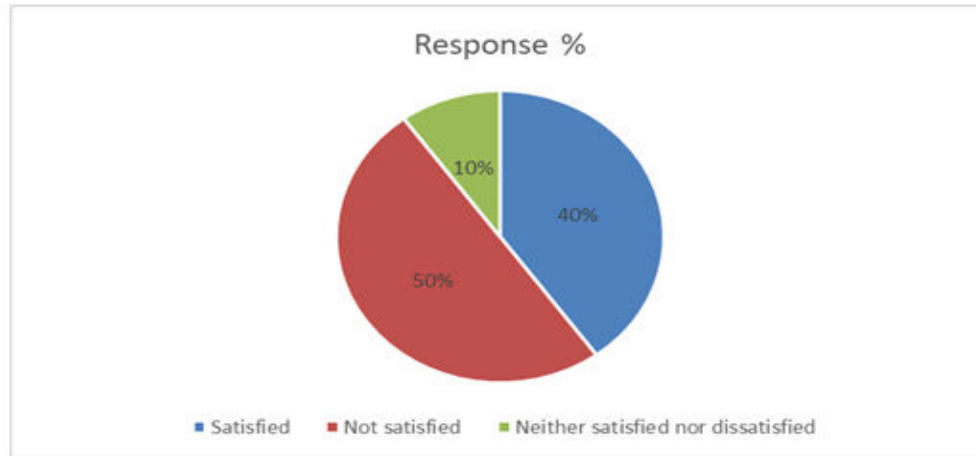
Q1. How long have you been working in your present organization?

Options	No. of respondents	Response %
Less than 6 months	10	20%
6-12 months	15	30%
1-5 year	20	40%
More than 5 years	5	10%



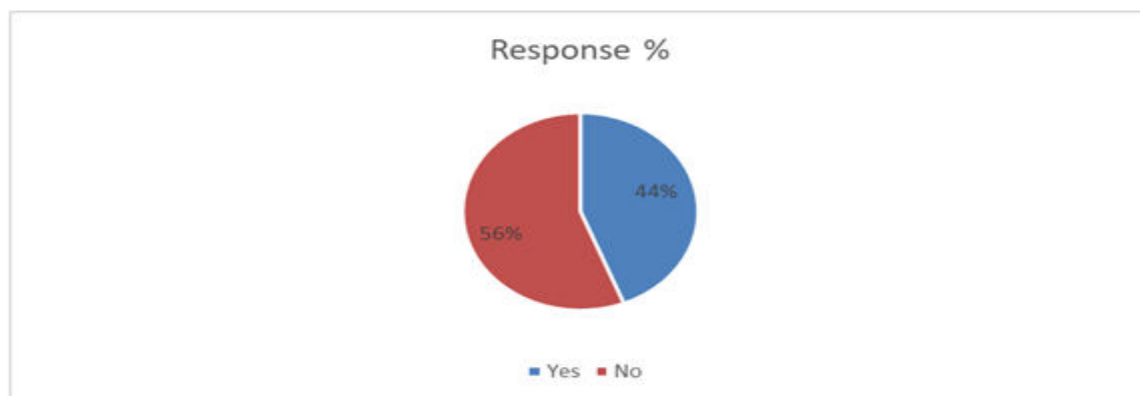
Q2. Are you satisfied with your current position and salary?

Options	No. of Respondents	Response %
Satisfied	20	40%
Not satisfied	25	50%
Neither satisfied nor satisfied	5	10%



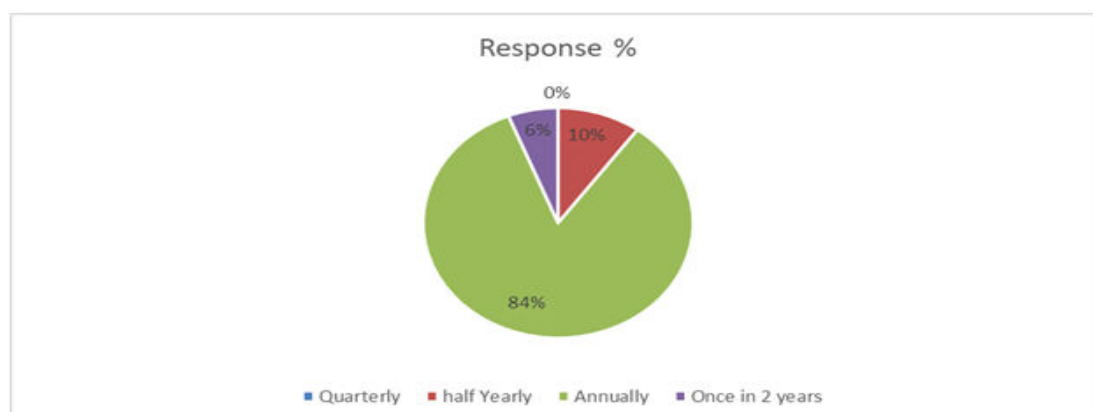
Q3. Do you think your employer is concerned about your financial and non financial needs?

Options	No. of Respondents	Response %
Yes	22	44%
No	28	56%



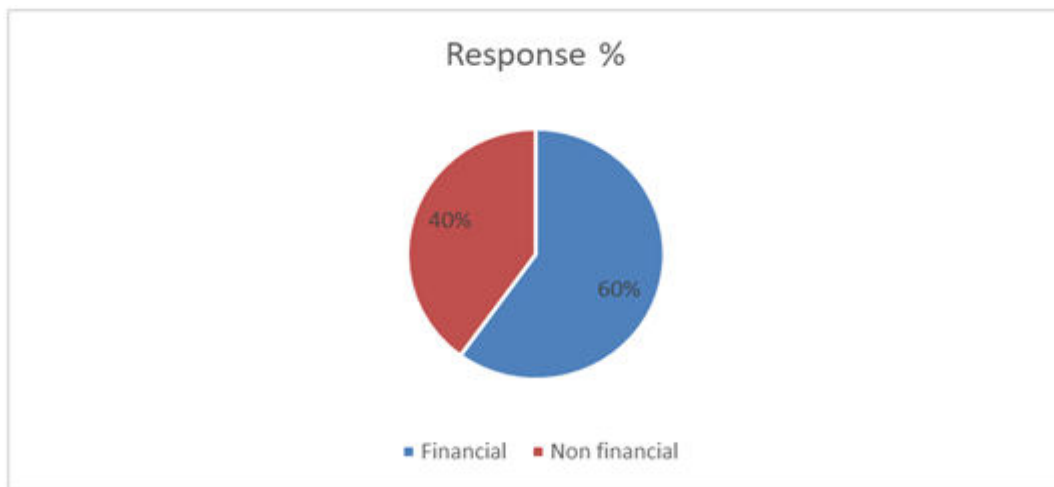
Q4. How often there is a Performance Appraisal in your organization?

Options	No. of Respondents	Response %
Quarterly	0	0%
Half yearly	5	10%
Annually	42	84%
Once in 2 years	3	6%



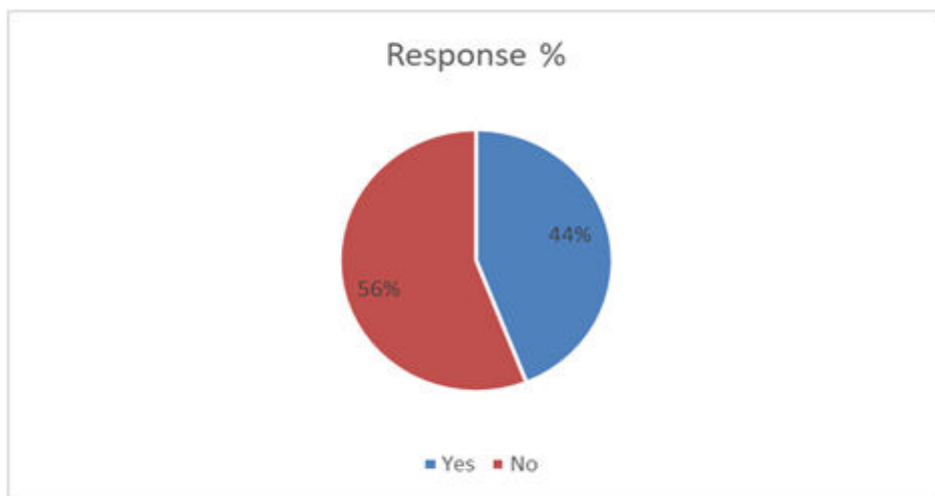
Q5. What type of Incentives motivate you more?

Options	No. of Respondents	Response %
Financial	30	60%
Non Financial	20	40%



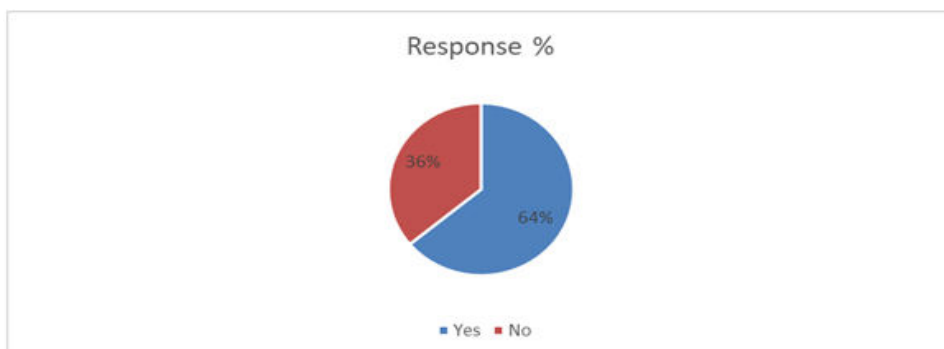
Q6. Does your appraisal match your expectation?

Options	No. of respondents	Response %
Yes	22	44%
No	28	56%



Q7. Does your organization give you fringe benefit like Medical reimbursement, Paid vacations and so on?

Options	No. of respondents	Response %
Yes	32	64
No	18	36



Q8. Rate the following related to your organization on a scale of 1-5

(1-Very Poor, 2- Poor, 3- Neither Poor nor good, 4- Good, 5-Very good)

		1	2	3	4	5
a	Working Conditions	5%	15%	25%	40%	15%
b	Boss	3%	8%	19%	65%	5%
c	Relationship with your colleagues	2%	5%	20%	53%	20%
d	Image of your organization in the area	0%	2%	18%	65%	25%
e	Timely payment of Salary	15%	30%	12%	35%	8%
f	Job security	10%	25%	0%	30%	35%
g	Health & Safety of employees	0%	15%	25%	40%	10%

FINDINGS OF THE RESEARCH

After analyzing the data collected from employees of different organizations, the following can be inferred:

- Retention of the employees in academic institutions is not very good as only 10% of the respondents have been working in their present organizations for over 5 years.
- About 50% of the employees don't seem to be satisfied with their salary and current position in the organization.
- More than 50% respondents feel that their employer is not concerned about their financial and non-financial needs.
- Less than 50% (44%) feel that their appraisal matches with their expectation.
- Less than 50 % of the population has a positive perspective related to the working conditions, boss, timely payment of salary, Health and Safety of employees.

The above findings indicate that motivation has a direct impact on employee performance and Job Satisfaction as majority of the respondents do not seem to be happy with the type of motivation- their salary, their current position and their appraisal offered to them at the workplace and hence they do not stay in a particular organization for long. However, majority seem to be satisfied with their boss, colleagues, fringe benefits and working conditions. As it can be explained from the Herzberg's two factor theory, these are hygiene factors do not have much effect on the satisfaction and motivation of employees but their absence definitely causes dissatisfaction. Motivation plays a key role in maintaining and retaining workforce.

LIMITATIONS

The collection of primary data requires a lot of time and effort. This research was also accompanied by certain constraints like time and money. However sincere effort was made to contact employees separated by geographical barriers, some people still could not be contacted personally. Due to limitation of time, sample size was kept small. In addition to these, ethical considerations and loyalty of employees towards their organization might have restricted accurate feedback. Despite of all these, data has been collected and analyzed in the best possible manner.

CONCLUSION

After the conduction of this research, it can be concluded that "A motivated employee is definitely a satisfied employee". Motivation as a concept is given a lot of importance in theory but its application in practical perspective still needs to be worked upon. The organizations which devote their time and effort in designing and administering better compensation, work conditions and other benefits definitely have a competitive edge. They can leverage upon the long term commitment and loyalty of their human capital. However, in academic sector not much emphasis is being laid on employee motivation and retention. Not many academic institutions have planned motivational strategies for employee engagement. In order to keep an employee satisfied and ensure its productivity, a lot needs to be done as far as financial and non-financial rewards are concerned.

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OCCUPATIONAL STRESS AMONG FEMALE WORKFORCE

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ABSTRACT

Today's era where everyone is running behind success, male and female both have joined hand in hand and are working in various sectors to uplift their career and cover their financial requirement. Along with success many on the females are facing occupational stress and for which they have to pay a heavy amount in medication and other alternatives. This research is based on those factors of occupational stress for especially women category and the ways to overcome stress either individually or from company's end. A primary survey was done between female workers and some factors were figured out. Some recommendations are also given to overcome stress.

Keywords: occupational stress, job insecurity in workplace, high targets, meditation and yoga, health hazards.

A. INTRODUCTION

Gone those days where there was a world called Male Centric World and there was almost no identity of any woman anywhere. Now In Western countries as well as in India, females are given equal opportunities in the economic world and are given equal importance in society. Education system has beautifully aroused the strength and intellectual inside women and they have been growing up hand in hand with men. They have proved their self-identity and have proved that they are no less than man. But then male dominated society and narrow minded people are still stick to the old era and believe that Male are the primary bread earner and all the house hold things must be taken care by the women of the house. This is what it should be no matter how she will manage to do all the households along with her career so that economic inflation can get ridded of. Woman in this century has proven her Excellency in outside world and is more inclined towards building her career, taking all those work challenges and gaining more expertise in work and is helping her home to cope up from economic pressure of inflation. With more women now working than ever before, it is studied that there has come an enormous growth in young women trying their hands in many of the formerly male dominated jobs, which includes the field of management, production, manufacturing, software, legislation and many more. Deloitte study shows multiple tasks in a beautiful manner at a time, one can expect the negative side of society or work culture any time. As 24 hour a day cannot be changed or increased, and each work demands its own time, keeping a balance between each task is not an easy task. When A task demands time and does not get then frustrations arises from own self and from the task givers also.

The problems which has been isolated and treated unique only for women includes: Pressure of getting a tag of "token Woman", absence of role models, strains of coping with prejudice and sex stereotyping in society and workplace and open discrimination from fellow employees, employers and the organizational structure and climate. These kind of stresses always play as an obstacle while maintain Family and work life and creating enormous pressure on woman mind.

Stress does not come with discrimination among Male and female workforce. Only a strong sense of responsibility and loyalty towards your organization can create more stress in your mind. The key causes of stress for woman can be heavy workload, tight schedule, family finance concern and personal health concern.

B. OBJECTIVE OF THE STUDY

This research is done among female workforce to:

1. Find out the major factors of stress among women
2. Know the Stress related health hazards among women
3. To suggests various ways to overcome stress

C. LITERATURE REVIEW**1. Definitions**

Occupational stress often stems from unexpected responsibilities and pressures that do not align with a person's knowledge, skills, or expectations, inhibiting one's ability to cope.

The National Institute for Occupational Safety and Health (NIOSH) expresses that job stress as a very harmful, responses which can be physical or emotional that occurs when the job requirements of the job do not match with workers' competencies, resources, or needs.

Beehr and Newman (1978) defined Occupational stress as “A condition arising from the interaction of people and their jobs and characterized by changes within people that force them to deviate from their normal functioning.”

Some definitions of Occupational stress also suggests that It is the physiological and physical effects of negative activity in the workplace as a result of many factors including external events, internal events, job demands and colleague behavior.

Occupational stress can be explained as the physiological and emotional responses that originate when workers feel an imbalance between their work demands and their capability and/or resources to meet these demands.

Occupational stress or Job stress refers to the job-related nervousness and anxiety, which affect people’s emotional and/or physical health - Netemeyer, Maxham, and Pullig, (2005).

Weiman (1977) defined: “Occupational stress is the sum total of factors experienced in relation to work which affect the psychosocial and physiological homeostasis of the worker. The individual factor is termed a stressor and stress is the individual worker’s “reaction to stressors.”

Occupational stress is a discrepancy between the demands of one’s job and the ability to respond in an effective manner - Rabin, S., Feldman D. and Kaplan, Z. (1999).

MIND (1992), surveyed more than 100 British companies in which 63% of the surveyed companies believed that workplace related problems causes nearly of more than equal stress on an employee than his/her personal problems , which clearly defines occupational stress.

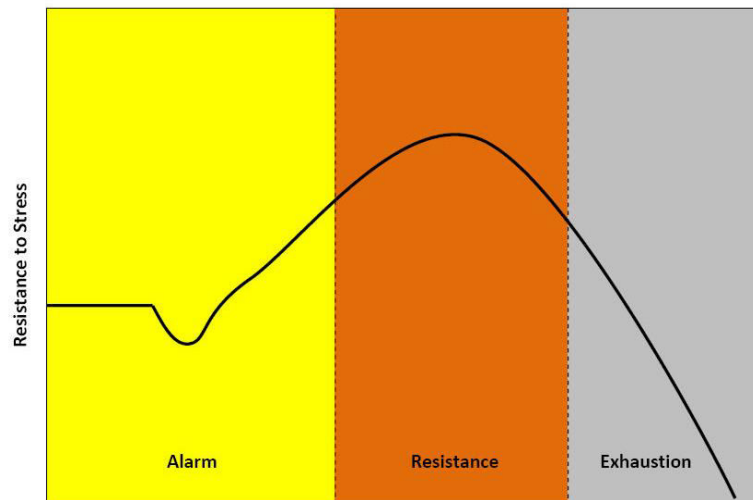
According to CWA (Communications Workers of America) , Occupational stress is one of the major health hazards of the modern workplace. It accounts for much of the physical illness, substance abuse, and family problems experienced by millions of blue and white-collar workers. Occupational stress and stressful working conditions have been linked to low productivity, absenteeism, and increased rates of accidents on and off the job.

2. Causes of occupational Stress

Source	Causes Of Occupational Stress
Market Business News	Working Condition. Workload, Narcissism and psychopathy, Sexual Harassment, Bullying, Workplace conflict, Long working Hour, economic factors. Status, colleagues
BMJ Journals	Intrinsic to job, role in organization, Career Development, Relationship at work , organizational structure and climate
Communications Workers of America	Job Control Stressors, Job Demand Stressors
Stephan J. Motowidlo John S. Packard Michael R. Manning	Job Conditions, Individual Characteristics(job experience, fear of negative evaluation, fear of lay off)
N. A. GILLESPIE, M. WALSH, A. H. WINEFIELD, J. DUA and C. STOUGH	work overload, time constraints, lack of promotion opportunities, inadequate recognition, inadequate salary, changing job role, inadequate management and/or participation in management, inadequate resources and funding, and student interaction
Dillard & Fritz	Work relationships within the organization. Problematic relationships among managers, subordinates, co-workers in form of office bullying, threats of violence, biased opinions, unsupportive management, harassment, dark leadership, artificial social or physical workplace isolation
Better Health Channel, Victoria State Government	Organization culture, Bad management practices, Job content and demands, Physical work environment, Relationships at work, Change management, Lack of support, Role conflict, Trauma.
Concordia University –St. Paul Blogs	Low morale,poor management style, high job responsibility, career concern, traumatic events, subpar work environment
Cleveland Clinic	family obligations, caregiving for children and/or elderly parent (statistically more likely to be a woman) and work responsibilities

3. Different Theories of Occupational Stress

a. GAS Model for Stress given by Hans Seyle(General Adaptation to Stress) -



Source:

Stages of GAS

1: Alarm

Upon perceiving a stressor, the body reacts with a “fight-or-flight” response and the sympathetic nervous system is stimulated as the body’s resources are mobilized to meet the threat or danger.

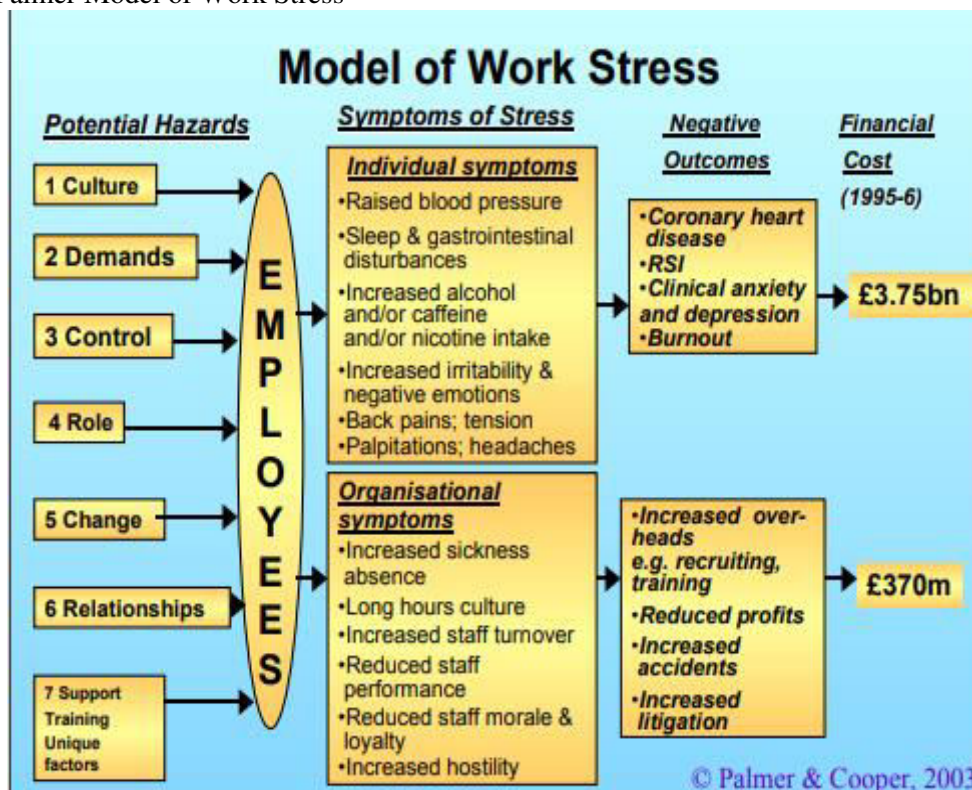
2: Resistance

The body resists and compensates as the parasympathetic nervous system attempts to return many physiological functions to normal levels while body focuses resources against the stressor and remains on alert.

3: Exhaustion

If the stressor or stressors continue beyond the body’s capacity, the resources become exhausted and the body is susceptible to disease and death.

b. Cooper & Palmer Model of Work Stress



(Source : Palmer, Stephen & Cooper, Cary & Thomas, Kate. (2003). Revised model of organisational stress for use within stress prevention/management and wellbeing programmes—Brief update. International Journal of Health Promotion and Education. 41. 57-58. 10.1080/14635240.2003.10806222.)

The HSE (2001) have found seven key hazards that can cause stress for employees:

- Culture: of the organisation and how it deals with stress (for example: long hours culture; are managers receptive to discussing stress with staff; racism; sexism; lack of consultation)
- Demands: exposure to physical hazards and workload (for example: poor ventilation; volume and complexity of work; unrealistic deadlines; shift work; insufficient personnel)
- Control: employee involvement with how they do their work (for example: control balanced against demands; too much supervision; lack of autonomy)
- Relationships: includes all work relationships (for example: bullying and harassment; conflicts)
- Change: its management and communication to staff (for example: little or no communication with staff about change; fears of redundancy)
- Role: employee's understanding of role; jobs clearly defined (for example: conflicting roles; vague job descriptions)
- Support, training and factors unique to the individual: support from peers and line managers; training for core functions of job; catering for individual unique differences.

4. Consequences of Stress

A growing body of evidence indicates that when stress reactions persist over a prolonged period of time, this may result in more permanent, less reversible health outcomes such as chronic fatigue, musculo skeletal problems or cardio vascular disease.. Some medical books even suggest that 50-80% disease are due to Stress only.

According to report given by AFT's Health Safety Programme, Stress can cause physical and psychological problems and they can show early stress symptoms and long term stress symptoms.

Early Stress Symptoms

Physical Symptoms	Psychological Symptoms
Headache	Forgetful
Stomach Problems	Anger
Over/Under Eating	Frustration
Sleeping disorder	Anxiety
Bodyache	Depression
Skin Rashes	Irritability
Teeth grinding	Feeling Powerless

Long Term Stress Symptoms

Physical Symptoms	Psychological Symptoms
High Blood Pressure	Serious Depression
Disease	Burnout
Immune system dysfunction	Suicidal behavior
Asthma	Alcoholism
Spastic Colon	Domestic Violence
Diabetes	Substance abuse

(Source : AFT's Health and safety Programme)

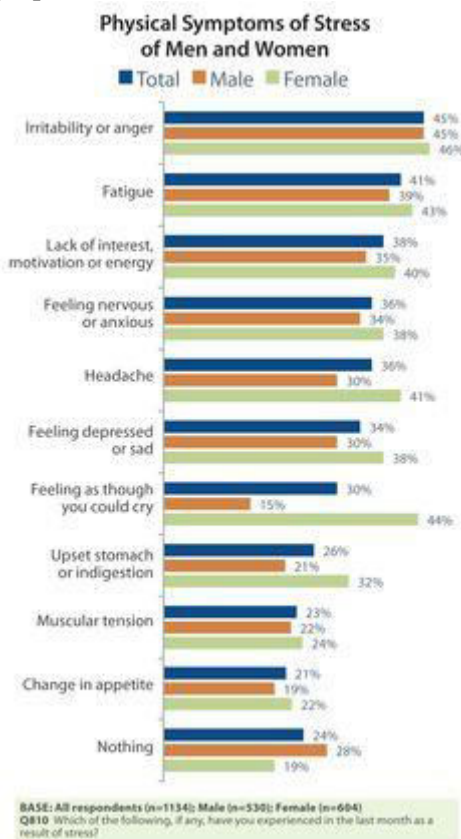
Some consequences of stress are listed in the below table:

Source	Consequences
National Women's Health Information Center	Stomach Ailments, Skin Reactions ,Emotional Conditions, Sleep problems, Difficulty Concentrating, Heart Trouble ,Lowered Immune Response
Womenshealth.gov	Headache and migraines, Depression and anxiety, Heart problem, Upset Stomach, Obesity, Problems getting pregnant, Menstrual cycle problem, Decreased Sex Drive

Carolyn Gregoire

Reduced Sex Drive, Irregular Periods, Acne breakouts, Hair loss, Poor digestion, Depression, Insomnia, Decreased fertility, Increased risk of heart disease and stroke

Another Study shows the physical symptoms of stress of both male and female .



D. RESEARCH METHODOLOGY

Some questionnaires were filled by the 70 working women and their opinions were then analyzed.

Type of research	Quantitative Research
Research Purpose	Exploratory
Type of Data	Primary
Data Collection method	Questionnaires
Types of sampling	Simple Random sampling
Sample Size	70

Explanation to the terminology:

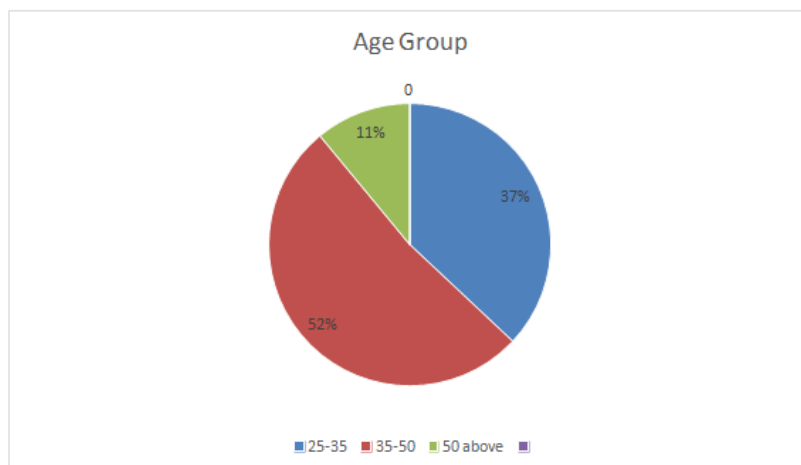
- Quantitative Research: It defined as a systematic investigation of phenomena by gathering quantifiable data and performing statistical, mathematical, or computational techniques.
- Exploratory research: It is conducted to explore a group of questions. The answers and analytics may not offer a final conclusion to the perceived problem. It is conducted to handle new problem areas which haven't been explored before. This exploratory process lays the foundation for more conclusive research and data collection.
- Primary Data: It is data that is collected by a researcher from first-hand sources, using methods like surveys, interviews, or experiments. It is collected with the research project in mind, directly from primary sources.
- Questionnaires: a set of printed or written questions with a choice of answers, devised for the purposes of a survey or statistical study.
- Simple Random Sampling: It is a subset of a statistical population in which each member of the subset has an equal probability of being chosen
- Sample Size: It measures the number of individual samples measured or observations used in a survey or experiment.

E. DATA ANALYSIS

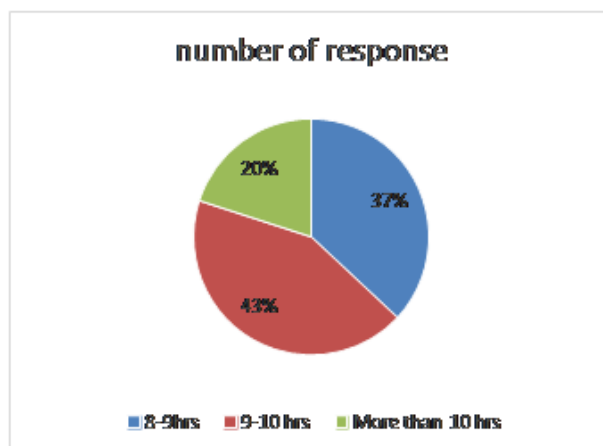
1. Professional Status :
 - a. Self – Employed
 - b. Salaried



2. Which age group you are falling in?
 - a. 25-35
 - b. 35-45
 - c. 45-55

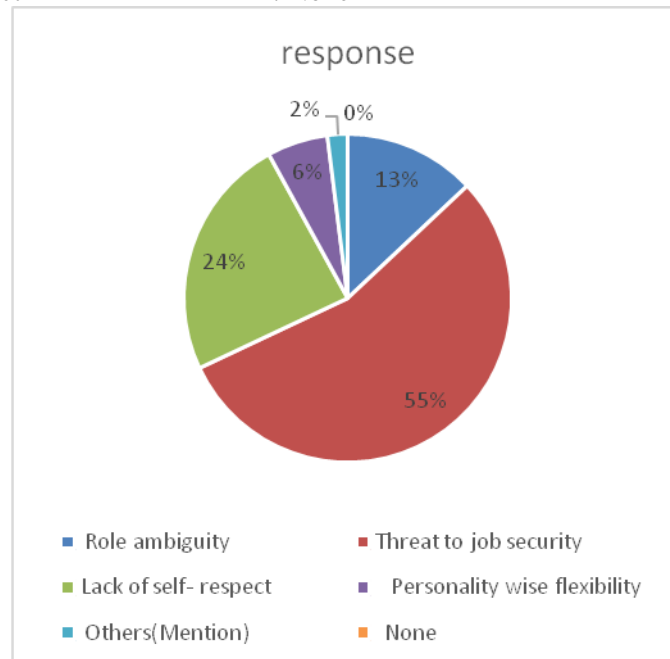


3. How much time do you give your work per day?
 - a. 8-9 hours
 - b. 9-10 hours
 - c. More than 10 hours



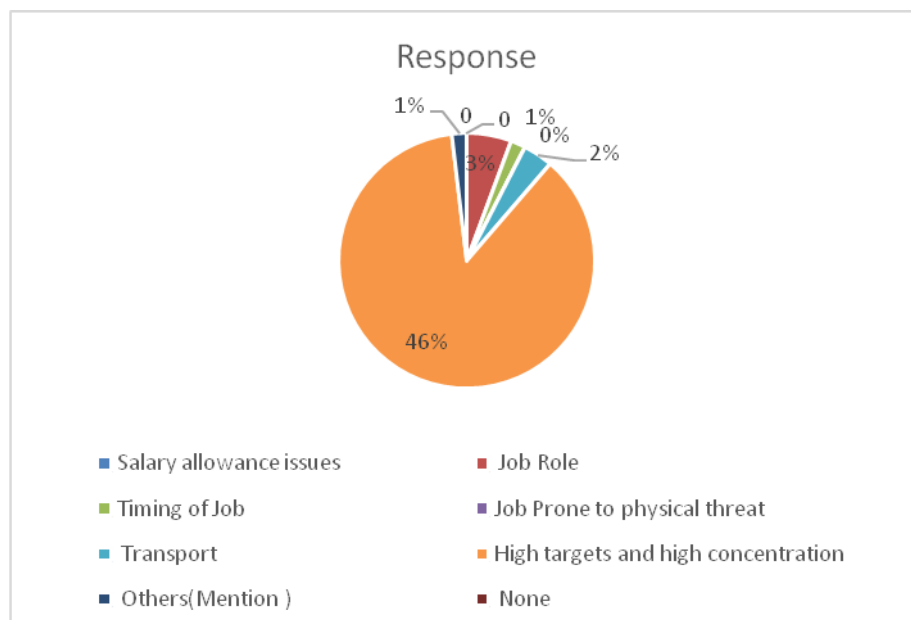
4. What type of Individual Stress do you feel at your workplace?

- | | |
|---------------------------|---------------------------------|
| a. Role ambiguity | d. personality wise Flexibility |
| b. threat to job security | e. Others |
| c. Lack of self- respect | f. None |



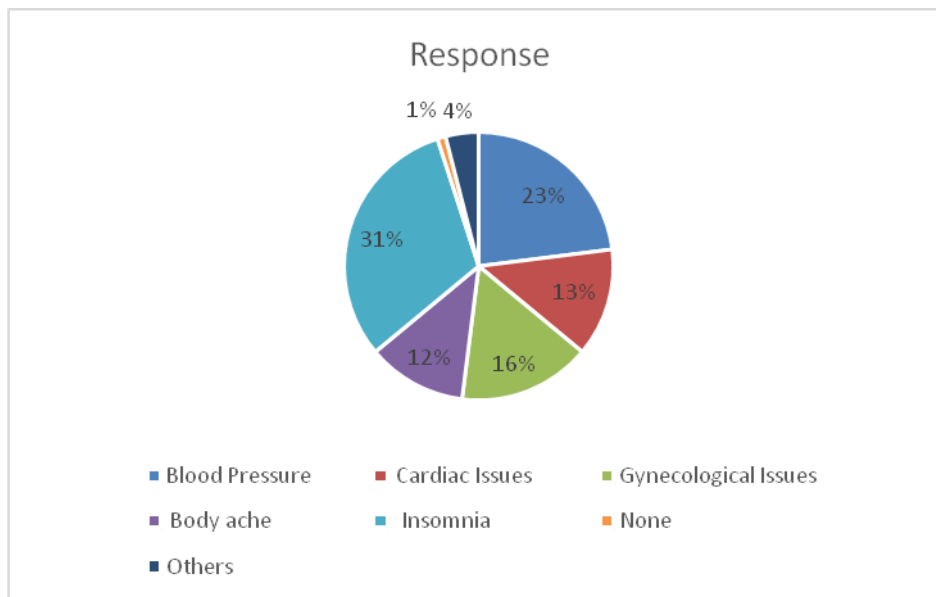
5. What Organizational stress do you feel at work place ?

- | | |
|--|---------------------------------|
| a. Salary allowance issues | e. Transport |
| b. High targets and high concentration | f. Job Prone to Physical Threat |
| c. Job Role | g. Others |
| d. Timing of Job | h. None |



6. Do you have any of the following health Issues?

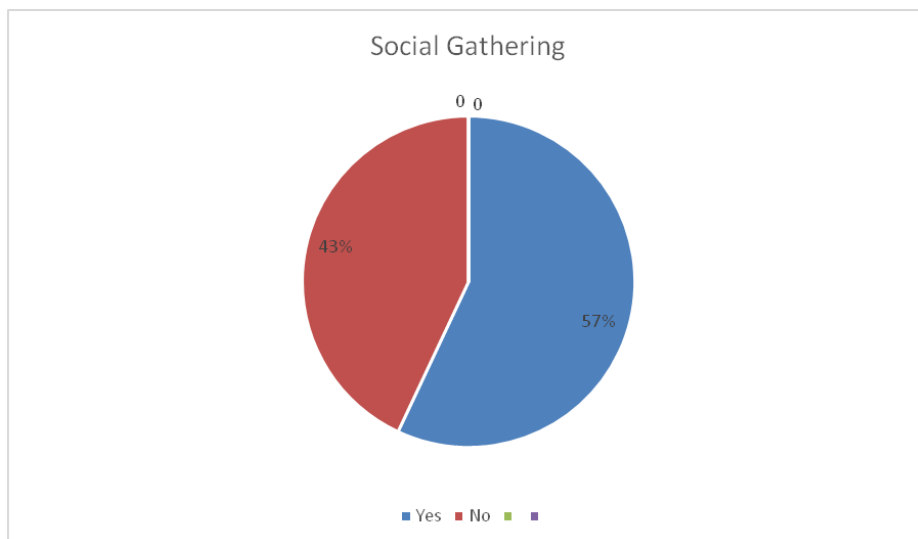
- | | |
|-------------------------|-------------|
| a. Blood Pressure | e. Insomnia |
| b. Cardiac Issues | f. Others |
| c. Gynecological Issues | g. None |
| d. Body ache | |



7. Do you have any social group in your locality?

a. Yes

b. No



8. How frequently do you meet your friends and social group?

a. Daily

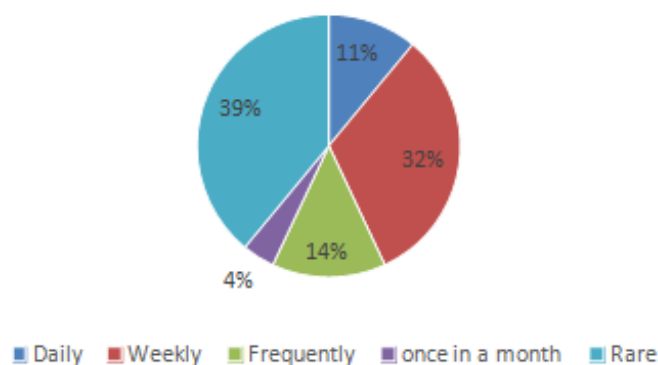
b. Weekly

c. Frequently

d. Once in a month

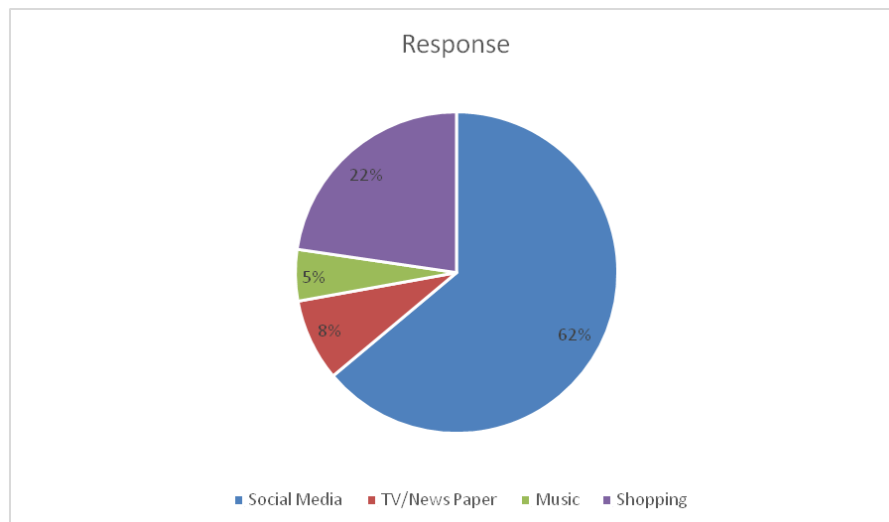
e. Very rare

Frequency of meeting social groups



9. What do you do in your free time ?

- Social Media
- TV/ News Paper
- Music
- Shopping
- Rest /Nothing



10. What do you do to release stress?

- Meditation
- Hobby
- Music
- Time Management
- Exercises
- Others
- None



F. FINDING & SUGGESTIONS

By analyzing the data collected the following findings were noted down:

- Women are facing both individual and organizational type of stress. In individual level 55 % women feel that job insecurity is the major factor to stress. This is a threat as to live a luxurious life in a metro both male and female are opting to work outside. Organizational stress covers 46% of the total respondents who feel that high job targets and job concentration are the major factor to stress. Job targets are increasing day by day to match with the supply and demand of market.
- Females have various health issues which comes as a consequences of occupational stress. Insomnia of sleepless nights covers 31 % of the females. While 23% females have Blood pressure issues. These may be due to extreme job pressure and the fear of job insecurity.

- Apart from the mentioned health hazards some females are also facing other type of health issue like depression, Diabetes, Mood swings etc.
- When asked about what they do in their leisure time, most of the responses are showing positive result for Social media sites . This means smart phones have also a very strong impact on womens' day to day life. But it may also cause health hazard due to emission of radiation.
- To release occupational stress, people are meditating, doing exercises and switching their jobs and also doing Yoga. But it is seen from the study that almost 24% people are doing nothing to release their stress. For that they may be becoming more and more prone to health related issues.
- So it is suggested that as almost all working women are facing occupational stress in organization, they should always be alert towards their health and job life. Exercises and Yoga, meditation are strongly recommended by most of the physicians to release stress which is seen in very less percentage among women.
- Absence of social group or friends also makes them very prone to stress as a healthy relation with friends and groups may also act as a stress buster.

G. CONCLUSION

After research on female workforce regarding their occupational stress we can come to a conclusion that:

- Job Security threat should not be a criteria for performance rather companies should find out the main reasons behind poor performance and should give proper training for the employees for their performance skill upliftment. A standard should be set after the training program and few number of chances should be given to the employees to crack the mentioned standard. This way the job related stress would be automatically eradicated to a larger extent.
- Women personally get no time to share for Exercises and Yoga for Stress management. Companies should come up with various Stress management techniques like Yoga day, or meditation day or they can implement few hours to exercise on weekly basis.
- One major problem was found at the time of research that most of the female employees are either doing nothing at their free time or they are more into social media. Their social relation has decreased a much extent. They should grow social groups and companies can also give scope for social gathering in offices like Team Lunch, Team Outing or Family Meet to boost social groups and in this way they can give a great hand in releasing stress.

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SERVICE QUALITY MANAGEMENT- A BANKER'S PERSPECTIVE IN ODISHA, INDIA

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ABSTRACT

Delivering superior service quality has become the prerequisite for the success of banks in 21st century. Thus service quality management (SQM) is the prime concern of banks. There are many research conducted on service quality measurement but few studies were conducted to understand Bankers' perception on service quality management. The present paper is the outcome of an empirical study conducted with the objective of investigating bankers' perspectives on quality management initiatives in the public sector banks (PSBs) of Odisha. It covers bankers' perception on service quality management of banks and Attributes of SQM in Banks. The study has been conducted through a structured questionnaire. The sample consists of 84 managerial staff from five leading PSBs of Odisha. In managers' perception, the mechanism of customer care, Role of RBI guidelines for implementing quality initiatives, and maintaining complaint register for monitoring quality performance very important for SQM where as Banks have more difficulties with employees resistance to change.

Keywords: service quality management, Bankers' Perception, PSBs.

1. INTRODUCTION

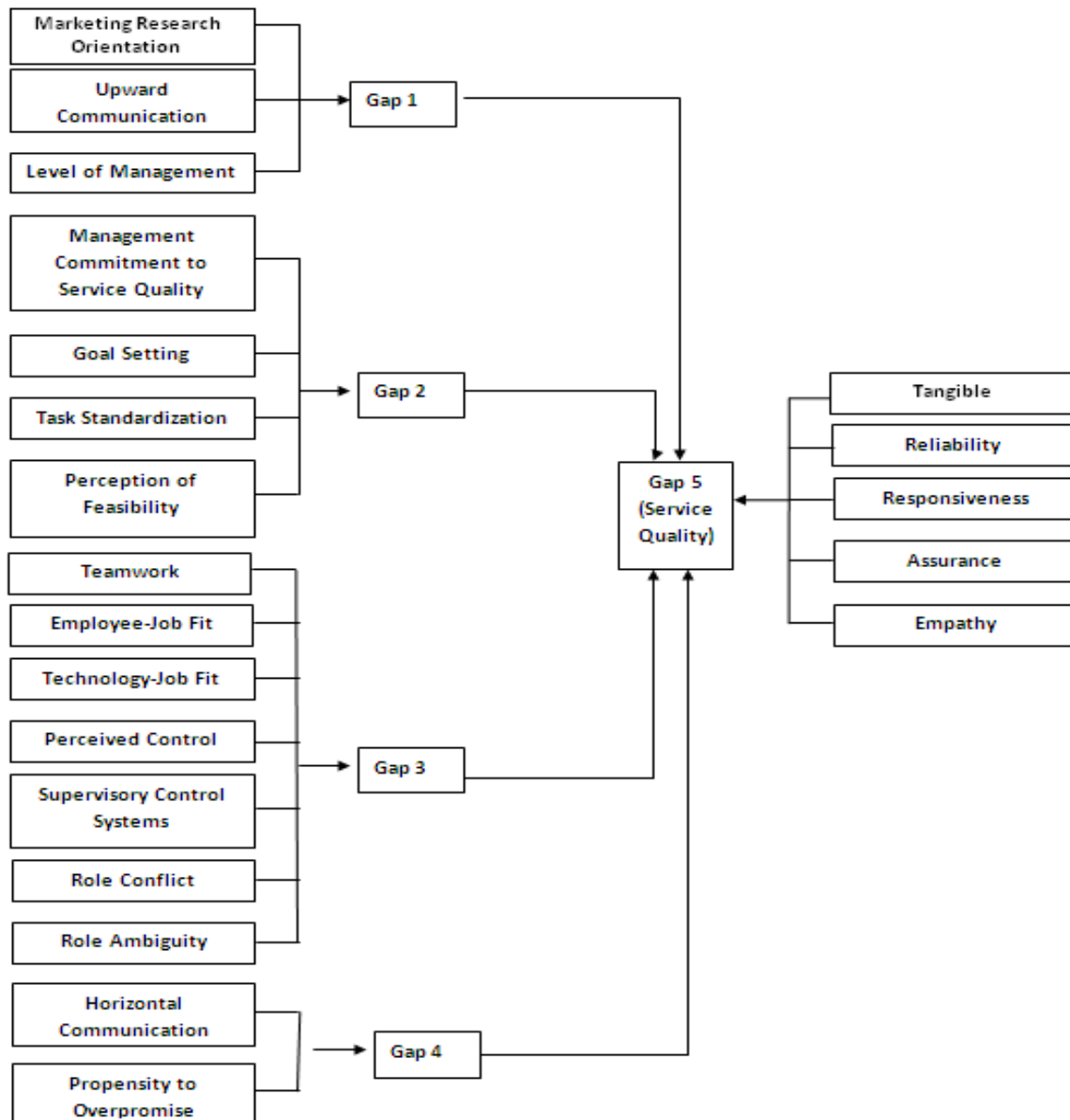
In changing climate due to liberalization, globalization, RBI's norms and Govt. policies Indian banks are struggling for profits and survival. This new face of banking industry has given birth to such a type of customers who look for the banks that best meet their expectations. Few barriers restrict switching between banks, so customers many easily change from one to another. Due to this massive change in banking industry satisfying and retaining customers by delivering superior service quality has become the prerequisite for the success of banks. Thus for every banks service quality management (SQM) is the need of hour. The goal of SQM implies customer expectations are to be understood concerning quality and a proactive plan need to be designed in order to achieve this goal. The origin of service quality objectives is revealed by the customer's needs, this is why the scientific basis of SQM has to be customer oriented. There are many research conducted on service quality measurement, concerning particular bank, comparative study of public and private banks etc. But few studies were conducted to understand Banker's perception on service quality management. The study includes five leading public sector banks (PSBs) of India those are; Bank of India(BOI), State Bank of India(SBI), United Commercial Bank(UCB), Punjab National Bank(PNB) and United Bank of India(UBI). For the purpose of this study, five leading banks are purposively selected as they have large number of branches in Odisha. The purpose is to the study the banker's perception towards the current quality management initiatives in the PSBs of Odisha; to identify obstacles for quality improvement in banks, and to suggest strategies for better SQM of banks under study on the basis of the analysis.

2. CONCEPT

According to Gronross (1982) the traditional demand analysis and quality control measurement is the first step in the quality management process. A study of demand patterns of the service at various levels of quality and market responses whenever a change in quality is attempted by concern; need to be studied in detail. Such study develops a basic understanding of desired quality by the customers. The second major source is employees' perception on desired quality and performance. Employees involved in regular interaction with customers in service production and delivery process will be in a better position to collect and interpret feedback from the customers. This group, with its knowledge of company's vision, policies, procedures, competencies and limitations and comparative knowledge of competitive offers, is an invaluable resource to the company in developing quality specifications. Management, therefore, has to conduct an internal analysis of employee perceptions relating to desired service quality by the market. After a thorough analysis of various factors, the management can finally arrive at decisions on service quality specifications. The quality specifications thus decided by the management will be communicated to employees through internal marketing efforts result in employee perception of desired service quality. The decisions of the top management also influence the willingness and the ability of the employees to perform the service. External marketing which aims at communicating with the target market develops quality expectations in them. Customers with quality expectations will interact with employees of the service firm. The employees have to understand the specific problems of customers on the spot and decide the service package to execute in consultation with customers. Besides, an employee has to ascertain his or her ability and willingness and the customer's ability and

willingness to participate in the service production and consumption process. By taking all these considerations, the employee concerned decides the service to be offered and executes it. Customers who experience service quality will evaluate quality by comparing experienced quality with expected quality and come to a conclusion on the perceived service quality.

Figure-1: Extended Model of Service Quality



Source: Parasuraman et al. (1988)

According to the extended service quality model (figure 1) of Parasuraman et al. (1988) service quality is a function of perception and expectations. This exploratory research was refined with their subsequent scale named SERVQUAL for measuring customers' perceptions of service quality collapsed in to five dimensions: reliability, responsiveness, tangibles, assurance and empathy which capture access and understanding (knowing) the customers. According to the extended model most factors involve communication and control process implemented in organization to manage employees. Since the magnitude and direction of the fifth 'gap' directly affects the service quality as perceived by the consumer, it is seen as the most significant gap. The theoretical constructs Parasuraman et al. (1988) have derived from the organizational behaviour and marketing literature are germane to an understanding of service quality shortfalls and in taking corrective action to ensure the delivery of high quality service. Figure 6.2 is an extended model of service quality, showing the various organizational constructs and their relationships to the service quality gaps.

According to the study of Budacia et al. (2010) for any banking institution to be managed and operate efficiently, its activities should be coordinated and monitored in a systematic way based on eight quality management principles, which are summarized in the following table:

Table-6.1: Principles of Quality Management in Banking Institutions

Principles of Quality Management in Banking Institutions	Details
Customer orientation	Organizations depend on their customers and therefore should understand their current and future needs, should meet customer requirements and should strive to exceed their expectations.
Leadership	Leaders establish unity of purpose and direction of the organization, and should establish and maintain the internal environment in which staff can become fully involved in achieving organizational objectives.
Personnel involvement	Staff at all levels is the essence of an organization and involvement of all abilities allows it to be used to the organization's benefit.
Procedural approach	The desired result is achieved more efficiently when activities and related resources are managed as a process.
System approach to management	Identifying, understanding and managing related processes as a system contributes to the efficiency of an organization in achieving its objectives.
Continuous improvement	Continuous improvement of overall performance of an organization should be a permanent objective.
Factual approach to decision	Efficient decisions are based on data analysis and information.
Mutually beneficial supplier relationships	An organization and its suppliers / customers are interdependent and a mutually beneficial relationship increases the ability of both to create value.

Source: Budacia et al. (2010)

Service firms should develop quality focused processes to ensure continuous quality performance as desired by customers. In order to achieve the quality objectives, an integrated and coordinated work of three participant groups is necessary. The groups that influence the service quality are:

- The management of the service organization
- The employees
- The customers

3. REVIEW OF LITERATURE

Wilkinson et al. (1996) conducted a research on quality initiatives of 96 financial service companies in the UK in 1994. They conducted a survey among executives in general management, marketing, quality and personnel functions of the sample companies to their perceptions regarding quality initiatives of companies under study. They found that an emerging and complex trend of quality initiatives was appearing in the industry and the content and success of those initiatives were mixed. Among various quality initiatives, most successful were business process re-engineering (BPR), customer care and total quality management (TQM). According to the perception of majority of the respondents their quality initiatives were either 'very successful' (12%) or 'reasonably successful' (60%).

Knights and McCabe (1996) conducted a research to study the gap between management actions and quality initiatives of some banks and insurance companies during 1993-96. During the study they observed management do not provide adequate time staff for offering better customer service. They also inconsistencies between management actions and service quality initiatives. Thus management should focus on those inconsistencies for effective implementation of the quality initiatives.

Athanassopoulos (1997) conducted a survey on perception of bank management and customers regarding their service quality of Greece banks. They found that there was a gap between the perception of customers and service providers of banks regarding the bank service quality. Bank managers were under the impression that the service quality they were providing was much better than what the customers perceived. Furthermore they found that Private banks were providing better services to business customers than to individuals while public banks providing same levels of service quality to both customer groups.

Li et al. (2001) conducted a survey on quality management initiatives in Hong Kong's banking industry between 1997 and 2000. The purpose of the study was to investigate the current quality management initiatives in Hong Kong (HK) banking industry and compare quality initiatives of HK companies with those of financial institutions in the UK reported in 1994. 59 out of 156 licensed banks in Hong Kong responded to the survey.

Based on the responses from the survey, extent and nature of quality initiatives were analyzed. They found that while UK institutions focus more on meeting customer needs and wants, HK banks tend to devote more effort to meeting service standards and providing prompt services. In terms of difficulties while HK banks have more difficulties with employee resistance to change, UK institutions reported more difficulties with measuring quality. The result shows that customer-centric, process-oriented management approach was the essence of the TQM concept. Quality management programs require long-term commitment and total involvement. Therefore, they recommended that both HK and UK banks should continue their quality awareness training and quality management workshops.

Montes et al. (2003) conducted a survey on quality management in banking services. The aim of the study was to determine the working environment that bank employees perceive is related to their affective responses and their perception about the banks' service quality. The research has performed over 80 bank branches through a mailed questionnaire method. Five sections of questions based on perceptions of the employee, assessment of the service orientation of the Branch, obstacle service quality available to the customers, work motivation, job satisfaction and commitment were included to assess employee's perceptions and attitude. All the statements were measured using a scale developed by Hrebiniak & Alutto (1972). Customer perception about service quality was also measured by using a scale proposed Teas (1993). They found that customer satisfaction relate to employees and customer's subsequent behaviour. Furthermore customers' perception, attitude and intentions are largely affected by employees experience and attitudes resulting from there service to customers. The study suggests that service organization should be concerned about the climate in which employee behaviour also influence on assessment of service quality of the banks.

4. OBJECTIVES OF THE STUDY

- ✚ To study the banker's perception towards service quality management of banks ;
- ✚ To study the banker's perception towards attributes of service quality management in banks; and
- ✚ To suggest strategies for better service quality management of banks under study.

5. RESEARCH METHODOLOGY

The final questionnaire consists of three sections. Section 1 questions are for understanding demographic backgrounds of the sample respondents. Section 2 consists of thirteen questions were adopted from persuraman et al. (1988). The last section i.e.-section 3 consists of 11 questions were adopted from Li et al. (2001) 10 were concerning the attributes of SQM in banks. Structured questionnaire has been used for collection of data comprising close-ended questions. Section 2 questions are measured on 5-point likert scale where "1 = very poor, 2 = poor, 3 = slightly poor, 4 = average, 5 = slightly good, 6 = good, and 7 = very good" and Section 3 questions are measured on 5-point likert scale where "1= not at all important, 2 = slightly important, 3 = neutral, 4 = moderately important, 5 = very important". The study includes five leading PSBs of India those are; BOI, SBI, UBI, PNB and UBI. For the purpose of this study, five leading banks are purposively selected as they have large number of branches in Odisha. The sample size for the study was 100 managerial staff. With lot of persuasion and follow up only 84 filled in the questionnaires were received and considered for the present study. In order to accomplish the objectives the data are processed through SPSS (statistical package for social sciences) and analysis was made by drawing cross-tables, calculating percentage, and by applying ANOVA test were used to analyse the data.

6. DATA ANALYSIS

It is observed from the Table 1 that out of 84 managers, 63 are male and 21 are female. According to the data managers belong to the category of above 50 years constitute the majority of sample (51.19%). The proportion of middle age managers (40-50yrs) is the lowest (8.33%) in the sample. In terms of marital status married managers are 70.24% whereas single managers are 29.76% in the sample. In terms of education, managers having general degree constitute the majority of sample (71.43%) while 28.57% are having professional degree. According to the data out of the total sample, 27.38% managers are from BOI, 22.62% managers are from SBI, 16.67% are managers from UCO, (11.9%) from PNB and 21.43% managers are from UBI.

Table-1: Profile of Managerial staff

Parameters		Frequency	Percentage
Gender	Male	63	75
	Female	21	25
Age	Below 30 Yrs	22	26.19
	30 – 40 Yrs	12	14.29
	40 – 50 Yrs	7	8.33
	Above 50 Yrs	43	51.19

Marital Status	Married	59	70.24
	Single	25	29.76
Education	Professional	24	28.57
	General	60	71.43
Bank	BOI	23	27.38
	SBI	19	22.62
	UCO	14	16.67
	PNB	10	11.90
	UBI	18	21.43
Branch	Urban	25	29.76
	Semi-Urban	39	46.43
	Rural	20	23.81
Total		84	100

Source: Primary Data

Table 2 shows perception of bank managers about the SQM of the bank. In this Table, ranking of 13 statements of SQM have been done on the basis of managers' perception measured in a 7-point Likert scale. Managers' perception is an important indicator in managing the service quality in a bank. The dimension 'Employees cooperation with each other in the organization' occupies the 1st rank with mean of 5.38 and SD 1.19 in service quality management, which is followed by the dimension 'Employees personal involvement and commitment' (Mean = 5.08 and SD =1.17). This indicates the manager's personal involvement and cooperation among them is very much needed to complete the tasks as they are personally responsible for them. Bank managers also perceive similarity of procedures across departments and branches great influence service quality with a mean of 4.32 and SD of 2.01; occupies third rank in service quality management. Feedback to employees also plays a great role in service quality management. Feedback must be objective and constructive in nature. 'Constructive Feedback given to employees' occupied the fourth rank as perceived by the managers with a mean of 4.42 and SD of 2.29. Here, higher standard deviations indicate greater disagreement in opinions of the managers. Similarly there is a greater need to for communications between sales and operations people so that the quality of service offered by the bank shall be of a superior quality. The Table 2 reveals that 'communication between sales and operations people' has fifth rank with mean of 4.32. Accordingly, 'frequency and quality of downward communication with employees', 'upper level managers' concern for the employees', 'training imparted to the employees on product available in the bank' and 'training in communication skill for employees', occupy sixth, seventh, eighth, and ninth rank respectively based on their perception of service quality management. Input by operations people in advertising plan holds the last rank in the order as managers perceive it least important for service quality management. Out of thirteen dimensions in seven dimensions, the perception of bank managers on quality management is slightly poor (as mean is below 4 and SD is relatively low), only in two dimensions the perception is good as the mean is above 5. This indicates that the banks under study have not sufficiently focused on the management of service quality. The dimensions like training, product knowledge and communication should be given more importance for better SQM in the banks.

Table-2: Bank managers' Perceptions on service quality management

Sl.No.	Statement	Mean	SD	Rank
1	Upper level managers' concern for the employees	3.94	1.65	7
2	Employees' cooperation with each others in the organization	5.38	1.19	1
3	Employees' personal involvement and commitment	5.08	1.17	2
4	Frequency and quality of downward communication with employees	4.11	1.64	6
5	Constructive feedback given to employees	4.42	2.19	4
6	Product knowledge of employees	3.58	1.73	11
7	Product -specific training for employees	3.79	1.94	8
8	Training in communication skill for employees	3.65	1.68	9
9	Input by operations people in advertising plan	3.50	1.29	13
10	Input by operations people in advertising execution	3.65	1.08	10
11	Employees' awareness of external communications to customers before they occur	3.57	1.50	12
12	Communication between sales and operations people	4.32	1.46	5
13	Similarity of procedures across departments and branches	4.65	2.01	3

Source: Primary Data

Table 3 shows the ranking of twenty one attributes of SQM done on the basis of managers' perception measured in 5-point Likert scale. Managers' perception is an important indicator in managing the service quality in a bank. In managers' point of view, "the mechanism of customer care for quality management" is very important for SQM as it occupies the first rank among twenty one attributes with mean value of 5 and SD zero. The lowest value of SD explains similarity of the perception of the respondents. The attributes, "role of RBI guidelines for implementing quality initiatives", "quality initiatives to improve the quality of service" and "maintaining complaint register for monitoring quality performance" are very important for SQM in banks as occupy second, third and fourth rank respectively and SD (0.28, 0.28 and 0.35 respectively) explaining similarity of perceptions among managers. Some of the respondents believe that employees should be responsible for quality improvement. Whereas many of the managers also consider that the responsibility of quality improvements relies upon the organization/Head office. Thus the attributes, "role of organization in constant quality delivery", "distribution of responsibilities by Head office for quality initiatives" and "perceived usefulness of initiatives for improvement of service quality" occupy fifth, sixth and seventh ranks according to managers' perception. The table 3 indicates that quality improvement is likely to start from the Head office/top level management while the success of implementation requires all employees' involvement and support. "Customer satisfaction survey for monitoring quality performance" and "customer orientation of employees" is also very important attributes for SQMas occupy ninth and tenth rank with mean of 4.76 and 4.68 respectively. The Table 3 indicates that bank managers seem to care consistently about "Competitive pressure as a factor to improve service quality" as it occupies the eleventh rank (SD= 0.74). Corporate culture change program has lost much popularity in banks in recent years. This may be due to the difficulties in introducing new culture without upsetting the traditional cultures because of barriers between department and employee resistance to change. Thus 'changing culture for quality management' holds the last rank in the order as per managers perception for SQM in banks.

Table-3: Perception of Bank Managers on Attributes of Service Quality Management

Sl. No.	Attributes of Service Quality Management in Banks	Mean	SD	Rank
1	Customer orientation of employees	4.68	0.68	10
2	Personal involvement in taking decisions	4.37	0.86	15
3	Continuous improvement in service quality	4.38	0.62	14
4	Factual approach to decision	4.38	0.58	13
5	Mutually beneficial relationships	3.79	0.62	18
6	Similar quality in all the banks' activities	3.30	1.40	20
7	Role of organization in constant quality delivery	4.89	0.31	5
8	Continuous communication with the clients	4.42	1.21	12
9	Perceived usefulness of initiatives for improvement of service quality	4.77	0.42	7
10	The mechanism of customer care for quality management	5.00	0.00	1
11	Changing culture for quality management	3.24	0.65	21
12	Increase market share as a strategy for quality improvement	4.76	0.55	8
13	Boosting Employee morale in the quality programs	3.81	0.86	17
14	Speed and Accuracy of service delivery	4.19	1.12	16
15	Distribution of responsibilities by Head office for quality initiatives	4.79	0.78	6
16	Quality initiatives to improve the quality of service	4.92	0.28	3
17	Maintaining complaint register for monitoring quality performance	4.92	0.35	4
18	Customer satisfaction survey for monitoring quality performance	4.76	0.95	9
19	Role of RBI guidelines for implementing quality initiatives	4.92	0.28	2
20	Customer demand for quality initiatives	3.74	1.00	19
21	Competitive pressure as a factor to improve service quality	4.62	0.74	11

Source: Primary Data

Table 4 depicts whether the difference between the opinions of bank managers with regard to the twenty one attributes of SQM in bank is significant or not. Age-wise the opinions of bank managers vary significantly only in two attributes at 5% level of significance i.e. in, "personal involvement in taking decisions" and "speed and accuracy of service delivery". But for rest other attributes there is no significant difference between the opinions of managers of different age groups. Education-wise also the opinions of bank managers vary significantly only in two attributes at 5% level of significance out of twenty one attributes, i.e. in "similar quality in all the banks' activities" and "maintaining complaint register for monitoring quality performance". But in rest other attributes there is no significant difference between the opinions of managers having different educational backgrounds.

It is observed from the Table 4 Bank wise the difference between the opinions of managers for eighteen attributes out of twenty one is significant at 1% level. In “factual approach to decision” the difference between opinions of managers is significant at 5% level and in rest two parameters, i.e. in “the mechanism of customer care for quality management” and “Maintaining complaint register for monitor quality performance” the opinions of managers do not vary significantly. It implies that managers of different PSBs under study have different opinions regarding the attributes of SQM in banks.

Table-4: ANOVA of Service Quality Management across Demographic Profile of Managers

Sl. No:	Attributes of Service Quality Management in Banks	By age of managers		By education of managers		By managers of different public sector banks	
		F	Sig.	F	Sig.	F	Sig.
1	Customer orientation of employees	1.754	0.18	1.759	0.188	42.047**	.000
2	Personal involvement in taking decisions	4.468*	0.014	0.358	0.551	18.309**	.000
3	Continuous improvement in service quality	0.879	0.419	1.246	0.268	4.540**	.002
4	Factual approach to decision	0.604	0.549	0.127	0.723	3.097*	.020
5	Mutually beneficial relationships	2.715	0.072	0.003	0.956	33.553**	.000
6	Similar quality in all the banks' activities	0.655	0.522	4.611*	0.035	35.198**	.000
7	Role of organization in constant quality delivery	1.008	0.369	1.233	0.27	13.754**	.000
8	Continuous communication with the clients	0.235	0.791	0.157	0.693	14.918**	.000
9	Perceived usefulness of initiatives for improvement of service quality	0.381	0.684	0.811	0.37	8.200**	.000
10	The mechanism of customer care adopted for quality management	0.432	0.735	0.672	0.488	1.123	.214
11	Changing culture for quality management	0.581	0.562	0.401	0.528	11.033**	.000
12	Increase in market share as a strategy for quality improvement	0.688	0.506	1.002	0.32	4.686**	.002
13	Boosting employee morale in the quality programs	0.733	0.483	0.933	0.337	14.659**	.000
14	Speed and accuracy of service delivery	4.019*	0.022	0.015	0.903	21.308**	.000
15	Distribution of responsibilities by head office for quality initiatives	0.587	0.558	1.444	0.233	7.054**	.000
16	Quality initiatives to improve the quality of service.	1.389	0.255	0.752	0.388	40.597**	.000
17	Maintaining complaint register for monitor quality performance	0.96	0.387	4.352*	0.04	1.544	.198
18	Customer satisfaction survey for monitor quality performance	0.27	0.764	0.334	0.565	3.984**	.005
19	Role of RBI guidelines for implementing quality initiatives	1.389	0.255	0.752	0.388	40.597**	.000
20	Customer demand for quality initiatives	0.7	0.499	0.005	0.945	5.110**	.001
21	Competitive pressure as a factor to improve service quality	1.939	0.15	0.362	0.549	200.635**	.000

Source: Primary Data Note: **significant at .01 level, * significant at .05 level

7. FINDINGS

In managers' point of view; the mechanism of customer care, role of RBI guidelines for implementing quality initiatives, and maintaining complaint register for monitoring quality performance as attributes of SQM in banks are very important.

Banks have more difficulties with employee's resistance to change.

8. SUGGESTIONS

In the light of the research findings, the following strategies are for better SQM of PSBs of Odisha.

Banks should give training on; customer care, product knowledge, communication skills to the employees for the improvement of service quality.

Management should keep informed the employees regarding external communications (i.e-advertising through different media) to customers before they occur.

Banks should frequently organize quality awareness programs both for managerial and non-managerial staff.

9. CONCLUSION

In 21st century's competitive scenario prime concern of banks are to obtain customers satisfactions through SQM. Managers have to identify the causes that can prevent the activity development in conditions of quality improvement. The main errors that have to be avoided by the companies in the domain of services are the following: not identifying or wrongly identifying the consumers' needs, errors in the formulation of quality standards. The starting point in perceiving the service quality is the way in which the service accomplishes the service in accordance with the client's expectations. Quality cannot be a goal in itself; it has to be based on the clients' desires and necessities.

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CASH AND CASHLESS ECONOMY CHALLENGES AND OPPORTUNITIES: A MOVE TOWARDS DIGITAL TRANSACTIONS

Archi Mathew Colaco

ABSTRACT

In this era, we can see a very significant level of change in the means of making and receiving payments. Due to constant level of technological infrastructure and policy changes, there has been an increase in the number of modes of payments. Cashless economy is the future of Indian economy where there will be no physical flow of cash. All the payments will be made and received in the virtual world. Cashless economy got popular after demonetization where plastic money was widely used. The study is aimed towards studying the level of awareness among the citizens about cashless economy. The study also helps in determining the factors which influence the people to switch from cash towards cashless payments and what are the benefits people avail by using other means of payments. Data is collected from students, working professionals and business class people. The questionnaire asks questions about the benefits people avail while using digital payment methods and what are the various factors which influence the people to use digital payment methods and what are the risks they face associated with digital payments. After the research conducted we can say that the working professionals and business class people use digital payment methods more. There are various factors which influence the people to shift such as offers, cashback etc. There is still a long run for India to be cashless to full extent as the government needs to develop a smooth and secure infrastructure. Index terms: Cashless economy, technological development, demonetization, digital payment methods.

INTRODUCTION

The meaning of a cashless economy does not mean economy without cash, but it means where the economy functioning and transactions are carried through electronic means of payments and receipt. The concept of adopting cashless economy also account the right direction towards growth and development of country economy thus by ensuring in reduction of cash related corruption and attracting more foreign investors to the country. Digital transactions are traceable thereby surety in taxable income for Government, reducing the circulation of black money. The whole country is undergoing the process of modernization in money transactions. Large businesses to street vendors are now accepting electronic payments. India as a transforming economy in the universe step towards cashless will be the milestone. This study is an attempt to analyze the operational result of Cashless Economy concept in Indian scenario so far.

Cashless economy is an economy where maximum transactions are done without using the physical cash but through digital means like credit cards, debit cards, e-wallets and electronic fund transfer (ECS, NEFT, RTGS, USSD, UPI, Aadhar based payment system etc.). India uses too much cash for transactions. The ratio of cash to gross domestic product is one of the highest in the world.

India faces many challenges in setting up a cashless economy like lack of digital and banking infrastructure, cyber security and financial literacy, high cash dependency etc. Finance Minister, in 2016 budget speech, talked about the idea of making India a cashless society. The major benefits of cashless economy in India are reduced tax avoidance and money laundering, reduced costs of printing money etc. Secondary data has been used for study, which is collected from different newspapers, websites, journals etc.

A cashless economy or an e-payment system is a situation where there is little or very low cash flow in a given society, meaning thereby, transactions will be made by electronic channels like debit cards, electronic funds transfer, mobile payments, multifunctional ATMs, and internet banking. It is the economy that run mostly on plastic or digital money and thus with minimal cash or money in paper form.

CASHLESS economy is an economy, which performs all its transactions using plastic money or through the digital means.

The recent step of demonetization of government aimed at fourfold attack on counterfeit currency, currency used for terrorist financing, accumulated black money and corruption. In addition, RBI recently unveiled its document on "Payments and settlement systems in India: vision 2018" aimed at making India a cashless economy.

Not only this, our eminent prime minister is working tremendously towards his move of digitization (Digital India). Thus, both of these moves demonetization and digitization if worked upon effectively can act as a catalyst in making India a cashless economy.

Many challenges in this transition can be identified as handling currency denominated economy, limited availability of point of sale terminals, weak mobile internet penetration in rural India, capital e-illiteracy and sluggish economy. The Digital India program started by the government of India is a flagship program visioning Indian transformation into a digital economy. "Faceless, paperless, cashless" is the main role of Digital India. Thus to strengthen the program, the government of India went on for financial inclusion linking the bank accounts of people with their salaries and opening of bank accounts linked with aadhar accounts under Jan Dhan scheme. In addition, the step of demonetization equally attributes towards making India move forward on the path of becoming cashless.

REVIEW OF LITERATURE

Jain, P.M (2006) in their article "E-payments and e-banking—An Analysis of Growth Pattern of Cashless Transaction System". Taking fullest advantage of technology, quick payments and remittances will ensure optimal use of available funds for banks, financial institutions. He also pointed out the need for e-payments and modes of e-payments.

P Manivannan (2013) in his research paper "Plastic Money a way for cash Less Payment System" examined that Plastic Money i.e. usage of Credit card was measured a luxury, and has become needed.

Mr. Pradeep H. Tawade (2017), "Future and scope of cashless economy in India." This paper helps in assessing the future trends and the impact of going cashless in the Indian economic scenario. After the study was conducted it was seen that the Government of India should consider many more steps in digitalizing India. And payment methods should be made more secure and risk-free.

Dhanda and Arora (2017), Genesis of cashless society: A study on growing acceptability towards plastic money. This paper is aimed towards studying the factors responsible for the rapid increase in acceptability of plastic card in the recent years. After the study was conducted it was seen that use of plastic cards is a matter of great pride among teenagers and is considered safe and free from any frauds.

Dr. Rashmi Gujrati (2017), India's march towards faceless, paperless, cashless economy. The paper is aimed towards creating a sense of awareness about cashless economy, its benefits, challenges and the steps taken by government toward cashless economy. After the research conducted it was seen that cashless economy comes with various benefits but brings in a lot more challenges with it.

Dr. Asha Sharma (2017), Potential for cashless economy in India. The study was conducted to find the scope of India becoming a cashless economy, challenges and opportunities related to cashless economy. The study shows that there is a significant scope of Cashless India as we can abolish various problems we face today but we must be prepared for the challenges and problems which cashless economy will bring.

Dominic, Saranya, and Rajani (2018), A study on transformation in behaviour of individual towards cashless economy. The study is aimed towards studying the behavioural changes in individual towards cashless economy. After the study conducted it was seen that many individuals have already moved or are moving towards a cashless nation but there is still a long way for India to become cashless.

Thomas and Krishnamurthy (2017), Cashless rural economy- a dream or reality. The study is focussed towards understanding the impact of demonetisation on rural India and to keep a check on the government initiatives to make rural market a cashless economy. The studies show that the government of India should initiate various schemes to make the dream of cashless economy a reality.

Shrikala K.K. (2017), Cashless Transaction: Opportunities and Challenges with special reference to Kodagu district of Karnataka. The paper is aimed to find the opportunities available in the rural part of India and the challenges which may be faced while moving towards a cashless economy. It was seen that there are many opportunities and every opportunity come with its own challenges, but they can be avoided with proper implementation.

RESEARCH METHODOLOGY

This study reviews literature chosen with the primary as well as secondary data.

A. Research Design

The research is analytical and descriptive in nature. The researcher for the purpose here had made use of primary data and secondary data. The researcher has made use of close ended questionnaire where sample of 280 was used. The data was collected and was analysed by using SPSS Software. Secondary sources were also used with respect to Review of Literature, Journals and articles. Descriptive Statistics was done by using Mean, Standard Deviation, Frequency and inferential statistics was used like correlation, regression and ANOVA.

B. Sources of Data

The data required for doing the research has been collected mainly by using primary and secondary sources. The primary sources include the questionnaire. The secondary source includes the various journals, research paper and internet websites.

HYPOTHESIS-1

H0: There is significant difference between level of consumer trust and confidence in their cashless transactions.

H1: There is no significant difference between level of consumer trust and confidence in their cashless transactions.

HYPOTHESIS-2

H0: There is no significant relationship between gender and benefits of cashless economy to public.

H2: There is a significant relationship between gender and benefits of cashless economy to public.

HYPOTHESIS-3

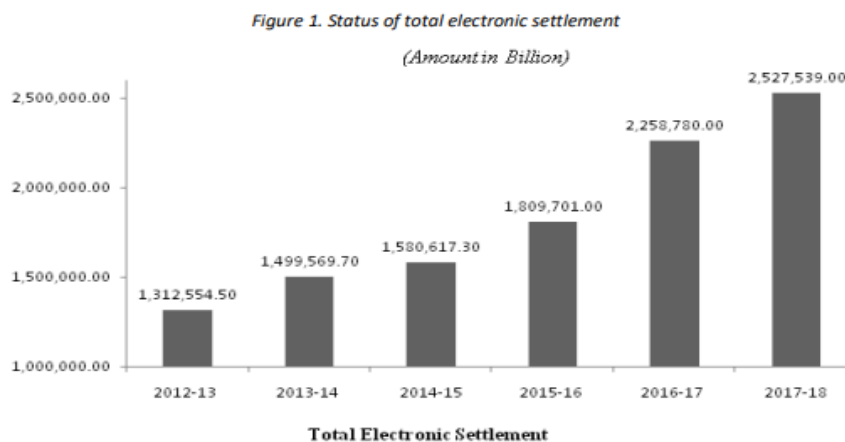
H0: There is no significant relationship between gender and the level of optimism towards cashless transactions.

H3: There is a significant relationship between gender and the level of optimism towards cashless transactions.

ANALYSIS AND INTERPRETATION

Total electronic settlement

Figure 1 explains the Total Electronic Settlement of India for the periods of 2012-2018 and shows an increased result in electronic payments and receipts. Recently in 2017-18, total turnovers crossed 25 Billion rupees (25, 27,539.00) very quickly; actually it was only 13, 12,554.50 Billion in 2012-13. It is clear that after 2015 there is an extra jump in the total electronic settlement compared to prior session of cashless economy. It indicates that India improving in their electronic settlement status in every year.



Total paper clearing

Table 1 shows a decrease in the total paper clearings in electronic payments which means, clearing of paper based transactions/ paper mode financial settlement (usually cheque) has been decreased. In 2012-13 the paper clearing almost more than one lakh billion (1, 00,182) were reduced to 81,893 Billion rupees in 2017-18 financial year. A major falls can be identified by total paper clearing status of 1, 00,182 Billion rupees to 81,893 Billion Rupees. The decreased operation in paper clearing denote that all the monetary transactions are transforming from paper to paper less which means electronic mode of operations were demanded than paper tools of payments and receipts.

Table 1. Total paper clearing

Year	Amount (in Billion)
2012-13	1,00,182
2013-14	93,316
2014-15	85,439
2015-16	81,861
2016-17	80,958
2017-18	81,893

Source: Compiled from the various reports of RBI

Total retail payments

Figure 2 emphasizes the electronic transactions in Retail Sector of India. Rupees 2, 85,612 Billion were transacted in 2017-18 which were only rupees 1, 34,115 Billion in 2012-13. The amount has been doubled with in last two consecutive years. The figure shows continues and massive usage of electronic payment facilities in retail sectors. There is a higher improvement in electronic settlements in retail sector after 2016 than before. It indicates those cashless payment methods in retail payments are getting popularized and opted.

Figure 2. Total retail payments

(Amount in Billion)



National Electronic Funds Transfer (NEFT)

Table 2 represents the individual status of one of the electronic payment method National Electronic Funds Transfer (NEFT). It has been resulted that there is continues improvements in the usage of NEFT during these 2012-18 and in 2017-18 financial year the total value of Rupees 1,72,229.00 Billion were settled in this individual system of electronic payment. Notably in 2012-13 it was only rupees of 29,022.40 Billion. A consecutive improvement had achieved through this mode of operation. The data shows a clear cut improvement in and after the financial year of 2015-16 on National Electronic Funds Transfer.

Table 2. National Electronic Funds Transfer (NEFT)

Year	Amount (in Billion)
2012-13	29,022.40
2013-14	43,785.50
2014-15	59,803.80
2015-16	83,273.00
2016-17	1,20,040.00
2017-18	1,72,229.00

Source: Compiled from the various reports of RBI

Immediate Payment Service (IMPS)

Figure 3 represents one of the another utility of electronic settlement that is Immediate Payment Service (IMPS) which is 24X7 interbank electronic fund transfer service through mobile phones method of electronic payment, which shows that facility had much preferred by the customers or users in e-transactions and it reflected in the total value of operation. In 2012-13 the total value of operation of IMPS was only rupees 4.3 Billion and after the end of fifth year it becomes rupees 8,925 Billion in 2018. Figure clearly shows the improvement of IMPS electronic facility after the 2015 i.e. after the launching of cashless economy concept in India.

Figure 3. Immediate Payment Service (IMPS)

(Amount in Billion)



Status of Unified Payment Interface (UPI)

Unified Payment Interface (UPI) is electronic settlement utility platform through mobile application which were recently introduced and within short span of period it reached the position of one of the major utility electronic fund settlement facilities (Table 3). The utility started since 2016-17 and 69 Billion Rupees were transacted in the starting year. Within a year, the UPI facility crossed Rupees 1000 (1,098) Billion of operation. The improvements and acceptance by the people of this utility can easily be identified.

Table 3. Status of Unified Payment Interface UPI

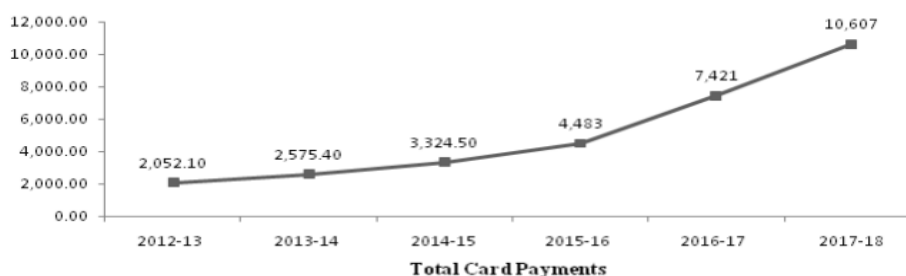
Year	Amount (in Billion)
2012-13	***
2013-14	***
2014-15	***
2015-16	***
2016-17	69
2017-18	1,098

Source: Compiled from the various reports of RBI

Status of total card payments

Figure 4 reveals the aggregate usage of electronic cards for financial transaction. A regular increase in the card payments were reported in each year since 2012. The total card payments were only Rupees 2,052.10 Billion in 2012-13. An increased usage of different cards, the total financial operations through cards were reached Rupees 10,607 Billion in 2018. From the Data Figure, it is clear that the cards based settlements were majorly popularized and used after the period of 2015-16 and highlights the difference in improved usage of card based settlements prior and after 2015.

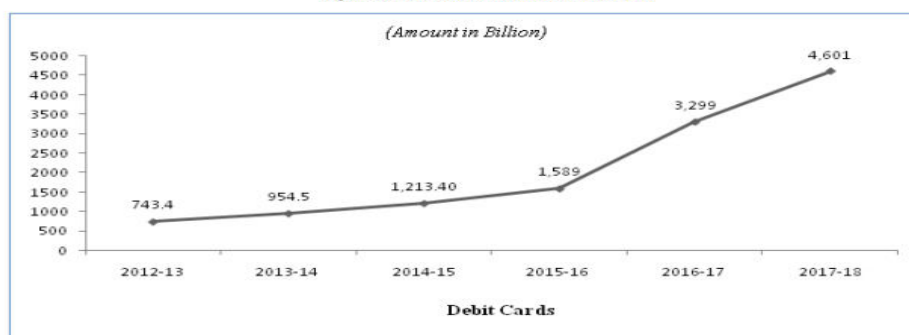
Figure 4. Total card payments
(Amount in Billion)



Total debit card based transactions

Debit card based electronic settlements are one of the common payment utility used by common people regularly. Figure 5 represents the debit card contributions in electronic settlement. In 2012-13 rupees 743.4 Billion Rupees were transacted through debit card and the same utility reported that Rupees 4,601 Billion in 2017-18 through the same. It can state that people become more familiar with debit card operations. Figure 5 shows the operational improvements of Debit card based electronic settlements and it highlights positive improved results from the 2015-16 financial years. A strong change has shown in the figure during 2015-16. The total amount through debit card settlement reached Rupees 1,589 Billion rupees in 2015-16 and it doubled during 2016-17 as 3,299 Billion rupees. The improvements of Debit card utility contribute to the success of Cashless economy concept of India.

Figure 5. Total debit card based transactions
(Amount in Billion)



CONCLUSION

The need to move towards a cashless economy in India is immense. One, it will save a huge amount of money that is spent annually on printing and maintain currency. Most importantly it will help the Government achieve its objective of inclusive growth (through financial inclusion) and make public utilities more efficient. Currently, less than 1% of all consumption expenditure is incurred through cashless instruments. However, to move towards a cashless economy, the important role of network effect and creation of a critical mass cannot be ignored. Therefore, at least in the initial stages, steps have to be taken to help build the critical network size. The current draft indicates some of those steps.

We can conclude that there is a long way for India to become a cashless economy. People still lack trust and confidence while using digital payment methods. A lot of development in the field of infrastructure is required to make the dream of Digital India a reality. There are many people who are still not aware about the cashless economy not only in India but outside of India. Government has faced a lot of criticism in the past from the public for the various plans implemented on the public. There are a lot of challenges in fulfilling the dream of digital India but in the long run cashless economy will help in growth and will bring a lot of benefits and opportunities with it.

The study concluded after the analysis of different e-payment settlements that the “Cashless Economy” concept in Indian scenario has been a success. Various positive results of those e payments utilities show the acceptance of cashless economy concept by the citizens of India as well as advantages of cashless policy will have a contribution in the economic development of the nation.

Few of the major finding according to this study are:

- There are still a lot of people who do not use any kind of digital payment method.
- There is a lot of scope in the future for cashless society.
- People are mostly influenced by convenience and offers provided for switching to cashless modes of payments.
- People don't feel safe sharing their financial and personal information over the internet.
- People face various problems while using digital payment methods.

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A STUDY ON DIGITAL PAYMENTS IN INDIA WITH PERSPECTIVE OF CUSTOMER'S ADOPTION

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ABSTRACT

The demonetization brought about huge development in digital payment. With the administration activity, for example, Digital India and expanded utilization of portable and web are intends to exponential development being used of digital payment. This change towards digital payment benefits in more straightforwardness in exchanges which engages the nation's economy. As of late numerous progressions occurred in the installment framework like digital wallets, UPI and BHIM applications for smooth move to digital payment. The paper talks about the services that the customers prefer from the payment banks. It also captures how convenience/ease is helping payment banks to expand customer base. The role of demographics as deciding factors for customers in choosing payment banks is studied in this paper. The paper further studies the effect of reference groups on the customer's decision to choose a bank. Payment gateways have emerged as the most significant contributor in pushing Cashless and electronic payments. The surge of smart phones and internet connectivity of 3G and 4G is reflected in the robust growth of payment gateways in India. The present study is focused on Customer preference towards payment gateways with respect to Charges and Risks and effectively analysed the impact of demographic variables on the usage of Payment gateways.

Keywords: Digital payments, demonetization, E-Payments, online payments, risks, charges.

INTRODUCTION

The "Digital India" is the Indian Government's flagship program with a vision to convert India into a digitally empowered country. "Faceless, Paperless, Cashless" is one of supposed function of Digital India. It has been said that every disruption creates opportunities and one such disruption was the announcement of demonetization by Prime Minister Mr. Narendra Modi on 08 November 2016. Demonetization created huge growth opportunity for digital payment in India and the digital wallet companies garbed the opportunities with both the hands to expand their market share. Demonetization has presented a unique platform for adoption of digital payment, as an alternative to cash for Indian consumers.

Digital payment system has gained importance nowadays, especially after demonetization. The government is taking essential steps to encourage the public to use payment gateway platforms. To promote payment gateways, it has declared discounts on purchases of certain products digitally. It has also introduced UPI (United Payment Interface) which is app based to transact across multiple banks. Another improved version is set to be unveiled by the government, which makes banking transactions through mobile phones without internet by a platform called USSD (Unstructured Supplementary Service Data).

These initiatives have provided extensive boost up to the digital payment system in the country. Government's other initiatives like BHIM and UPI are supporting in transition and faster adoption of digital payments. Electronics Consumer transaction made at point of sale (POS) for services and products either through internet banking or mobile banking using smart phone or card payment are called as digital payment.

There are various facilitators creating a positive atmosphere for the growth of digital payment in India such as non-banking financial institution facilitating digital payment, penetration of internet connectivity, etc. In spite of these developments in technology, there can be seen drawbacks such as security and privacy issues which can be a major concern for the consumers.

DIGITAL PAYMENT

Digital payments are defined as any payments made using digital instruments. Physical cash is not used in this process. Both the payee and the payer use electronic modes to send and receive money in digital payment.

DIFFERENT TYPES OF DIGITAL PAYMENTS:**1. UPI apps**

UPI or Unified Payment Interface is a payment mode which is used to make fund transfers through the mobile app. You need to download a UPI app and register for mobile banking to use UPI apps. There are various good UPI apps available such as BHIM, PhonePe, SBI UPI app, HDFC UPI app, etc. UPI apps are a faster solution to send money using IFSC and account number. But if you do not have an android phone, you cannot use the UPI app.

2. AEPS

AEPS is an Aadhaar based digital payment mode. AEPS stands for Aadhaar Enabled Payment Service. Customer needs only his/her Aadhaar number to pay to any merchant. In AEPS, the money you pay will be deducted from your account and credited to the payee's account directly. You only need to link your Aadhaar number to your bank account to use AEPS.

3. USSD

USSD banking is a mobile banking based digital payment mode. Smartphone or internet connection is not required while using USSD banking. You can use this service for many financial and non-financial operations such as checking balance, sending money, etc.

4. Cards

The three main types of cards are credit cards, debit cards and prepaid cards.

□ **Credit card** is a payment card issued to users (cardholders) to enable the user to pay for goods and services based on the user's promise to the card issuer to pay them for the amounts with some additional agreed charges. A credit card is a piece of plastic offered from visa master card or any other network which allows paying for a purchase by borrowing credit from the credit card company. To purchase goods from merchant who accepts credit card needs to have a credit card reader for the settlement.

□ **Debit card** is a payment card that can be used in the place of cash while 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 any payment. A debit card is a prepaid card and also known as an ATM card. An individual has to open an account with the issuing bank which gives debit card with a personal ID Number, when he makes a purchase he enter his pin number on shop pin pad. When the card is slurped through the electronic terminal it dials the acquire a banking system either master card or visa card that validate the pin and finds out from the issuing bank whether to accept or decline the transaction

□ **Prepaid card** is a type of card which you have to recharge before using, just like prepaid SIM cards. A prepaid card is about the size of a credit card, which is made of plastic with an embedded microprocessor chip that holds important financial and personal information. The microprocessor chip is loaded with the relevant information and periodically recharged. In addition to these pieces of information, systems have been developed to store cash onto the chip. In order to pay via smart credit and it is necessary to introduce the card into a hardware terminal. The device requires a special key from the issuing bank to start a money transfer in either direction.

5. E-Wallets

E-wallet or digital wallet refers to an electronic device that allows an individual to make electronic transactions.

You can use the E-wallets to recharge your phone, pay at various places and send money to your friends.

OBJECTIVES OF THE STUDY

- To examine the age of respondents impact on digital payments.
- To study the growth of digital payment in India.
- Finding barriers for adoption of digital payment methods.
- To analyses the future trends of digital payments in India.

RESEARCH METHODOLOGY

The study is descriptive in nature. The research is conducted and based on the collection of secondary data which consists of journals, articles, research papers and internet sources. The information gathered from these sources of data have been analysed and then used in the project according to the need and relevance of the topic discussed in this project.

LITERATURE REVIEW

Sanghita Roy, Dr. Indrajit Sinha (2014), stated that E- payment system in India, has shown tremendous growth, but still there has lot to be done to increase its usage. Still 90% of the transactions are cash based. Technology Acceptance Model used for the purpose of study. They found Innovation, incentive, customer convenience and legal framework are the four factors which contribute to strengthen the E- payment system.

E-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 (Slozko & Pello, 2015).

Rakesh H M & Ramya T J (2014) in their research paper titled “A Study on Factors Influencing Consumer Adoption of Internet Banking in India” tried to examine the factors that influence internet banking adoption. It is found that internet banking is influenced by its perceived reliability, Perceived ease of use and Perceived usefulness. In the process of internet banking services expert should emphasize the benefits its adoption provides and awareness can also be improved to attract consumers” attention to internet banking services.

Kartikeya Bolar (2014) In his research paper “End-user Acceptance of Technology Interface In Transaction Based Environment“ stated that Creators and investors of technology need information about the customers evaluation of their technology interface based on the features and various quality dimensions to make strategic decisions in improving technology interfaces and compete on various quality dimensions.

Nitsure (2014) in his paper observed that the problem being faced by developing countries like India in the adoption of E-banking initiatives due to low dissemination of Information Technology. The paper highlighted the problems such as security concerns, rules, regulation and management. In India there is a major risk of the emergence of a digital split as the poor are excluded from the internet and so from the financial system.

Sanaz Zarrin Kafsh (2015), made a study on “Developing Consumer Adoption Model on Mobile wallets in Canada”, by taking a sample of 530 respondents through Convenience sampling, Partial lease square model was used to analyse the data. As per the analyse made by them, there is a relation among perceived usage, perceived ease of u se and perceived security in predicting the adoption of payment gateway.

Singh (2017) concluded that there was significant difference between education of consumers and adoption of digital payment. The perception of consumers for digital payment had positive and significant effect on adoption of digital payment among consumers.

SIGNIFICANCE OF THE STUDY

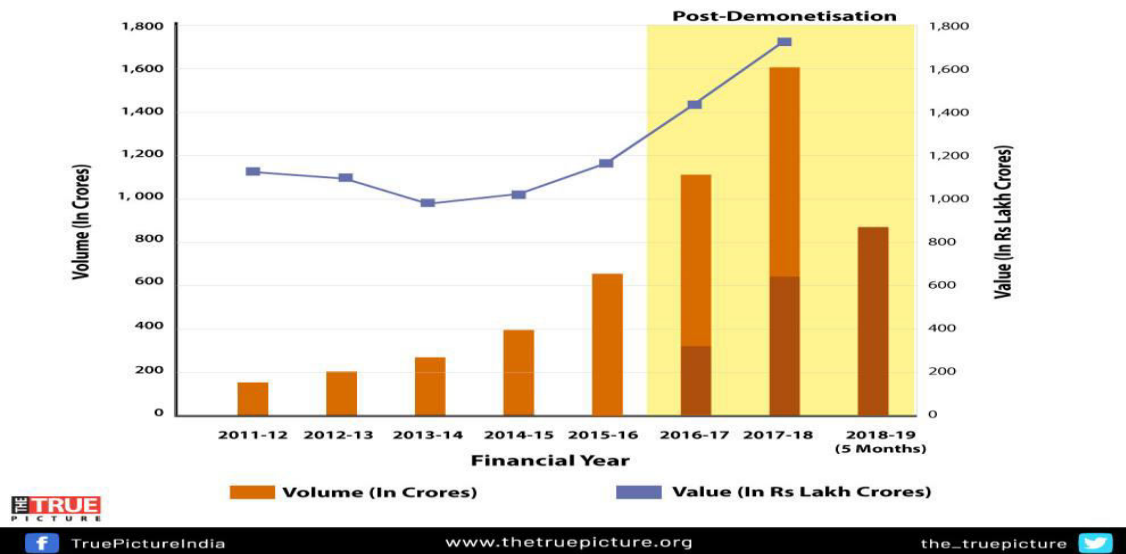
Digital payments have emerged as an essential tool for advancing financial inclusion because of several factors such as-

- 1. Lower risk:** Digital installment gives more security than the conventional installment as they have verified entryways which are exceptionally hard to alter.
- 2. Easily traceable:** Payment details that are stored in the databases, can be easily accessed by the merchants and customers both. This avoids confusion while tracking the payments.
- 3. Convenience and Accessibility:** Nowadays the customers need not carry cash or visit an ATM for payments, while they can pay with the help of digital payments from anywhere from the globe.
- 4. Discounts and Cashbacks:** Digital payments encourage the customers to make online transactions for receiving various discounts and cashback offers which helps them to save a lot of money and also incur reward points and loyalty benefits.
- 5. Saves time:** Digital payment encourages a person to avoid long lines and encourage snappier and quicker transactions.

GROWTH OF DIGITAL PAYMENTS IN INDIA

In the recent years, there has been a significant growth in the acceptance of digital payment by the consumers. With continuous advancements in technology and “Digital India” being the mission of our government, India is moving towards a cashless economy. The announcement of demonetization by Prime Minister Mr. Narendra Modi on 08th November 2016, has also resulted into tremendous growth of digital payment in India. This decision brought several crucial changes in digitalization of the Indian economy.

Digital Payment Trends in India - An Overview



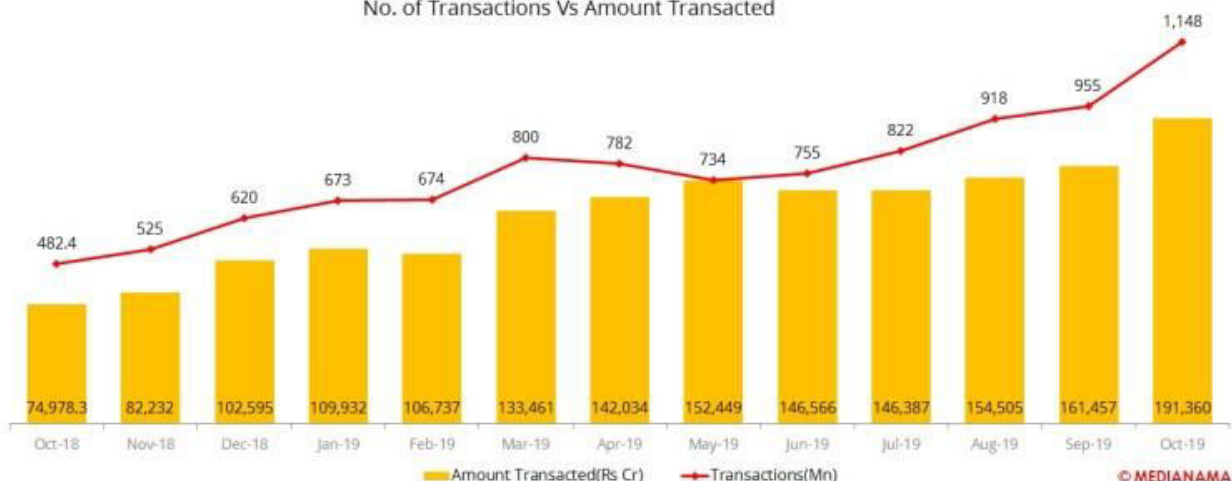
The above reference diagram means a consistent development of computerized installment in India from the 2011-12 to 2018-19. This diagram incorporates different computerized installment choices, for example, RTGS, Retail electronic clearing, charge and Visas, PPI (which incorporates M-wallet, PPI cards and paper vouchers) and Mobile banking.

The reference diagram speaks to the Volume (in crores) and the line chart speaks to the Value (in Rs. Lakh crores). The reference diagram likewise incorporates the post demonetization stage which is recorded after the year 2015-16 and spoken to in light orange shading. In the year 2011-12, there was extremely less mindfulness in regards to computerized installment furthermore, the worth was about Rs 200 lakh crores. Gradually and consistently the worth developed in the years 2013, 2014, 2015 furthermore, 2016 as individuals began to think about advanced installment and its advantages. There was an adjustment in view of shoppers towards advanced installment as it was a lot simpler and helpful. In the year 2016-17, there was a extraordinary change in the view of customers towards advanced installment because of the declaration of demonetization. Consequently, there was an abrupt development in the use of advanced installment, which was around Rs 1100 lakh crores. This was practically twofold to that of the earlier year. Thus, demonetization went about as an impetus for the development Digital installment in India. In the year 2017-18 and 2018-19 it arrived at more noteworthy statures and encouraged our country in turning into a cashless economy.

This completely explains that the digital payments have been accepted by most of the people of the nation and due to the sudden jolt of demonetization there is a very rare chance that the people will again go back to the traditional way of cash transactions.

Unified Payment Interface(UPI)

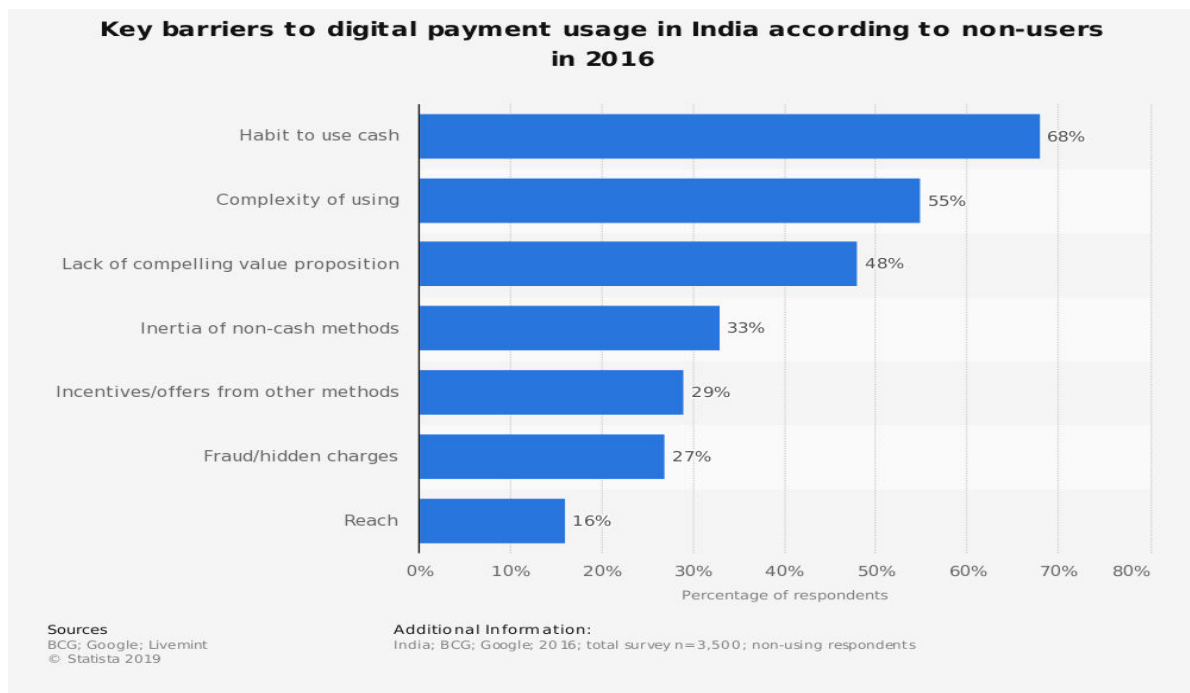
No. of Transactions Vs Amount Transacted



Unified Payment Interface (UPI) saw an increase of 20.2% in the total transaction volumes taking place between September 2019 and October 2019, according to data published by the National Payments Corporation of India (NPCI). The amount transacted grew 19% between September and October 2019. NPCI is a private company owned by Indian banks, it owns and operates important payments systems such as UPI and IMPS.

The total number of transactions in October 2019 was around 2.38 times higher than in the same month last year. The amount transacted went up to Rs 191,360 crores over previous month. The amount transacted in October 2019 was 2.5 times higher than in October 2018. However, given the limited impact of seasonality on digital payments, and the fact that this is supposed to be a high growth sector, month-on-month data needs to be looked at.

BARRIERS TO DIGITAL PAYMENT



In spite of the positive responses of the consumers towards digital payment, there are several concerns which act as barriers to digital payment. The above diagram represents various barriers to digital payment in the year 2016 in India. The percentages of each barrier are calculated in comparison to that of the Sample- non users.

- **Habit to use cash:** In the survey, the highest percentage which is 68% of population has the habit of using cash for their transactions. The Indian consumer is so used for dealing in cash that he/she feels that a track can be kept on the transactions and over spending can be avoided.
- **Complexity of using:** 55% of the population finds the digital payment system very complex. People are very sceptical towards a sudden change which they are not very familiar about. Therefore, lack of awareness and knowledge makes it difficult for the consumers to use digital payment.
- **Lack of compelling value proposition:** People who have never tried digital payment make a judgement that it lacks value and also demotivate others to use the same.
- **Inertia of non-cash methods:** The inactivity or passivity of non-cash methods does not encourage the consumers to adopt digital payment methods.
- **Incentives/offers from other methods:** Cash transactions offer various incentives to consumers which prevent them from adopting digital payment methods.
- **Fraud/hidden charges:** While making digital transactions, sensitive information such as the card number, CVV code, etc. can be obtained by a fraud person by hacking the system. When such vital information about any consumer is leaked it results into fraud charges against the digital payment entity which can create lack of trust among consumers towards digital payment.
- **Reach:** In rural and remote sections of India, awareness regarding digital payment is not so high. This results into lack of information about digital payments which becomes unable to reach to the masses.

FUTURE TRENDS OF DIGITAL PAYMENT IN INDIA

The new applications such as the Aadhaar Payment app, the UPI app, the Bharat Interface for Money (BHIM) app developed by the National Payments Corporation of India (NPCI) aim to simplify the transfer of funds across India, especially in rural areas. It also helps to facilitate an effective change towards the greater adoption of cashless services.

The future is digital

Digital payments market in India is currently pegged at \$200 billion, but is expected to touch the \$1 trillion mark by 2023, says a Credit Suisse report.

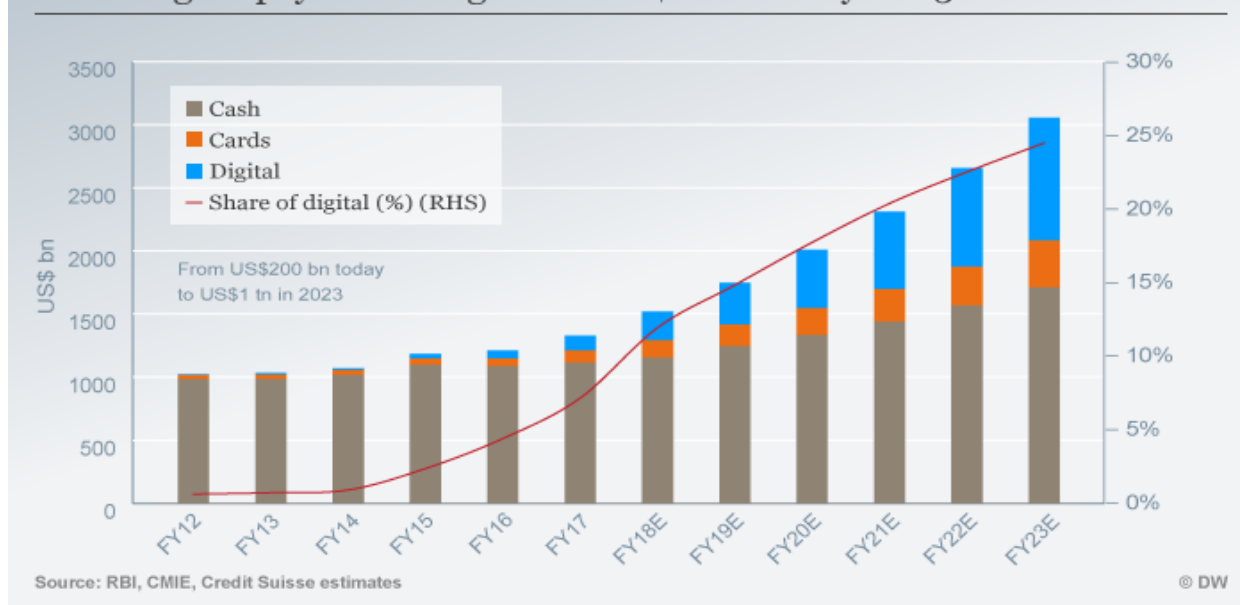
	paytm	G Pay	MobiKwik	PhonePe
User base	350 million (total active users)	25 million (monthly active users)	107 million (total active users)	118 million (total users)
Modes of payment	UPI, Wallet, Payments bank	UPI	Wallet, UPI	Wallet, UPI
What all you can do with it	UPI payments, mobile, DTH, flight, train, movie tickets	UPI payments, DTH, flight, movie ticket booking, food	UPI payments, wallet, mobile, DTH, electricity, gas, insurance	UPI payments, wallet, mobile, electricity, water, insurance
Number of offline merchants	9.5 million	1.2 million	143,332	300,000
Transaction	Over 1.5 billion transactions in a quarter	860 million transactions in 2017-18	\$3 billion gross transaction value in FY 2017-18	\$110 million transaction value in August

Payment in WhatsApp is not officially available in India yet. It is currently in beta.



Digital payments market in in india is currently pegged at \$200 billion, but is expected to touch the \$1 trillion mark by 2023, says a credit Suisse report

India digital payments to grow to US\$1 trillion by 2023



The above graph represents the change from cash transactions to non-cash transactions. In the sub-divided bargraph, the dark blue region represents digital transactions and the orange region represents cards transactions. The red line indicates share of digital percentage.

At stake is a digital payments market that Credit Suisse says will grow to \$1 trillion (€817 billion) over the next five years. Currently, India's digital payments market is worth less than \$200 billion.

CONCLUSION

The study was accomplished to explore consumer awareness, perception and willingness to adopt digital payment. In the current scenario, physical cash transactions have been almost substituted by the increasing use of cashless payments. The superiority, efficiency, safe and secured, convenient, cost and time savings, user friendly are the salient features which have a significant influence on the adoption of digital payment. In spite of this there are few limitations when it comes to the privacy and security concerns but it depends on how consumers, banks and other agencies use and handle the information. There is continuous growth and bright future of digital payments due to increasing awareness and acceptance of digital payments in India. Thus, digital payments are gaining importance in India as the consumers are relying on the digital life style to make things convenient and faster. Hence, the consumers are embracing digital payment with open arms in India.

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CASHLESS ECONOMY CHALLENGES AND OPPORTUNITIES

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INTRODUCTION

The analysis paper emphasise on impact and significance of cashless policy in India. in step with Government of India the cashless policy can facilitate to lift employment, scale back money connected theft thereby reducing risk of carrying money.

Cashless policy also will scale back money connected corruption and attract a lot of foreign investors to the country. In several countries beginning of cashless economy may be seen as steps within the right direction. it's expected that its impact are going to be felt in modernization of payment system, Reduction within the price of banking service, Reduction in high security and safety risk and additionally controls banking connected corruption.

Electronic banking are going to be created banking group action to be easier by transportation services nearer to its customers thus rising industry performance. The money safety over the digital payment suggests that is very important for pushing the cashless economy plan.

A serious obstacle for the fast adoption of alternate mode of payment is mobile web penetration, which is crucial as a result of purpose of sale terminal works over mobile web association; whereas banks are charging cash on card primarily based group action that is seen in hurdle.

India has been mistreatment electronic payment system for several years currently, but the retail sector still has predominance of group action and payment through cash is nevertheless to select up card is that the one amongst the foremost secure, convenient mode of cashless payment in retail market.

A cashless society describes associate degree economic state, Whereby money transactions don't seem to be conducted with cash within the kind of physical banknotes or coins, however rather through the transfer of digital info (usually associate degree electronic illustration of money) between the transacting parties.

Worldwide there's tremendous interest among policy manufacturers, academicians, and business enterprises to explore the chance of moving towards a cashless economy.

The Digital programme could be a flagship programme of the govt. of India with a vision to rework India into a digitally authorised society and information economy. "Faceless, Paperless, Cashless" is one amongst professed role of Digital India.

The Indian payment is apace transiting to a lot of and a lot of IT primarily based system. within the retail sector we've terribly high price of cash transactions. aside from money, one amongst the growing payment ways adopted by merchants within the sector is payments cards.

However the entire isometrics of moving from money driven economy to cashless economy has somehow been different with demonetisation that was aimed to extract liquidity from the system to unearth black cash. With increasing adoption of electronic payments, significantly those driving e-commerce and m-commerce, there's a growing demand for quicker payment services that successively facilitate ease in doing money transactions.

METHODS OF CASHLESS TRANSACTIONS

The Digital India programme is an important programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. "Faceless, Paperless, Cashless" is one of professed role of Digital India. As part of promoting cashless transactions systems and converting India into less-cash society, various methods of digital payments are available. They are as follows.

1. Cheque

The cheque is one of the oldest or conventional methods of cashless payment mechanism. It is a well known method to everyone. In this method, you issue a cheque for the specific amount to someone else. The cheque gets deposited in the respective bank account. The bank processes a payment through a clearing house. The whole transaction done through cheque gets recorded and there is a document of payment. However, but sometimes cheque payments get dishonoured due to signature mismatch or insufficient fund in bank account. In order to avoid such problem, you can use other cashless payment options.

2. Demand Draft.

Demand draft is another primary way of cashless transaction. It is a very safest method to receive payment from anyone. Demand draft (DD) never gets defaulted as it is signed by the banker. The drawbacks of DD and cheque are you need to visit a bank in order to deposit cheque and demand draft. The clearance of cheque or DD takes additional time.

3. Online Transfer.

NEFT or RTGS The third simplest way for the cashless transaction is online transfer using NEFT or RTGS. In order to do online money transfer, you need internet banking facility. Online transfer using NEFT or RTGS is comparatively faster than Cheque or DD. Online transfer can be done from anywhere using internet facility. 4. Credit Card or Debit Card Credit card or Debit card is another method of cashless payment. The usage of credit card and debit card was limited in India compared to other developed countries in the world. However, usage of credit card and debit card is increasing now a day. The limitation of this payment method is an availability of swipe card facility (PoS) at merchant end.

5. E-Wallets.

E-wallet means Electronic Wallet is another cashless payment options are available for people. E-wallet can be used to purchase products or services starting from grocery to airline tickets. In order to use E-wallets customer and merchant, both require a smart phone with active internet connection. The most popular example of E-wallet is PayPal. Apart from PayPal, you can also use Payoneer, Transferwise, Skrill, PayZa and others. After registering for E-wallet you need to link your credit card or debit card with your E-wallet id. You can use E-wallet for fund transfer from one account to another account or online shopping. It is a simplest cashless method.

6. Mobile Wallets.

The next cashless payment option is a mobile wallet. You do not required debit card, credit card or internet banking password for making payment using a mobile wallet. Just load money in your wallet via IMPS and use it on the move. You can download mobile wallet app from play store in smart phone. Some examples of mobile wallets are Pay tm, Pay money etc .

7. UPI apps.

UPI is a mobile payment method which allows you to do different financial transactions on your smart phone. UPI allows you to send or receive money using virtual payment address without entering bank information. Merchants can enroll with banks to accept payments using UPI. Like in the case of a PoS machine, the merchant would require a current account with a bank to accept UPI payments. The examples of few UPI Apps are SBI Pay, ICICI Pocket, Axis Pay UPI App, Union Bank UPI App, PNB UPI, PhonePe, TranZapp etc.

8. Gift Card.

The next cashless payment system is a gift card. Gift Card is a readymade card and can be purchased from a merchant or from the bank. The gift card is loaded with a fix cash amount you can purchase any item from the specific vendor by using a gift card.

9. Aadhaar Enabled Payment System.

Aadhaar Enabled Payment System (AEPS) is one of the better and transparent cashless payment methods. AEPS is like Micro ATM, it uses smart phone and a finger-print scanner for the transaction. In order to use this facility, it is compulsory to link your Aadhaar card number to your bank account. You can use AEPS in order to perform transaction like Aadhar to Aadhar fund transfer, Cash withdrawal, Cash deposit etc.

10. Unstructured Supplementary Service Data

You can use USSD cashless method if you don't have a smart phone or internet connection. Unstructured Supplementary Service Data is mobile banking service. From any mobile phone, you can dial *99# and use this service. You can do all these things which are available to a person with smart phone and internet connection. Almost all banks including SBI, ICICI, BOB, Axis Bank and PNB support USSD payment option.

OBJECTIVES OF THE STUDY

1. The aim behind this research is to know what is cashless transaction means.
2. Impact and importance of cashless transaction system.
3. Analyse the future trend of cash less transaction.

REVIEW OF LITERATURE

(Sharma, 2017) Conducted a survey to understand the potential for cashless economy in India through an extensive household survey of Jodhpur city. It was estimated the extent to which households made non cash expenditure. It was also identified the bottlenecks which prevented households to make non cash payments like Security, internet connection, loss of card, hackers activity, lack of technology are worries of customers towards switching to cashless economy

(Kumari & Khanna, Cashless Payment: A Behavioural Change to Economic Growth, 2017), The study examines the effect of adopting cashless payment on economic growth and development of the developing countries. The paper discovered that the adoption of the cashless economy policy can enhance the growth of financial stability in the country. It appears that much has already been done in making the people aware of the cashless economy and that a sizeable proportion of the people are actually awaiting the introduction of the cashless economy. Cashless economy initiative will be of significant benefits to developing economy; hence the cashless system will be helpful in the fight against corruption and money laundering. One most significant contribution of the cashless economy is that it is expected to reduce the risk associated with carrying cash.

(Gupta, 2017), The main of the paper was to find out scheme, achievements and challenges of Haryana government for the cashless transaction. She says that in order to promote cashless transactions in India Central Government has also launched Lucky Grahak Yojana and Digi Dhan Vyapar Yojana in which monetary benefits will be provided to citizens using cashless means for transactions. The Haryana government has decided to observe a 'cashless week' from January 20 to January 27 to promote digital payment in the state. The government has also decided to engage college students and staff (both teaching and non teaching) to promote the mission.

(Garg & Panchal, 2017), her paper led light on the views of people on cashless economy in India. Responses from respondents shows that cashless economy will help in curbing black money, counterfeit's fake currency, fighting against terrorism, reduce cash related robbery, helps in improving economic growth of our country. Major challenges that can hinder the implementation of the policy are cyber fraud, High illiteracy rate, attitude of people, lack of transparency & efficiency in digital payment system. The study shows that the introduction of cashless economy in India can be seen as a step in right direction. It helps in growth and development of economy in India.

Dr. Tushar Chaudhari (2017): Cashless transaction systems are not possible without adequate internet facilities, so government must investigate in infrastructure availing internet. Especially free wi-fi zones should be made available at local market .All the major banks must have separate counter which will be particularly used for assistance and guidance for cashless transaction system. Extra charges on Cashless transaction must be stopped. It should be made compulsory to all cooperative societies to make Cashless transaction specially cheque or demand draft. Some advantages must be given to the people who are using Cashless transaction. The vast advertisement campaign must be launched which will not only develop Cashless transaction but also will provide valuable assistance in using it.

Dr. Budheshwar Prasad SinghraulV(2018) : The major findings of the study show that India in terms of using digital payment methods is still very poor in comparison to other developed countries in the world. As many countries are already turned up with their electronic payment system, India is in its beginning stage and all most of all population are mainly dependent on paper cash based transaction because of unavailability of proper internet connectivity, lack of awareness and knowledge of financial transaction, charges on card payments and un operational bank accounts.

Dr. Anthonima K. Robin (2018): This study focus on cashless transaction is having a long term impact on the lives of the people. As there are two sides of coin, there are positive and negative impact of the scenario generated after demonetization. With the increasing usage of cashless means people are tend to feel save as they are free from carrying a wallet full of physical notes along with us, which is not at all safe in a world full of anti-socials activities. People rather prefer to use mobile as the most effective method of payment. Mobile have started serving as an important instrument for all kinds of transactions such as bill payments, fees payments, funds transfer, recharge, etc. . In further to this, some other crimes such as burglary, extortion, bank robbery, etc. are also declining. One of the most important motives to implement and motive cashless transaction is to take control on the illegal transactions and all activities related to terrorism.

Preeti Garg & Manvi Panchal (2017): Examined that many people actually positive opinion about cashless transactions and usefulness of cashless economy as it helps to fight against terrorism, corruption, money laundering but one major problem in the working of cashless economy in India is cybercrimes and illegal access

to primary data. Therefore it's important to strengthen Internet Security from protection against online frauds. Huge number of population in India is still below literacy rate living in rural areas. For smooth implementation of cash less system in India, the following some measures are recommended Government have to bring transparency and efficiency in e-payment system, strategies used by government and Reserve Bank of India to motivate cashless transactions by licensing payment banks, promoting mobile wallets and withdrawing service charge on cards and digital payments. A financial literacy campaign should be conducted by government continuously to make population aware about advantages of electronic payments.

Sheetal Thomas & G. Krishnamurthi (2017): Examined that there is enormous potential that rural economy in India can become a cashless economy. The rural population is ready to learn it, with one person receiving benefit soon the rest of the village will follow. Keeping the level consumption patterns and the recent trends into mind the government can plan for implementation of basic support system like, incentivizing the use of internet through free data and smart phones, distribution of laptops to students taking higher education in nearby towns. Another way is by creating awareness about digital transactions and financial literacy among rural people by partnering with different educational and NGO's. It can make the cashless rural economy a reality from dream.

RESEARCH METHODOLOGY

The present study is based on descriptive in nature. The study has been carried out based on the collection of the available secondary data. Secondary data was collected from different sources such as articles published in different journals & newspapers, published books, periodicals, conference paper, working paper and websites, etc.

ANALYSIS AND INTERPRETATION

After studying all relevant secondary data with respect to cashless transaction in India I have come to know the following points

IMPORTANCE OF CASHLESS TRANSACTION

1. Taxation

With lesser availability of hard cash at homes and more in banks there is lesser scope of hiding income and evading taxation and when there are more tax payers it ultimately leads to lesser rate of taxation for the whole country.

2. Transparency and accountability

It becomes a lot easier to track the flow of money with every transaction being recorded with the buyer ,seller as well as regulatory bodies ,making the system much more transparent and compliant.

3. Reduce Corruption And Improves Service Time

With cashless transaction through electronic means the wire transfer are tracked and people are accountable which in turn reduces corruption and improves service time.

4. Less Availability of Cash for Illegal Activities.

When people are encouraged to go cashless there is lesser cash available with people and there will not be a means to invest in other activities to use the idle cash. Channels like illegal remittance will ultimately suffer the brunt of cashless economy.

5. Pack Of Cards.

No need to carrying the required cards or mobile banking will suffice. More sense of safety with PIN protected card etc. This will work only with your own credentials.

6. No Fear of Being Robbed

Unlike carrying cash and letting everyone know that at there could be something worth snatching.

7. Tracking of expenses.

It becomes easier to determine how much was spent where.

Future Trend of Cashless Transaction of India

With the rise in internet connectivity, smartphone penetration and the plethora of options available for digital transactions, more and more people are opting for cashless modes of payment. While the number of UPI based transactions is already 1.2 times higher than debit card based ones in 2018-19, several studies are suggesting an even more upsurge in these figures in the coming years.

According to the annual report of the RBI, the number of transactions via UPI were 5.35 billion as compared to the debit card payments which were 4.41 billion, thereby, making the UPI- based transactions 1.2 times higher than the number of debit card transactions in 2018-2019.

This shift from the cash and plastic payments to digital is enormous, taking into consideration the fact that last year, that is, 2017-2018, the number of UPI transactions were only 915.2 million as compared to the 3.34 billion debit card transactions.

E-wallet payment method is more preferred by customers than any other payments. According to this survey, 1% users preferred cash as a payment method, 18% for debit/credit cards, 23% for net banking and 59% users preferred E-Wallet as payment. and in future also E-Wallet system will be more preferable.

With this rising trend of digital payments being supported by the government, the future of a cashless Indian economy seems bright. According to a study instituted by ASSOCHAM-PWC India, the digital payments in India will more than double from USD 64.8 billion this year to USD 135.2 billion in 2023.

Commenting on this development in a global light, the study further claims that India's share of the worldwide transaction value of digital payments is also set to increase from 1.56 pc to 2.02pc in the coming four years. With the increasing internet connectivity as well as the availability of smart phones, even the rural areas have registered a 35 pc growth in the internet users in the past one year. With such positive results, the digitalisation of payment trajectories in the rural sections of the society seems achievable in the near future.

Talking of the impact of this digitalisation on the country's economy, another independent study by Google and BCG has estimated the Indian digital payments industry to touch USD 500 billion by 2020, contributing 15 pc to the country's GDP. The Indian fintech software alone is expected to double itself to USD 2.4 billion by 2020, as shared by NASSCOM.

CONCLUSION

However, the benefits of this move have now started trickling in with more and more people switching to digital modes of receiving and making payment.

India is gradually transitioning from a cash-centric to cashless economy. Digital transactions are traceable, therefore easily taxable. Leaving no room for the circulation of black money. The whole country is undergoing the process of modernization in money transaction, with e-payments services gaining unprecedented momentum. a large number of business, even street vendors, are now accepting electronic payments, prompting the people to learn to transact the cashless way at a faster pace than ever before.

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NEURAL NETWORK MODEL OF VISUAL INSIGHT DETECTION FOR REMARKETING PRODUCTS OR SERVICES BASED ON IMAGES UPLOADED BY CONSUMERS WITH SPECIFIC ACTIVITIES

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1. Abstract

Nowadays people prefer describing their choices, sentiments, mood, journey, adventure, excitement, sorrow through images as compared to blogs, reason being ease of use, less time consuming and affordable technology, such activities has led to exponential growth in pictures/images in recent times, this is a section of data cannot be ignored especially when you are in marketing and sales, images if analysed properly have significant impact on kind of information they can reveal. The model that we have created will play role of a 'Rejoiner' which would automate the act of advertising to the same person more than once based on the images of daily activities shared by consumers.

Index Terms: Remarketing, Visual Insight Detection, Machine Learning

2. Introduction**2.1 Background**

The task of Visual Insight Detection involves an image and a related text question, to which the machine must determine the correct answer. The task lies at the intersection of the fields of computer vision, natural language processing, machine learning and digital marketing. It is based on a deep neural network that implements the well-known joint embedding approach.

2.2. Scope of the Research**2.2.1 Gap Analysis**

Remarketing is an advertising strategy that targets potential customers who have already visited your website. At its core, remarketing is the process of tagging your site visitors and targeting them with content after they leave your site, to reengage them and bring them back to your site. Remarketing gives you the opportunity to appear in front of people who have already expressed an interest in your website (Kim, 2014). They could be checking their email, reading the news, watching a YouTube video and companies can promote their products or services based on the search words; which are saved in the form of data or retrieved as cookies.

Currently, words typed by consumers are used. In this project we are giving images as input for the process of remarketing,

2.2.2 Need Analysis

Remarketing campaigns see a 4x lower cost-per-acquisition compared to standard display targeting options. Instead of wasting your budget on identifying and educating new audiences, remarketing captures potential customers who have already shown interest in your company's products or services.

Remarketing audiences are native to Analytics; the model that we have created with play role of a 'Rejoiner' would do good job and will automate the act of advertising to the same person more than once based on the images of various activities uploaded by the consumers.

Use Case 1:

Showcasing insight using entity: Picture uploaded by Consumer on Instagram

Entity – Donut, Bicycle, TShirt



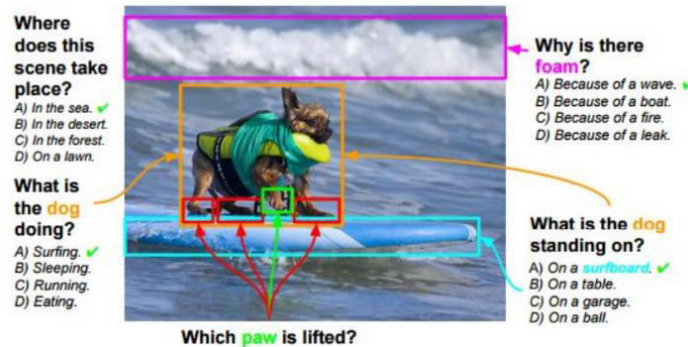
Application: This image can be used to remarket Donuts or Cycle or Shirt

Use Case 2:

Showcasing application of intent and entity: Picture uploaded on Facebook

Intent – Surfing, Relaxing

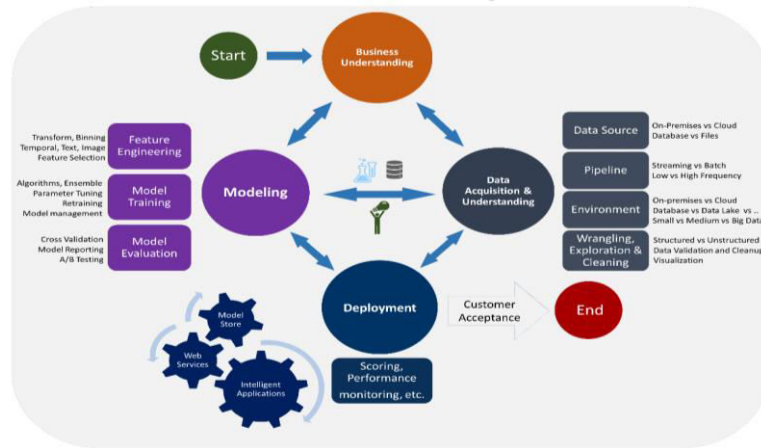
Entity – Surfboard, Dog, Sea, Waves



Application: This image can be used to remarket surfboard, dog or a Hotel near the sea

3. Data & Project Methodology Used

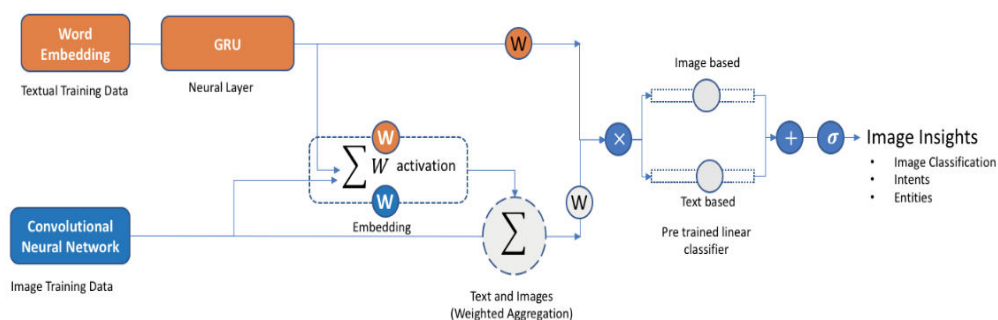
3.1 Usage models developed step for Data Acquisition, Data Preparation, Hypothesis and Modelling



Research used the following steps to identify data

- Tagging:** Identify and tag visual features in an image, based on more than 2,000 recognizable objects, living beings, scenery, and actions. When tags are ambiguous or not common knowledge, the response provides 'hints' to clarify the meaning of the tag in the context of a known setting. Tagging isn't limited to the main subject, such as a person in the foreground, but also includes the setting (indoor or outdoor), furniture, tools, plants, animals, accessories, gadgets, and so on.
- Categorization:** Identify and categorize an entire image, using a taxonomy with parent/child hereditary hierarchies. Categories can be used alone, or with our new tagging models. (Multi Label)
- Image Description:** Generate a description of an entire image in human-readable language, using complete sentences. Smart Vision's algorithms generate various descriptions based on the objects identified in the image. The descriptions are each evaluated, and a confidence score generated. An ordered list is then returned with highest confidence score to lowest.

3.2. Service Purposes Definition



3.4 Implementation Scenario Review

- **Sampling Technique:** Clustered Sampling
- **VID:** The model would be able to capture intent from an image, which can be used for remarketing product or category from the same or competitive company as part of tactics for executing market penetration strategy or upselling or cross selling.
- **User Interface:** The interface will have capability to trigger use cases like identifying the entities and intents in an image, generating summary of an image.

4. Hypothesis:

For our neural network model we will be computing a matrix of actual results versus predicted results in order to establish the accuracy of a model, this matrix also known as error matrix or confusion matrix can help us deduce other factors of our model like









- Precision
- Recall
- F-Measure

Upon development of the model we can use the confusion matrix to validate our business use case for multiple use cases testing the H_0 and H_a along with $Type_1$ and $Type_2$ errors

- accurately identifying entities and their relationship
- Tagging of images with appropriate intents, keywords describing the content
- Identifying the logos and mapping them with brands, domain

Sample confusion matrix definition with an example:

		Test Result	
		H_0	H_a
Actual Value	H_0	True Negative {Probability = $(1 - \alpha)$ }	False Positive (Probability = α) Type I Error
	H_a	False Negative (Probability = β) Type II Error	True Positive {Probability = $(1 - \beta)$ }

		Predicted			
					
Actual		1	1	0	0
		0	1	0	0
		0	0	1	1
		0	0	0	1

5. Screen View Task Project : Code Snippet

A. Image pre-processing : Configuration:

```
width = 32
height = 32
posshift_min = -5
posshift_max = 5
scales = [0.9, 1.1]
rot_min = -15
rot_max = 15
```


b. Cropping, centre shift, scaling and rotation of image for augmentation

```

154 def crop_and_aug(annot_train): # parent function which call all the sub functions.
155     cnt_per_file = defaultdict(int)
156     for annot in annot_train:
157         # for generating a file name
158         fn, _, _ = parse_annot(annot)
159         cnt_per_file[fn] += 1
160
161         # skip if width or height equal zero
162         if is_skip(annot[3:]):
163             print('Skip: ', fn)
164             continue
165
166         # open an image
167         im = Image.open(os.path.join(imgdir, fn))
168
169         # normal cropping
170         cropped_ims, cropped_suffixes = crop(annot, im)
171
172         # augment by shifting a center
173         shifted_ims, shifted_suffixes = posshift(annot, im)
174
175         # augment by scaling
176         scaled_ims, scaled_suffixes = scale(annot, im)
177
178         # augment by rotation
179         rotated_ims, rotated_suffixes = rotate(annot, im)
180
181         # save images
182         save_im(annot, cnt_per_file[fn], [cropped_ims, cropped_suffixes],
183             [shifted_ims, shifted_suffixes], [scaled_ims, scaled_suffixes],
184             [rotated_ims, rotated_suffixes])
185

```

c. Train and test split

```

208 def do_train_test_split(): # For splitting dataset into 2 directories Train and Test.
209     class_names = [cls for cls in os.listdir(pp_dir)]
210     for class_name in class_names: # create directories under a particular class name.
211         if os.path.exists(
212             os.path.join(pp_dir, class_name, 'train')):
213             continue
214         if os.path.exists(
215             os.path.join(pp_dir, class_name, 'test')):
216             continue
217
218         imgs = [
219             img
220             for img in os.listdir(
221                 os.path.join(pp_dir, class_name))
222         ]
223         # train=0.75, test=0.25
224         train_imgs, test_imgs = train_test_split(imgs)
225         # move images to train or test directory
226         os.makedirs(os.path.join(pp_dir, class_name, 'train')) # create directories
227         os.makedirs(os.path.join(pp_dir, class_name, 'test'))
228         for img in train_imgs:
229             dst = os.path.join(pp_dir, class_name, 'train')
230             src = os.path.join(pp_dir, class_name, img)
231             shutil.move(src, dst) # moving image into that directory
232         for img in test_imgs:
233             dst = os.path.join(pp_dir, class_name, 'test')
234             src = os.path.join(pp_dir, class_name, img)
235             shutil.move(src, dst) # moving image into that directory
236

```

d. Training in the machine for Machine Learning

- a. TensorFlow pre-processing pipeline
- b. TensorFlow image augmentation pipeline
- c. Creation of convolutional network

```

31 dataset, labels = read_data()
32 X,Y = reformat(dataset[0], labels[0])
33 X_test, Y_test = reformat(dataset[1], labels[1])
34 print('Training set', X.shape, Y.shape)
35 print('Test set', X_test.shape, Y_test.shape)
36
37 # Shuffle the data
38 X, Y = shuffle(X, Y) # Imported from TFLearn.
39
40 # Make sure the data is normalized
41 img_prep = ImagePreprocessing() # Packages are imported from TFLearn.
42 img_prep.add_featurewise_zero_center()
43 img_prep.add_featurewise_stdnorm()
44
45 # Create extra synthetic training data by flipping images on our data set.
46 img_aug = ImageAugmentation()
47 img_aug.add_random_flip_leftright()
48 network = input_data(shape=[None, 32, 32, 3], data_preprocessing=img_prep, data_augmentation=img_aug)
49 network = conv_2d(network, 64, 3, activation='relu')
50 network = max_pool_2d(network, 2)
51 network = conv_2d(network, 128, 3, activation='relu')
52 network = conv_2d(network, 256, 3, activation='relu')
53 network = max_pool_2d(network, 2)
54 network = fully_connected(network, 512, activation='relu')
55 network = dropout(network, 0.5)
56 network = fully_connected(network, 10, activation='softmax')
57 network = regression(network, optimizer='adam', loss='categorical_crossentropy', learning_rate=0.001)
58 model = tflearn.DNN(network, tensorboard_verbose=0, checkpoint_path="model/logo-classifier.tfl.ckpt")
59 model.fit(X,Y, n_epoch=10, shuffle=True, validation_set=(X_test, Y_test), show_metric=True, batch_size=128, snapshot_epoch=True,
60         run_id='logo-classifier')
61
62 # Save model when training is complete to a file
63 model.save("logo-classifier.tfl")

```

e. Testing of Hypothesis:

```

if len(sys.argv) > 1:
    test_image_fn = sys.argv[1]
    if not os.path.exists(test_image_fn):
        print("Not found:", test_image_fn)
        sys.exit(-1)
    print("Test image:", test_image_fn)
    img = scipy.ndimage.imread(test_image_fn, mode="RGB")
    img = scipy.misc.imresize(img, (32, 32), interp="bicubic").astype(np.float32, casting='unsafe')
    prediction = model.predict([img])
    prediction_val = np.argmax(prediction[0])
    print('predicted logo" {}'.format(label(prediction_val)))

```

f. Model Testing for AI :

 <p>image6.jpg JPEG image - 104 KB</p>	<pre> Sanjays-MacBook-Air:brand_detection singsanj\$ python test.py random/image6.jpg WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/initializations.py:119: UniformUnitScaling.__init__ (from tensorflow.python.ops.init_ops) is deprecated and will be removed in a future version. Instructions for updating: Use tf.initializers.variance_scaling instead with distribution=uniform to get equivalent behavior. WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/objectives.py:66: calling reduce_sum (from tensor flow.python.ops.math_ops) with keep_dims is deprecated and will be removed in a future version. Instructions for updating: keep_dims is deprecated, use keepdims instead 2019-03-13 13:51:26.611770: I tensorflow/core/platform/cpu_feature_guard.cc:141] Your CPU supports instructions that thi s TensorFlow binary was not compiled to use: AVX2 FMA Test image: random/image6.jpg predicted logo" [{"Starbucks", 0.584128719335154}] </pre>
 <p>image4.jpg JPEG image - 36 KB</p>	<pre> Sanjays-MacBook-Air:brand_detection singsanj\$ python test.py random/image4.jpg WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/initializations.py:119: UniformUnitScaling.__init__ (from tensorflow.python.ops.init_ops) is deprecated and will be removed in a future version. Instructions for updating: Use tf.initializers.variance_scaling instead with distribution=uniform to get equivalent behavior. WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/objectives.py:66: calling reduce_sum (from tensor flow.python.ops.math_ops) with keep_dims is deprecated and will be removed in a future version. Instructions for updating: keep_dims is deprecated, use keepdims instead 2019-03-13 13:49:49.737327: I tensorflow/core/platform/cpu_feature_guard.cc:141] Your CPU supports instructions that thi s TensorFlow binary was not compiled to use: AVX2 FMA Test image: random/image4.jpg predicted logo" [{"Apple", 0.7592879326518016}] </pre>
 <p>image12.jpg JPEG image - 1.1 MB</p>	<pre> Sanjays-MacBook-Air:brand_detection singsanj\$ python test.py random/image12.jpg WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/initializations.py:119: UniformUnitScaling.__init__ (from tensorflow.python.ops.init_ops) is deprecated and will be removed in a future version. Instructions for updating: Use tf.initializers.variance_scaling instead with distribution=uniform to get equivalent behavior. WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/objectives.py:66: calling reduce_sum (from tensor flow.python.ops.math_ops) with keep_dims is deprecated and will be removed in a future version. Instructions for updating: keep_dims is deprecated, use keepdims instead 2019-03-13 13:53:35.087881: I tensorflow/core/platform/cpu_feature_guard.cc:141] Your CPU supports instructions that thi s TensorFlow binary was not compiled to use: AVX2 FMA Test image: random/image12.jpg predicted logo" [{"Heineken", 0.7762471089317247}] </pre>
 <p>image13.jpg JPEG image - 51 KB</p>	<pre> Sanjays-MacBook-Air:brand_detection singsanj\$ python test.py random/image13.jpg WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/initializations.py:119: UniformUnitScaling.__init__ (from tensorflow.python.ops.init_ops) is deprecated and will be removed in a future version. Instructions for updating: Use tf.initializers.variance_scaling instead with distribution=uniform to get equivalent behavior. WARNING:tensorflow:From /anaconda3/lib/python3.6/site-packages/tflearn/objectives.py:66: calling reduce_sum (from tensor flow.python.ops.math_ops) with keep_dims is deprecated and will be removed in a future version. Instructions for updating: keep_dims is deprecated, use keepdims instead 2019-03-13 13:57:14.993727: I tensorflow/core/platform/cpu_feature_guard.cc:141] Your CPU supports instructions that thi s TensorFlow binary was not compiled to use: AVX2 FMA Test image: random/image13.jpg predicted logo" [{"Vodafone", 0.9135912912430119}] </pre>

6. Anticipated Outcomes / Possible Analysis:

- Product Category Classification: The outcome expected is if anyone uploads any image to intended social network website, the company associated with category or product should be able to remarket their product with reference to the data collected by our analytical model.
- Analysis of online product made simple, can analyse the product without product tags made available in the images.
- All the images to be searchable and ranked contextually with higher accuracy.
- Help marketing team in enriching their user context by gathering more user context through images available online.
- Sentiment analysis
- Image description generation in a natural language easily understood by human.
- Image summarization, entities and intent extraction.

7. Further Studies:

- Brand associate classification: The model can be used to identify Brand associates like logo, retail space, Mascots from the images uploaded by customer or consumer and use it for remarketing
- Detect domain specific content and Describe: Extract the context from the image and classify by domain for example: Retail, Nature, Disaster etc. (Multi Class)
- The model can also aid banks use images as data source and analyze them to deduce the creditworthiness of a customer

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DEMONETISATION – AN APT SOLUTION TO RESOLVE THE CURRENT MONETARY CHAOS**Dr. Vinay G. Bhole**

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Abstract

The fundamental idea behind "Demonetisation" was to make economy free from unaccounted money. It was also expected to strengthen Banking System and to revive Industrial Finance. It was the idea to enforce taxation policy of government. When the policy was proposed, it had hidden agenda of elimination of fake currency which was dumped in Indian economy by enemy countries. When the enemies are unable to fight directly, to weaken the Indian economy and to explode the inflation in India they pump fake currency notes on large scale. The currency notes issued by the Government are not reaching to the Banks but some part of it is down flowing into black money channels. It is happening through corruption and unaccounted business transactions.

Banks are not getting deposits as the white money circulates in the economy in the form of transactions. The deposits with banks are being taken away by Non-Performing Assets (NPAs). It is the situation that, the entire Banking system has lost its role in the progress and development of the agriculture, industry and economy at large. The important Industries are facing with shortage of capital. It is happening only due to black money. The markets have become stagnant and static.

In this situation of chaos and difficulties, the demonetisation is strongly suggested. In some areas it has shown tremendous success whereas in some other areas it has shown part satisfaction

Black money has become parallel economy in the country. It has direct effect on good governance. Corrupt practices has a direct effect on Public Policy.

The main intension of Government behind Demonetisation of currency notes Rs. 1000 and Rs. 500. These higher denomination notes constituted Rs. 15.44 lakh crore or 86% of the total value (Rs. 17.95 lakh crores) of currency notes in circulation as on 8th November 2016. The basic idea behind all this exercise was to break the impact of black money, to eliminate corruption and to stop completely the use of fake currency notes by terrorists.

Keywords: *Demonetisation, Enforcement, Patriotic Emancipation, Parallel Economy, Stringent Decisions.*

Introduction:

In the present political and economic scenario Demonetisation is the right and ethical decision. It is the major financial decision taken by the Government. However, its importance and value depends on how the existing political and financial administration, monetary and fiscal policies as well as the policy decisions taken by RBI. Public participation plays a significant role in this matter. People were expected to face inconvenience for few days. To cleanse the economic systems such steps are needed. Citizens were co-operative in this matter. To make Indian economy as healthy economy it was necessary.

Meaning and Definition of Demonetization:

Demonetization is the act of withdrawing a currency unit of its status as legal tender. It happens whenever there is a change of national currency. The existing form of money is withdrawn from circulation. It is replaced with new notes or coins. In some cases, complete replacement of the old currency with new currency is done.

Reasons behind Demonetisation

There are various reasons responsible for the demonetisation of existing units of currency:

1. to curb inflation,
2. to eradicate corruption,
3. to control and minimise crime,
4. to control and minimise tax evasion,
5. to discourage a cash-dependent economy,
6. to facilitate trade and commerce in large scale,

Analysis of the term ‘Demonetisation’:

Since independence various Governments were unable to control the inflation. Price rise is the main economic problem faced by the nation since independence. However, economic growth, GDP growth etc. are the reasons given by the concerned departments while sidelining the issue of inflation etc. It is observed by the economists that, the inflationary tendency of our economy has reached to its threshold by 2010 itself. Afterwards, it was to fall down into uncontrollable situation. It happened due to pumping of fake currency during elections. It is also a problem created by our neighboring enemy nations. Their political agenda is to make India dependent on foreign aid for the economic development, trade and business.

Since last two decades, Indian economy is undergoing serious tensions and threat of parallel economy created by the fake currency and black currency. It is a hurdle in the way to good governance. In India, black money estimated at 30% of GDP. The present Government of India took a strategic decision of demonetization. By demonetizing high denomination notes i.e. Rs. 500 and Rs. 1000 by declaring these currency notes in use would no longer be legal tender from the midnight of 8th November, 2016. It was declared that, these notes will not be acceptable for any financial transactions.

Demonetization policy of Modi government is not the first time implementation of the same in India. During British regime, Government demonetized high denomination currency notes of Rs. 500, Rs. 1000 and Rs. 10,000. It was done by passing an ordinance on 12th January, 1946. Citizens in possession of these high denomination notes were given ten days to tender these notes for exchange. It was expected from citizens to provide a declaration stating the same. The citizens were asked to deposit the currency notes either at a branch of Reserve Bank of India, a Scheduled Commercial Bank or a Government Treasury.

Second time demonetization took place in 1978. It was for high value currency notes of Rs. 1,000, Rs. 5,000 and Rs. 10,000. At that time, Government ordered for just a week time to the people to exchange the demonetized notes. It was from January 16th to 24th January 1978. The demonetisation of 1946, 1978 and 2016 has a vast difference. Presently, general laymen also possess currency notes of higher denominations.

On 8th November 2016 the value of all currency notes in circulation was approximately Rs. 17.95 lakh crores. Out of which the value of currency notes of Rs. 1000 and Rs. 500 denominations was Rs. 15.44 lakh crores. It was 86% of the total value of currency notes in circulation.

In 1978 only 0.64% of the high value denomination currency notes of the total money was in circulation and 86% of the total money in circulation ceases to be legal tender.

The explanation given by the Government for demonetization is the need of an hour to check, control, break and eradicate the impact of black money and corruption. It was expected to eliminate the circulation and use of fake currency notes by anti-social elements. The White Paper brought out by the then Union Ministry of Finance in May, 2012 defined black money. In the first case it is defined as, "Assets or resources that have neither been reported to the public authorities at the time their generation nor disclosed at any point of time during their possession".

The White Paper also pointed out in the first case that black money can be generated through the following ways:

1. Failing to pay dues to the public exchequer,
2. Illegal activities like drug trade, terrorism, crime and corruption.

In the Second case, black money is defined as, the activities conducted to earn money might be legal but the guilty may simply failed to report the income generated to evade tax payment.

Areas of Generation of Black Money:

Certain sectors are popular for the generation of black money. The sources are as follows:

1. Financial Markets,
2. Public Procurement areas,
3. Land and Real Estate,
4. Informal Sectors,

5. Bullion, Diamonds and Jewellery
6. Cash / parallel economy,
7. Non - Profit Sectors (NGOs),
8. Election Expenditure,

Black money is related to the market based production of goods and services. The source of income may be legal or illegal that does not consider entries in the official statistics of GDP. Presently, there are no estimates of the black money at the universal level. Most of the experts are dependent on estimations given by World Bank on black money.

Economic growth in India has shown a slight decline i.e. 7.1% in the fiscal year ending March 31st, 2017 compared to 7.6% of previous financial year 2015 -16.

The main intension to execute this decision is to stop black money generation. It is also expected to stop institutional corruption in all areas of the Indian economy. The problem of corruption has become common for state administration, political activities, politics in general and society at large since last seven decades.

Present Government felt that it is the need of the hour i.e. Black Money eradication, through withdrawal of two high denomination currency notes in circulation. It was also with time bound exchange of its value through unaccounted bank transactions. It is also a direct check on cash hoarders.

Who got affected due to demonetisation? :

The sudden policy decision by the government through demonetization was expected to have to control on the following:

1. Corrupt and unethical practices of bureaucrats,
2. Tax evasion psychology of the citizens,
3. Manipulations by business class,
4. Cash hoarding by the citizens,
5. Political corrupt system.

All the above groups, categories and systems have become threat to Indian economy. All financial transactions through banks are necessary for making the economy free from corruption. This increases Government revenues. It helps in the formation of funds allocation required for health care, education, infrastructure and son on. It is required to reach economically backward sections to meet the common needs of poor people. The intention of the Government is not to trouble anyone but to eradicate poverty, to promote employment opportunities to youth and to increase the productivity of all the sectors. It results into a faster growth in GDP.

Merits of Demonetization:

1. Indian economy to become free from corruption.
2. People holding unaccounted cash are expected to present their sources of income and submit PAN for financial transactions.
3. To stop funding to the illegal activities that are managed unaccounted cash flow.
4. Money laundering traced by Income Tax department will attract immediate legal action against people involved in such activities.
5. Most of the fake currency in circulation is of Rs. 500 and Rs. 1000 notes. Demonetisation will curb the circulation of fake currency.
6. The people having illegal income were given a chance by the Government to declare their assets and pay tax on the same.
7. Individuals are required to submit PAN for any deposit of above Rs 50,000 in cash.
8. The final objective is to make India a cashless society.

Demerits of Demonetization:

1. Demonization caused huge inconvenience to the people.

2. Due to the shortage of cash in economy, the entire Indian economy became static and standstill.
3. Daily-wage earners were left with no work as their employers faced cash crunch.
4. The government was compelled to bear the cost of printing of the new currency notes.
5. The 2000 rupees' note became a burden on the people as no one likes to do transaction with such high value currency.
6. Many cash hoarders discarded the demonetized currency notes. It was a loss to the country's economy.

Conclusion:

After the demonetization many cash hoarders did not exchanged their black money into white. In many cases the bank loans of the public paid by the black money holders guarantees. In many cases, they have sent their dummy representatives to the banks to deposit the black money in their smaller accounts.

It is observed that, even the indigenous bankers cooperated with the black money holders to get new notes for banned currency notes. It is reported that, the corrupt people in Government administration, people with illegal business, black marketers, professionals like - private doctors, private hospitals, private educational institutions etc. continued to hoard black money immediately after demonetisation. These people again started floating their black money in commodity market, hotel business, land dealings and real estate.

It is also suggested that, to eradicate black money it is necessary to demonetize currency notes periodically. If not on regular intervals but at least in minimum once in five years. With the help of this economic tool, the Government can curb these unfair activities. It is suitable to take shelter of demonetisation to control illegal activities as our judicial system is already overburdened. It cannot handle these cases in a practical manner. Demonetisation has proved to be the best economic tool to control social and economic irregularities.

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DIGITAL EDUCATION IN INDIA WITH SPECIAL REFERENCE TO SWAYAM

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Abstract

'SWAYAM' launched on 9th July, 2017 by Shri Pranab Mukherjee developed by Ministry of Human Resource Development(MHRD) and All India Council for Technical Education(AICTE), Government of India with the help of Microsoft It was initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy. It aimed to benefit at least one crore students in 2 - 3 years. With the launch of SWAYAM India has become one of those few countries in the world how not only has its own online interactive platform that provides online video lectures and reading materials but also provides quiz/assignment that ends up scoring credits after completion of the course.

Keywords

SWAYAM : Study Webs of Active learning for young Aspiring Minds

ICT : Information and Communication Technology

MHRD : Ministry of Human Resource Development

NPTEL : National Programme on Technology Enhanced Learning

MOOC : Massive Open Online Courses

AICTE: All India Council for Technical Education

TEL : Technology Enhanced Learning

DTH : Direct To Home

GSAT : Geosynchronous Satellites

BISAG : Bhaskaracharya Space Application and Geo informatics

INFIBNET : Information and Library Network

UGC : University Grants Commission

NIPTEL : National Programme on Technology Enhanced Learning

1. Introduction

Education is the prime element in development of any country. In India, we face many challenges in the path of education such as quality education lacks in India. In such an environment SWAYAM the free online education was developed by MHRD, Government of India and AICTE with the help of Microsoft which offers hundreds of courses with transferable credits. All the courses offered here are free. Also certificates are awarded to the learners if they wish so with respect to some charges. SWAYAM was launched with a motive of benefiting 1 crore students all across the country within 2-3 years of its launch.

1.1 Digital Education

Digital education is education through the digital tools and technologies in the process of providing education. It is the modern technique of providing education which has a far reaching impact and a wide coverage of population. It is also known as technology enhanced learning (TEL) or E-learning. Digital education is a revolutionary method of imparting knowledge, since it provides the same platform to every student irrespective of some commonly affecting factors such as time, place, fees etc. The platform makes it very easy for the teachers to provide lessons to the pupil and manage them regardless of location. Digital technologies are electronic tools, systems, devices and resources that generate store or process data. Well known examples include social media, online games, multimedia and mobile phones. Digital learning is any type of learning that uses technology. It can happen across all curriculum learning areas.

We can bring information from all around the world to classrooms in the remotest areas, game based programs can actually engage kids into effective learning, regardless of age or content, students have more access to relevant and regularly updated content. Everyone gets the same information at the same time.

1.2 India's Digital Education System

Digital education is a revolutionary method of imparting knowledge, especially since it levels the playing field for all students. India is home to the largest population of children in the world, with an estimated 430 million children in the age group of 0-18 years in the country. Though digital education is still at its initial phase in India. It is actually bridging the gap between rural population and education. Since has it approx. 65% of its population in form of rural habitants, providing education into remote areas through traditional methods was quite difficult and time and wealth consuming. On the other hand, digital education has a far reaching impact and can cover the entire population of approx. 1.37 million.

1.3 SWAYAM

SWAYAM an online education portal launched on 9th July, 2017 by Shri Pranab Mukherjee which is web and mobile based with a tagline “□□□□□□ □□□□ □□□□ □□□□”. It provides online content and videos from class 9th to post graduation. It has a logo which contains mouse and books which is a symbol of modern means of education. SWAYAM stands for Study Webs of Active learning for Young Aspiring Minds. It provides an integrated platform using ICT (Information and Communication Technology). It provides high quality experience using multimedia on anytime anywhere basis.

SWAYAM seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

SWAYAM is based on a four Quadrant approach

- 1: E-tutorial (video lecture)
- 2: E-content (Reading)
- 3: Web Resources (Self-Assessment)
- 4: Self-Assessment (Online Discussion and doubt clarification)

1.4 SWAYAM Prabha

SWAYAM Prabha was launched by Shri Pranab Mukherjee on 9th July, 2017 along with the launch of SWAYAM. It is that part of SWAYAM where the videos are broadcasted on 32 DTH channels. The tag line says “Free DTH Channel for education” and has a logo of books and a DTH disk. It uses GSAT 15 satellite and broadcasts new content for 4 hours every day and it is repeated 5 times a day allowing the students to choose the time of their convenience. The channels are uplinked from BISAG, Gandhinagar. The contents are provided by NPTEL, IITs, UGC, CEC, IGNOU, NCERT and NIOS. The INFLIBNET Centre maintains the web portal. The SWAYAM PRABHA is a group of 32 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 satellite.

2 Research Methodologies

2.1 Objective

- To evaluate the basic concept of SWAYAM and SWAYAM Prabha and its impact on Indian population.
- To study in depth that how SWAYAM has changed the perspective of education industry from traditional to modern means.
- To spread awareness about SWAYAM to the pupil

2.2 Hypothesis

The learner has set the following hypotheses for the purpose of the study on the topic and finding relevant solutions to the subject.

H₁: SWAYAM lacks technical as well as practical awareness in pupil and teacher

H₀: Pupil and the teachers are well aware about SWAYAM and its operations

2.3 Scope

Through the medium of this study the learner wants to study various digital education technique especially SWAYAM and SWAYAM Prabha for development of pupils knowledge and learning a new perspective to learning. To study the various courses offered and the effectiveness of such courses available and its validity in the real world.

2.4 Significance

Collection of the data was a great experience. And hence following are the significance of the study.

1. Close study of the SWAYAM, its impact, the benefits of the digital education system , etc.

2. Appreciation of the work by the learner.
3. Spread of knowledge about SWAYAM and SWAYAM Prabha Helping the pupil to gain knowledge about the SWAYAM and applying for the various courses offered by SWAYAM.
4. Information Integrity, Reliability, and Validity

2.5 Limitations

1. Manpower
2. Funds
3. Geographical area
4. Time

One of the main limitations of the study is the survey was collected from a limited sample size from the pupil, teachers and some others related to the education industry in the region of Mumbai Suburbs through an online survey from a limited sample under study.

As compared to a number of pupils and teachers in Mumbai only a limited number of population is considered during the study and included in the questionnaire for the survey.

2.6 Selection of Problem

As India is a developing country and education is the prime factor to be taken care of by the government in such type of economy where the population of the country is high. As SWAYAM is one such solution which will sort many issues related to education in rural India and also makes education cheaper and convenient in terms of place, time, etc. It will also facilitate empowerment of youth. The learner was keen to know each and every part and parcel of the portal and hence decided to study the SWAYAM in depth by the medium of this study.

2.7 Sample Size

For the purpose of the study the learner has collected data from various primary sources. For the purpose, the learner has collected data by the medium of online interview of around 40 surveyors of which 13 are teachers belonging to various colleges and 17 are pupils and 10 are others.

2.8 Data Collection

1. Primary Data

Primary data was collected from 40 surveyors of which 13 are teachers belonging to various colleges and 17 are pupils and 10 are others and was then noted down and converted into charts and graphs for the purpose of presentation.

2. Secondary Data

Secondary data is collected from various available sources such as news paper articles, website of the Yojana, journals, etc.

3. Literature Review

SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged.

This is done through a platform that facilitates hosting of all the courses, taught in classrooms from Class 9 till post-graduation to be accessed by anyone, anywhere at any time. All the courses are interactive, prepared by the best teachers in the country and are available, free of cost to any learner. More than 1,000 specially chosen faculty and teachers from across the country have participated in preparing these courses.

Education is a prime element for the progress of any country. In India, there are several challenges to give quality education, such as quality education resources lack. A massive wave of scope has knocked the door of constructive education in the forms of MOOCs which stands for Massive Open Online Courses.

In distance education, MOOCs are of very recent origin, started somewhere in the mid of 2011. They are known as 'massive' because they are available for the masses. These courses are fully taken through online aimed at unlimited participation and open access via the web. 'Study Webs of Active Learning for Young Aspiring Minds' (SWAYAM) is a jointly initiated by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE), Government of India to provide an integral teaching learning platform in online mode. SWAYAM is mobile and web based interactive open education interface where

courses are found from high school to university level (Government of India, 2015). SWAYAM is designed to achieve the three primary principles of education policy such as, access, equity and quality. If digital devices like computers is included in the all schools, and institutions of India in future, the learners will be more benefited because they will get more quality of teaching from best institutions

The courses hosted on SWAYAM are in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Steps have been taken to enrich the learning experience by using audio-video and multi-media and state of the art pedagogy / technology.

3.1 How to apply for courses on SWAYAM

For becoming a SWAYAM learner, one has to register first. They can follow the given instructions-

- Visit SWAYAM portal i.e. www.swayam.gov.in
- They need to click “Register” button provided on the top of the homepage.
- Now learners have to login. They can login with their social media login (facebook, Google or Microsoft) or they can log in by clicking the “sign up now” option.
- On clicking the sign up now link, the given page will appear. Learners now have to provide all the details to create the account.
- A verification code will be sent to the email ID and they have to click on “Create” button after the entering the names in the required fields.
- Learner’s account on SWAYAM will be created finally.
- Enrolment of Course and Registration using SWAYM local ID, Facebook, Google and Live ID
- Consume Course Contents (Videos, Articles, Uploaded Files)
- Submit Assignments & Take Course Tests; initiate and follow Discussions;
- Apply for Examination (online payment via PayGov or CCAvenue)
- Download Completion Certificate

3.2 List of courses

Courses under SWAYAM would be available in the following levels:

- a) Out of School Children Educational Programs from Classes 9th to 12th (NC- NIOS)
- b) School Educational Programs from Classes 9th to 12th (NC-NCERT)
- c) Diplomas and Certificates Programs (NC-IGNOU)
- d) Non-Technology Under Graduate Degree Programs (NC-CEC)
- e) Non-Technology Post Graduate Degree Programmes (NC-UGC)
- f) Technical/Engineering UG and PG Degree Programs (NC-NPTEL)
- g) Management Programs (NC-IIM Bangalore)
- h) Teacher Training Programs (NC-NITTR, Chennai)
- i) All courses that do not fall in the purview of any of the above Eight (8) NCs including foreign university courses (NC- AICTE, New Delhi)

3.3 List of Universities

In order to ensure that best quality content is produced and delivered, nine National Coordinators have been appointed. They are:

- AICTE (All India Council for Technical Education) for self-paced and international courses
- NPTEL (National Programme on Technology Enhanced Learning) for Engineering
- UGC (University Grants Commission) for non technical post-graduation education
- CEC (Consortium for Educational Communication) for under-graduate education
- NCERT (National Council of Educational Research and Training) for school education

- NIOS (National Institute of Open Schooling) for school education
- IGNOU (Indira Gandhi National Open University) for out-of-school students
- IIMB (Indian Institute of Management, Bangalore) for management studies
- NITTTR (National Institute of Technical Teachers Training and Research) for Teacher Training programme

Courses delivered through SWAYAM are available free of cost to the learners, however learners wanting a SWAYAM certificate should register for the final proctored exams that come at a fee and attend in-person at designated centres on specified dates. Eligibility for the certificate will be announced on the course page and learners will get certificates only if this criteria is matched. Universities/colleges approving credit transfer for these courses can use the marks/certificate obtained in these courses for the same.

3.4 Scope of SWAYAM

The SWAYAM shall cover the following:

- Curriculum based course contents covering diverse disciplines such as arts, science, commerce, performing arts, social sciences and humanities, engineering, technology, law, medicine, agriculture etc. in higher education domain (all courses to be certification-ready).
- School education (9-12 levels) modules; for teacher training as well as teaching and learning aids to learners to help them understand the subjects better and also to help them in better preparedness for competitive examinations for admissions to professional degree programmes.
- Skill based courses, which cover both post-higher secondary school skills that are presently the domain of polytechnics as well as industrial skills certified by the sector skill councils of various Ministries.
- Advanced curriculum and professional certification under a unified scheme in higher education domain that can be tailored to meet the demands of Choice Based Credit System (CBCS) currently being implemented in India at under graduate level.
- Curricula and courses that can meet the needs of life-long learners.
- Independent courses which may not be part of any set curriculum and may be taught as awareness courses, continuing education programme and for training of specific skill sets.

4. Data Analysis

For the purpose of collection data the learner has used Zoho Survey Portal for creation of survey and getting it filled online. After creating the survey the link was texted through various social media to the contacts. And for the presentation of data microsoft excel features is use to create the graphs, charts, tabulation, etc.

Survey Link: <https://survey.zohopublic.com/zs/ngBU7T>.

Q.1 Full name

All 40 interviewers have answered to this question.

Q.2 Surveyor Category

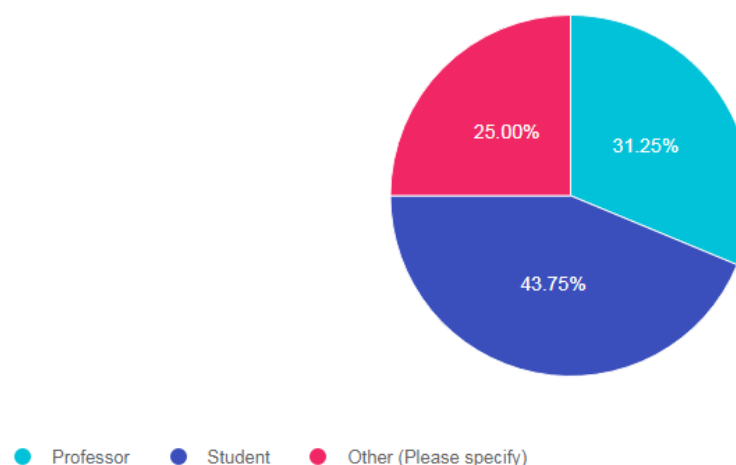


Diagram 3.1: Surveyor Category

Option	Percentage of Respondents	Number of respondents
Professor	31%	13
Student	44%	17
Other	25%	10
Total	100%	40

Table 3.1 Surveyor Category

Q.3 Have you heard about the term digital education

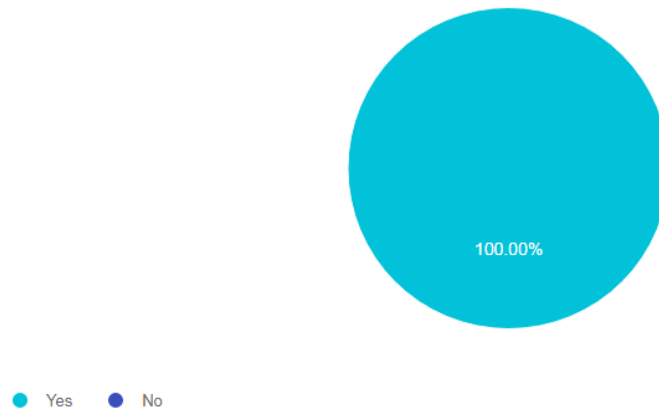


Diagram 3.2: Have you heard about the term digital education

Option	Percentage of Respondents	Number of respondents
Yes	100%	40
No	0%	0
Total	100%	40

Table 3.2: Have you heard about the term digital education

Q.4 If yes, which online portals have you are familiar with

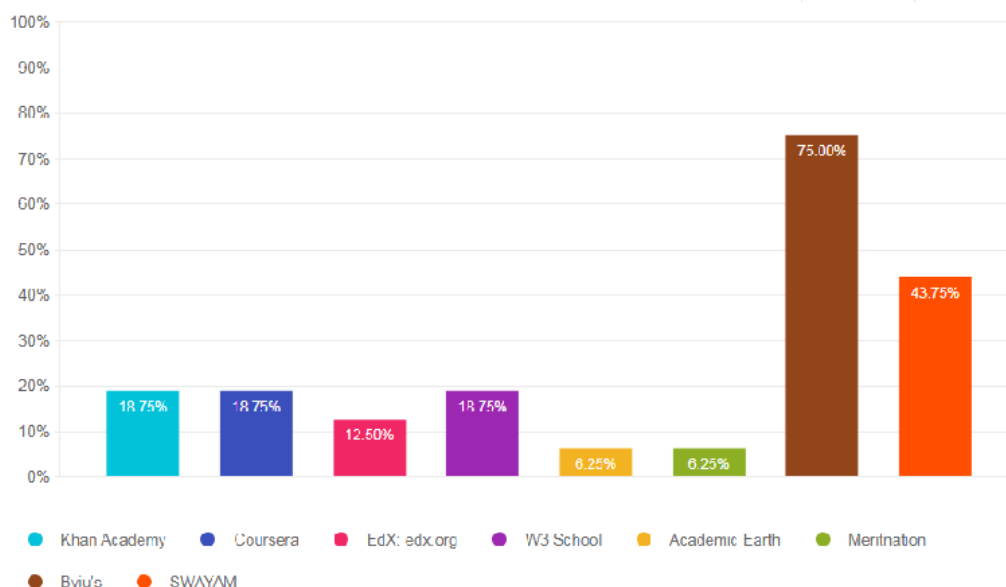


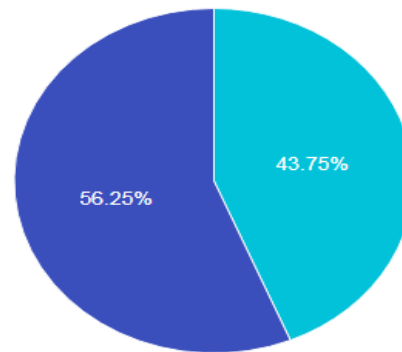
Diagram 3.3: If yes, which online portals have you are familiar with

Option	Percentage of Respondents	Number of respondents
Khan Academy	18.75%	8
Coursera	18.75%	8
EdX: edx.org	12.50%	5
W3 School	18.75%	8
Academic Earth	6.25%	3

Meritnation	6.25%	3
Byju's	75.00%	30
SWAYAM	43.75%	18
Total	200.00%	40

Table 3.3: If yes, which online portals have you are familiar with

Q.5 Are you informed about the online portal SWAYAM



● Yes ● No

Diagram 3.4: Are you informed about the online portal SWAYAM

Option	Percentage of Respondents	Number of respondents
Yes	43.75%	18
No	56.25%	23
Total	100.00%	40

Table 3.4: Are you informed about the online portal SWAYAM

Q. 6 If yes, from what source

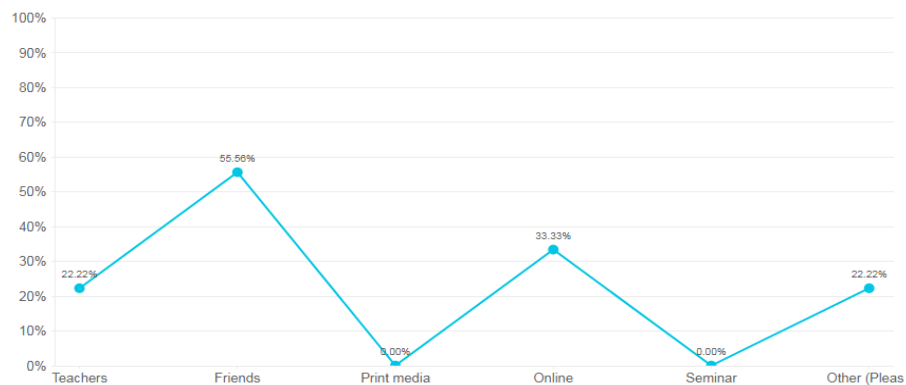


Diagram 3.5: If yes, from what source

Option	Percentage of Respondents	Number of respondents
Teacher	22.22%	9
Friends	55.56%	22
Print Media	0.00%	0
Online	33.33%	13
Seminar	0.00%	0
Others	22.22%	9
Total	133.33%	40

Q.7 If offered, what courses will you prefer to study on SWAYAM

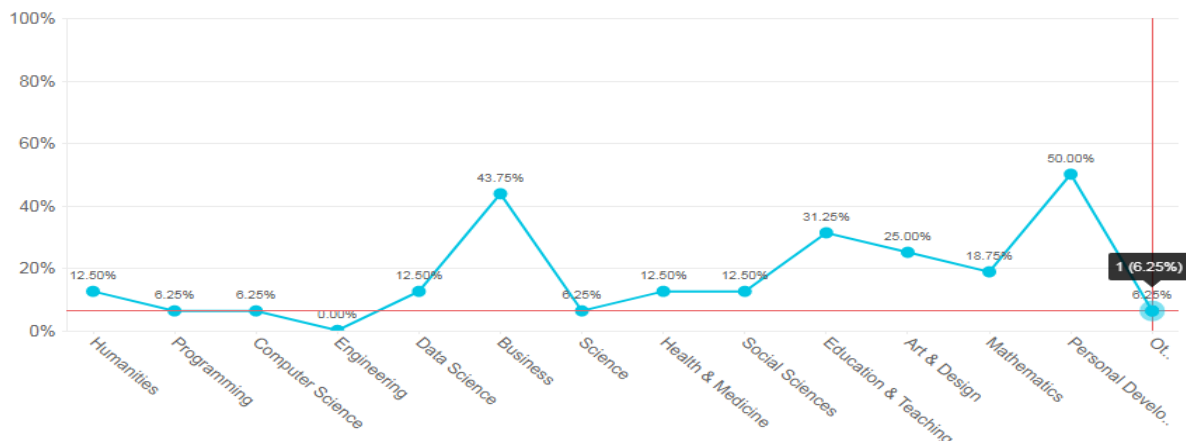


Diagram 3.6: If offered, what courses will you prefer to study on SWAYAM

Option	Percentage of Respondents	Number of respondents
Humanities	12.50%	5
Programming	6.25%	3
Computer Science	6.25%	3
Engineering	0.00%	0
Data Science	12.50%	5
Business	43.75%	18
Science	6.25%	3
Health & Medicine	0.00%	0
Social Sciences	12.50%	5
Education & Teaching	31.25%	13
Art & Design	25.00%	10
Mathematics	18.75%	8
Personal Development	50.00%	20
Others	6.25%	3
Total	231.25%	40

Table 3.6: If offered, what courses will you prefer to study on SWAYAM

Q.8 How will you rate SWAYAM

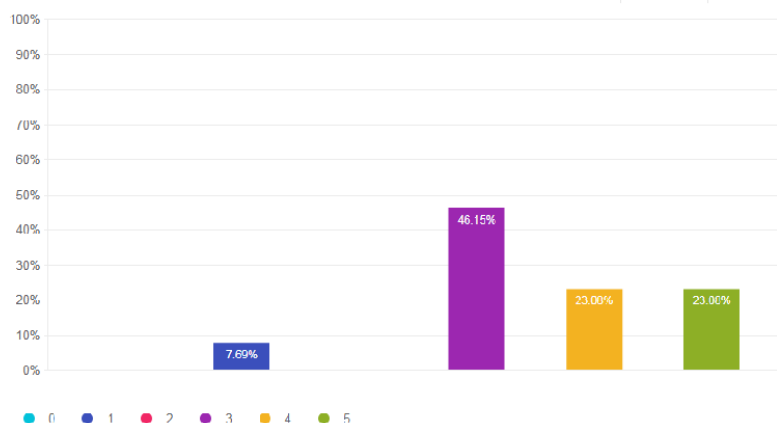


Diagram 3.7: How will you rate SWAYAM

Option	Percentage of Respondents	Number of respondents
0 (no rating)	0.00%	0
1	7.69%	3
2	0.00%	0
3	46.15%	18
4	23.08%	9
5 (great efforts)	23.08%	9
Total	100.00%	40

Diagram 3.7: How will you rate SWAYAM

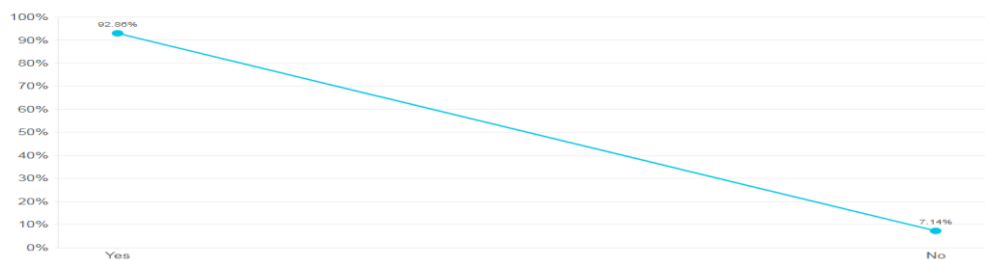
Q.9 In your view is SWAYAM helpful to Indian population

Diagram 3.8: In your view is SWAYAM helpful to Indian population

Option	Percentage of Respondents	Number of respondents
Yes	92.86%	37
No	7.14%	3
Total	100.00%	40

Table 3.8: In your view is SWAYAM helpful to Indian population

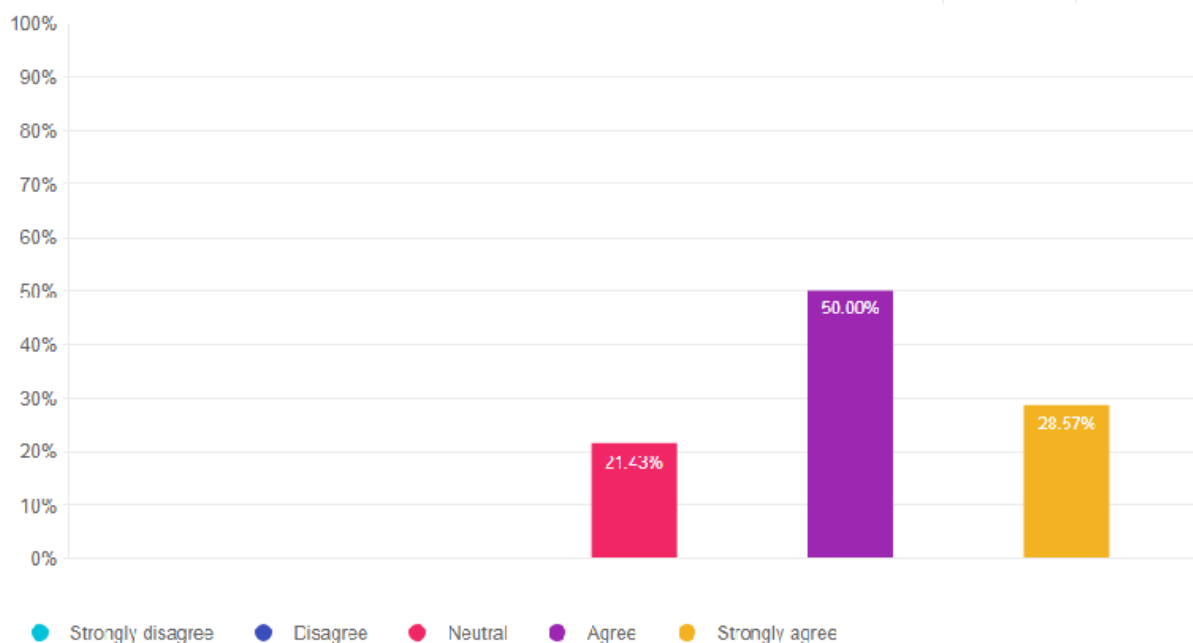
Q.10 SWAYAM gives High Quality learning experience using multimedia on anytime, anywhere basis

Diagram 3.9: SWAYAM gives High Quality learning experience using multimedia on anytime, anywhere basis

Option	Percentage of Respondents	Number of respondents
Strongly Agree	0.00%	0

Agree	0.00%	0
Neutral	21.43%	9
Disagree	50.00%	20
Strongly Disagree	28.57%	11
Total	100.00%	40

Table 3.9: SWAYAM gives High Quality learning experience using multimedia on anytime, anywhere basis

5. Conclusion and Recommendations

5.1 Conclusion

SWAYAM launched by Ministry of Human Resource Development in collaboration with AICTE on 9th July, 2017 was one of the great efforts by the Government of India in its kind which made India one of those few countries which has its own online education portal which provides free video access to all the courses offered and also provides certification to the same. In Country like India with such huge population providing education to each and all without any discrimination is not so easy to achieve but we have achieved. Though SWAYAM being a great effort the learner through the study finds that SWAYAM lacks awareness. Much population of the nation is not aware about such portal being existing. Through the data analysis the learner concludes that Hypothesis H_1 : H_1 : **SWAYAM lacks technical as well as practical awareness in pupil and teacher** is selected

5.2 Recommendations

The learner also thinks that along with free online education the pupils should also be provided practical internships. And also such internships should be made mandatory for the students to gain the credits of the course and certification. Such internship will give that such practical knowledge which will be helpful to the in real world and also will be accounted as their experience. Also it will make them self sufficient and will create a sense of responsibility in them.

Also as we know, true knowledge is not the theoretical one but the one in which theoretical as well as practical knowledge is gained. Where the pupil know where to apply that theory which he had studied. Also more of such courses should be offered where more knowledge based education is give.

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CHALLENGES TO WOMEN EMPOWERMENT IN INDIA AND THE WAY FORWARD

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Empowerment of women means to let women live their life freely with a sense of self-worth, respect and dignity to give them their due rights and shares in the society by the virtue of being human being to let them make their own choice, have equal rights to participate in social religious and public spheres, get safe and comfortable working environment.

Women across the world have suffered historical injustice in different forms and degree. They were treated as second race they were not entitled to voting rights their opinion was not given any importance for a long time. Even the great scholars like Aristotle did not gave citizenship status to women they were confined to four walls of the house scholars like J.S. Mill expressed have pointed the subordinate status of women in his essay "The subjection of women" he held that all forms of slavery has ended except one that is, slavery of women. In India there were many practices derogatory to status of women like female foeticide, child marriage, dowry system, domestic violence sati jauhar etc to address all these problems of women, the concept of women empowerment came into place. 19th century marks the beginning of women's movement in the western countries and the rise of question on women in the east. The French Revolution was instrumental in unleashing the forces of change in several western countries. women's issue became prominent and the first issue that came were the issue of slavery and the issue of suffrage these were the two main problems which led to the upsurge of consciousness amongst women in India the social reformers inspired by the golden past and the liberal west started the process of reforms of religion and society along with that of women's condition Several Feminist scholar and Social Reformer like Mary Wollstonecraft, Suffragettes, Simone de Beauvoir, Betty Friedan, philosophers like J.S. Mill and thoughts of Plato, and reformers like Raja Ram Mohan Roy, Ishwar Chandra Vidya Sagar Jyotiba Phule, Mahatma Gandhi, Pandita Ramabai, Anandi Bai Joshi, Sabitri Bai Phule, strongly advocated for women empowerment.

Women empowerment is a multidimensional which seeks to help women realise their full potential and help women fight both internal and external impediments as many women for having suffered historical injustice have become conditioned to their inferior status and started to consider their inferior position as their bad fate or their duty or their responsibility. Several movements and campaigns taken out like Me Too Movement, He for She campaign, Time is up etc.

Indian government has passed many specific laws for women that protect them from sati dowry sexual harassment child marriage indecent representation of women domestic violence and aaspecific government schemes including national commission for women and access to equal share in property, equal remuneration and maternity benefits etc.

Women are making great strides almost everywhere whether it is corporate world, sports or politics women are grabbing the headline and are doing much better than they were doing before. But still a lot needs to be done because we take a look at statistics very different story emerges. One that suggests that equality is still elusive India is tough place for women even before they are born. Several cases of female foeticide are reported and our sex ratio is 943 to 1000 which is lower than many under other developing countries. According to National Crime Record Bureau over 34000 cases of rapes are reported every year that means 93 rapes a day 4 rapes an hour a rape a rape every 15 minute and these are only reported rape. Marital rape is still not recognised and there are many cases of unreported rape all this makes India the fourth most dangerous country for women according to survey conducted by Thomson Reuters Trustlaw women, a hub of legal information and legal support for women's rights. Several cases of heinous crimes like acid attacks Dowry related deaths, sexual harassment are growing at an alarming rate. However, the positive side is that we can now see the veil of silence around sexual abuses lifting in India.

Many stringent laws against such crimes has failed deter the perpetrators which indicates that law alone is not enough to protect the women from violence civil society in its enlightened form has to come in rescue of women. All the institutions together should embark on a journey to elevate the status of women. Women forms around 48% of the world population and world cannot expect to head on path of development by neglecting half of its race.

The most important challenge in way of women empowerment is that women themselves have become the most vociferous defender of patriarchy which is so widely practiced that it has attained the status of common sense however to quote J.S.Mill who says “just because it is universal that does not mean it is natural or desirable”.

Another important challenge is that the focus is mostly laid on economic empowerment and does not emphasize on political empowerment of women. However empowerment of women in all spheres should go simultaneously because empowerment in one sphere and neglect of other will create an imbalance which will defeat the whole idea of empowerment.

Again a patriarchal society ruled by the self-proclaimed caste lords who are the guardians of archaic and unjust traditions. They put the burden of traditions; discrimination against the girl child begins from the birth itself. Boys are preferred over girls; hence, female infanticide is a common practice in India. The ordeal that an Indian girl faces at birth is only the beginning of a lifelong struggle to be seen and heard.

Implementation gaps: through all these years, the attention is only on developing and devising the new schemes, policies and programmes and has paid less attention to the proper monitoring system and implementation of existing laws.

Loopholes in the legal structure: although there are a number of laws to protect women against all sorts of violence yet violence against women are growing at an alarming rate. This is due to delay in legal procedures and the presence of several loopholes in the functioning of judicial system.

Lack of political will: the still pending women's Reservation Bill underscores the lack of political will to empower women politically. Prevailing male dominance in the Indian politics forces women to remain as mute spectators.

To conclude, it would be wrong to believe that Patriarchy always enforces itself on women it also does on men. coz they have to live up to the standard of providing for the family etc the Not only women but there are many myths surrounding men like men are strong they cannot cry they shall not complain much and handle all the situations bravely etc. There is need to liberate even men from their responsibilities of protecting women they should operate in an environment of peace and freedom. Free from all myths and glass ceilings where people's existence should be given priority over their essence.

Women should not be put under observation constantly they should be given free and safe environment which they rightly deserves. There is a need to deconstruct and reconstruct the actual teachings in our scriptures which sometimes manufacture consent of people in favour of man. Let them live in their own terms to grow in their own comfortable pace. Girls should not be seen in reference to boys let them create their own identity and history.

It's not that men wants to resent to accommodate women it's just that men has not understood or they have understood wrongly. As Meghan Markel has rightly said that Women Empowerment is not about helping women find their voice, she states that women do have voice people needs to be encouraged to listen and understand it in right sense. We should stop pitting women against men the relation between man women should be of cooperation and coordination rather than competition. Empowerment of women is prerequisite for the development of the world. Women forms around 50 % of the world population world cannot expect to head towards the path of development by neglecting half of its race.

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AN EMPIRICAL STUDY TO UNVEIL DIGITAL FOOTPRINT COGNIZANCE AMONG INTERNET USERS

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ABSTRACT

Digital footprint is a permanent impression etched as online record while using digital communication medium. Digital channel retains whatever is sent through it. It means that if some content is forwarded from a source to destination, essentially entire data about who forwarded this data, to whom, what was the content, date, time, IP addresses etc. is retained permanently on one or other enroute server. While moving around in the cyber space, all the movements are tracked and recorded which could be later on used for doing data analysis. This analysis is further bought by firms involved in targeted marketing so as to be able to send appropriate offers to perfect personal. But how secured is our digital footprints with the people accessing it or our privacy is not compromised by the apps we have trusted our data with are few of the important questions that are addressed in the research paper.

Keywords: digital platform, Internet, apps, online platforms, digital footprints

REVIEW OF LITERATURE

(A.R. Arakerimath, 2015) stated that a digital footprint [1] can be anything that you share directly or indirectly online whether it is a simple text, image, audio, video etc. anything which is traceable back to you. In fact, the data that is ever put up on cyber space also has its imprint that lasts there forever. Knowingly or unknowingly this stream of data is traced by companies who use it for various purposes in Fig. 1 we can see different ways through digital footprint comes into life and how it is processed and utilized.

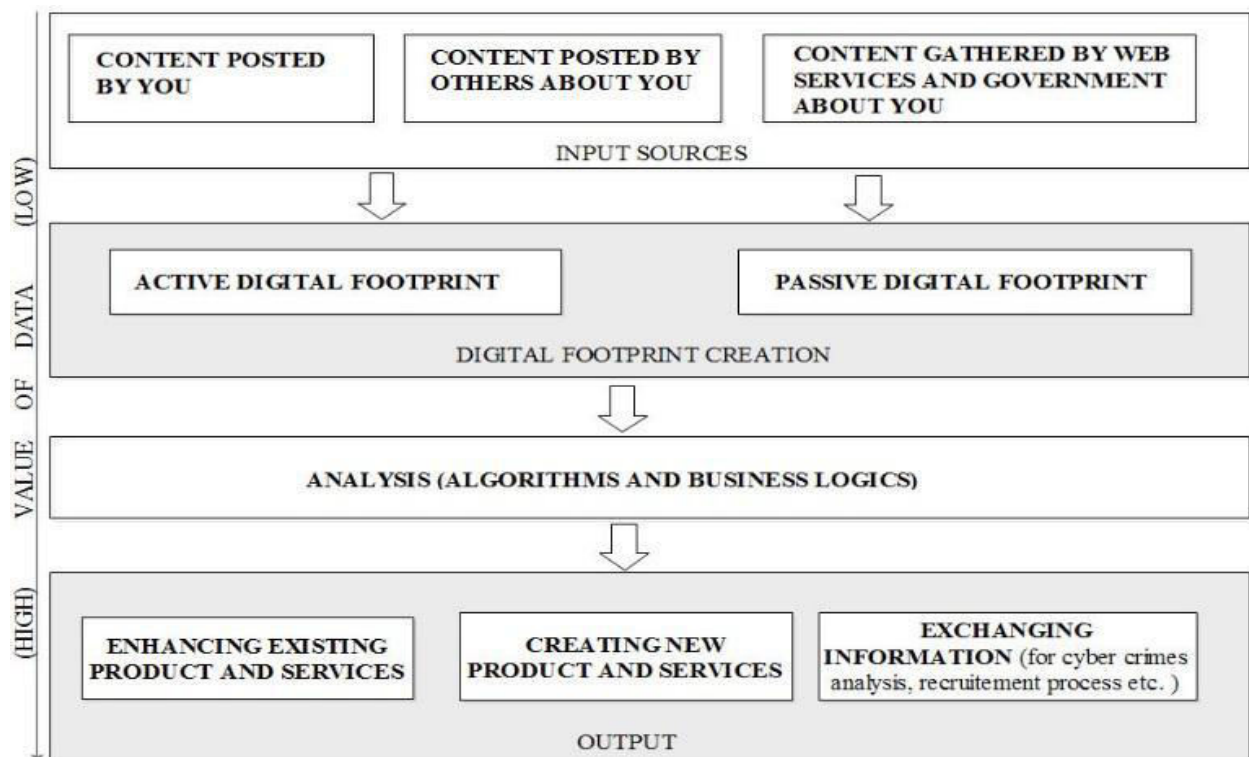


Fig1. Digital Footprint Creation (A. R. Arakerimath, 2015)

Digital footprints [2] are created in two ways: passively and actively. When data collection is done without user knowing it is called a passive footprint. Usually cookies are fantastic means of collecting data from user with taking their permission explicitly. History of user browsing is another popular way of identify the trail of websites visited by him/her.

When data is collected purposefully by asking to fill up a questionnaire or form it is termed as active digital footprint. Taking up a poll, using digital media to publish email, posting on Facebook wall are few of the examples that contributes to making active footprint.

Digital footprints were used [3] for determining an activity conducted by an institution or individual in an online environment before. With the advent of latest technology, there are many means to track minutest details of online action taken by user, which can later be used further as per the need.

This research strategy [4] is not new. Lots of years are spent in identifying social and behavioral data and is used to organization's membership lists, companies tracing the purchases of consumers thus trying to identify what is the need of the consumer that has been left unanswered by the company or further needs of the consumer and banks collect massive data from credit card transactions thus increasing/ decreasing credit limits of the customer.

DATA ANALYSIS

Data analysis is done on 50 respondents whose age lied between 11 to 51 and above. The table given below shows demographic distribution of subject according to their age that also signifies the equal opportunity being given to age group of 11 to 50 years (&above). All of them are using Internet and various applications in some or the other form, may be social media or some apps.

Table-1: Showing distribution of Subjects according to age

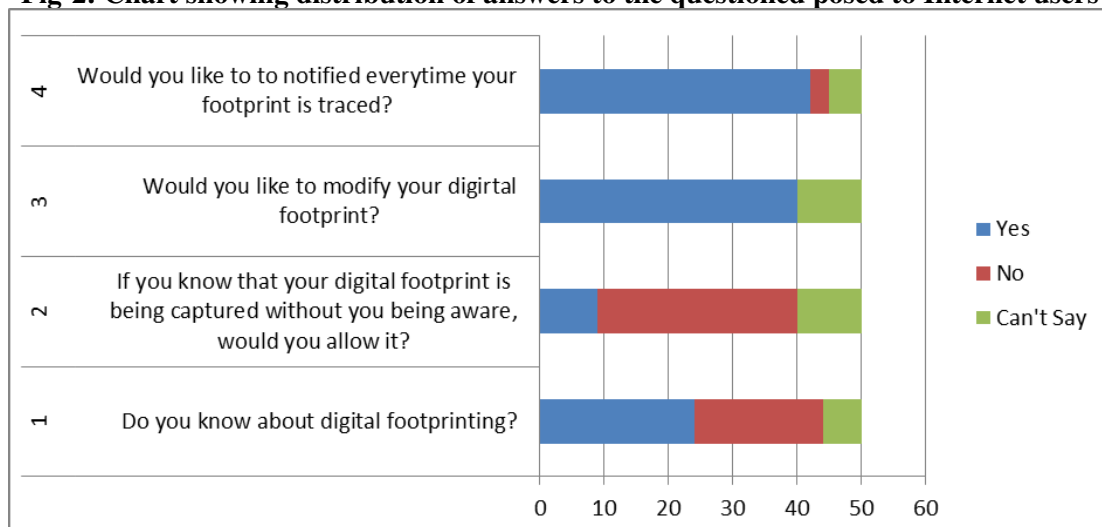
Age	Count of respondents
<10 years	0
Between 11-20 years	10
Between 21-30 years	10
Between 31- 40 years	10
Between 41- 50 years	10
>51 years	10

Table-2: (Source- Field Survey)

Q. NO	Question	Yes	%	No	%	Can't Say	%
1	Do you know about digital foot printing?	24	48	20	40	6	12
2	If you know that your digital footprint is being captured without you being aware, would you allow it?	9	18	31	62	10	20
3	Would you like to modify your digital footprint?	40	80	0	0	10	20
4	Would you like to notify every time your footprint is traced?	42	84	3	6	5	10

The table above shows count and percentage of people who are aware of digital foot printing happening. Less than 50 percent of people know the concept of digital foot printing and only 18 percent of people say that that they will allow foot printing to happen without their knowledge. It might be deduced from this statistics that people are stringent about their privacy being hampered. Also majority i.e. 84percent of subjects said that they will appreciate if they are notified whenever they are tracked and would like to know about what is being traced about them. Its very unfortunate but true that digital imprints once established cannot be modified but more than 75 percent of the respondents wanted to modify it if given chance. Figure 2 below show the tabular data in the form of a chart that shows distribution of answers given by subjects to various questions asked.

Fig-2: Chart showing distribution of answers to the questioned posed to Internet users



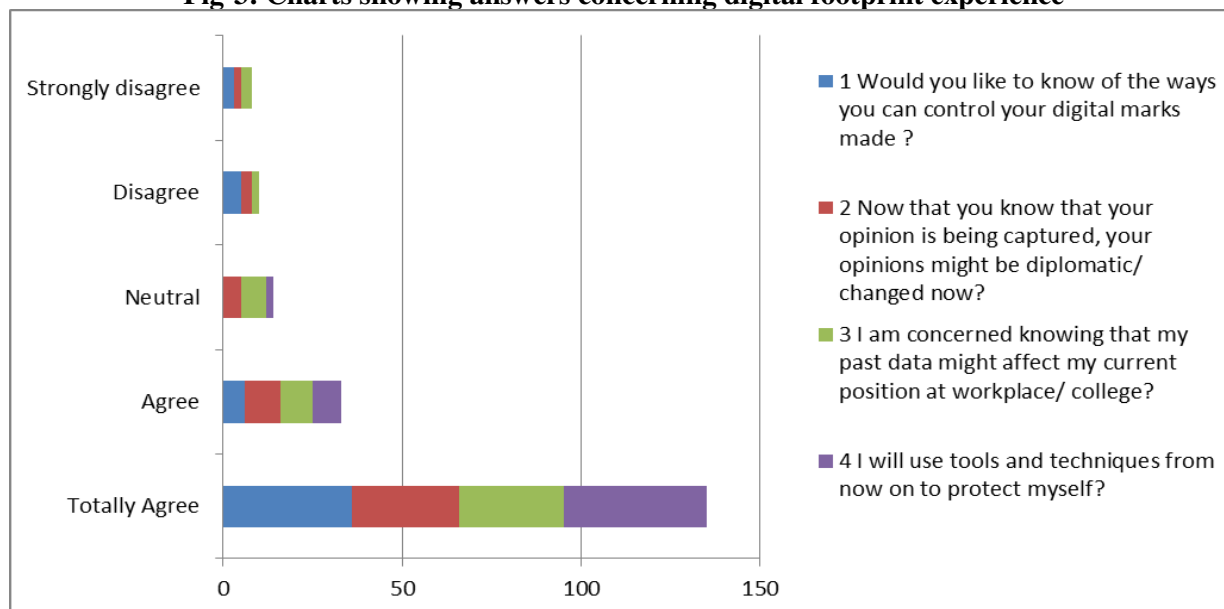
Content of Table3 depicts that once awareness is there, 36 respondents out of 50 strongly agreed wanted to know the ways to control their digital imprints from being taken. Also, it was found out in field survey that many respondents, close to 30 would like to stay diplomatic or neutral now that they know their opinions will be captured forever. Also, people don't know that once a digital imprint is taken, it cannot be modified and hence might impact personal or professional life at some point of time. Once, subjects knew about digital footprint (both explicit and implicit) can be curtailed through some or the other way, 80 percent of them strongly agreed to try it.

Whatever the way but it looks quite important to make people know that digital foot print s are been taken even when they are not aware. In fact, single click also generate data that's been captured and analysis for better purposes. As forewarned is forearmed, User should be informed about what happens in the digital world so that they can also keep up changing times.

Table-3: (Source- Field Survey)

Q.N.	Question	Totally Agree	Agree	Neutral	Disagree	Strongly disagree
1	Would you like to know of the ways you can control your digital marks made?	36	6	0	5	3
2	Now that you know that your opinion is being captured, your opinions might be diplomatic/ changed now?	30	10	5	3	2
3	I am concerned knowing that my past data might affect my current position at workplace/ college?	29	9	7	2	3
4	I will use tools and techniques from now on to protect myself?	40	8	2	0	0

Fig-3: Charts showing answers concerning digital footprint experience



CONCLUSION

Explicit or implicit data collection is done by digital analytical software like Google analytics, which is further used to identify a pattern or trend. This trend once identified is extensively used by various online platforms for targeted digital marketing. Laptops, cell phones, desktops, social forums are the possible sources of accumulating the trail left behind by constant browsing of Internet. This browsing pattern is stored and is used to show similar product on apps, friend request on FB, advanced gadgets than your previous purchases. Most of Internet users don't bother while letting access to our cameras, contact lists and photo galleries that should be understood. Malicious intent with respect to our data might not be judged by all. Awareness along with knowing the steps/tools needed to curb data from being hunted down should be exercised by used; this will refrain data from being unknowingly sucked up by tools for further analysis.

A general awareness about digital footprinting will enable user to be in more control of data that he/she is sharing intentionally or unintentionally. Huge country like India where silos of data is generated every other second should shoulder campaigns to educate Internet users about how and why it's done.

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AGRO-TOURISM: OPPORTUNITIES & CHALLENGES FOR FARMERS IN AURANGABAD DISTRICT

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INTRODUCTION

In 1943, the world's worst recorded food disaster occurred in British-ruled India. Around 4 million people died of hunger that year in eastern India. When the British left India in 1947, India continued to be haunted by these memories. It was therefore natural that food security was one of the main items on free India's agenda. This awareness led, on one hand, to the Green Revolution in India. The Green Revolution, spreading over the period from 1967/68 to 1977/78, changed India's status from a food-deficient country to one of the world's leading agricultural nations. And today India known as Agronomical Country. Around 70% -80% people were dependent on agriculture for their livelihood.

After the green revolution, 3rd stage of Industrial Revolution took place. The industrial sector in India had started growing rapidly. Many people started shifting their profession from farming to industrial workers. This scenario is still continuing. Due to less water fall, increasing temperature, weather changes and availability of wide industrial sector, today's youth is getting attracted towards urban profession & life.

This same scenario is with the Aurangabad district. Aurangabad comes in Marathwada Region of Maharashtra State, which is known as Drought- Prone and Backward Region. From last decade, the region is facing savior drought, which has affected life of thousands of farmers and their families.

Several countries have transformed their economies by developing their tourism potential. Tourism has great capacity to generate large-scale employment and additional income sources to the skilled and unskilled. Today the concept of traditional tourism has been changed. Some new areas of the tourism have been emerged like

AGRO-TOURISM

Agro-tourism is an innovative agricultural activity related to tourism and agriculture both. It has a great capacity to create additional source of income and employment opportunities to the farmers. Aurangabad is one of the major tourist centers in the India and there is large scope and great potential to develop agro-tourism in this area. There is no gate way nearby Aurangabad, where people can go and have a break from their busy lives. In Aurangabad district, there is abundant production of Jawar, Sweet Corn and fruits like Guava, berries etc., so farmers have huge scope to attract people towards their farms and can earn sound extra income.

In agro-tourism, farmers provide fresh jawar which is called 'Hurda' in local language, which is very famous food item in the region along with sweet corns, seasonal fruits and some special local food items. In last 4-5 years this industry has growing at a rapid speed. People are liking this kind of agricultural outings very much. They have get-to-gathers, kitty parties, and birthday parties at such places. This concept helps to keep children aware about the farm life, farm animal and the local foods. The agro-tourism also keeps all family members away from media & technology for some time and has good time with family & friends, which helps in maintaining the social balance.

CONCEPT

The concept of tourism in many countries is changing. Till now, there was an economic potential and could think about tourism and this concept is now changing and has got a new look and Maharashtra State Agricultural and Rural Tourism Co-operative Federation Limited (MART) has taken an initiative for this. Agricultural tourism is a farm tour, identity of our culture, clean joy.

To reduce the daily stresses of urban life, many citizens prefer agriculture tourism. Keeping in mind both education and entertainment, they are attracted to agricultural tourism.

Agro-Tourism is the Holidays concept of Visiting a working farm or any agricultural, horticultural, or agribusiness operations for the purpose of enjoyment in the activities of the farm or operation.

OBJECTIVES:

- To examine the importance of agro-tourism development in Aurangabad District
- To study the benefits of agro tourism industry to the farmers & communities in Aurangabad District
- To study the Issues & challenges of the agro-tourism industry in Aurangabad District

RESEARCH METHODOLOGY

This research study is based on secondary data which is composed through study of various articles, journals and government web site.

IMPORTANCE OF AGRICULTURE TOURISM

The agricultural tourism offers a platform to people, where they can spend a relax day out with their family & friends in this busy life. The education has completely included the technology courses to a more extended and in this way children will grow without any sort of knowledge regarding the farm animals or farm life. Hence, tourism in Agriculture will give an opportunity to the children to learn about the farm culture. The agricultural tourism will allow the farmers to sell the vegetables or any other products grown on the farm to the tourists or visitors. This would again be a source of income to the farmers.

BENEFITS OF AGRICULTURE TOURISM FOR THE FARMERS

- This would give extra source of income to the farmers.
- There would be increase in overall revenues of the farming.
- This would give a chance to the farmers to expand the operations of farming.
- This will give a chance to the farmers for marketing of products which they produce.
- The living conditions of the farmers will improve, which will result in their development.
- The skills of management and the spirit of entrepreneurship will be improved.

BENEFITS OF AGRICULTURE TOURISM FOR THE COMMUNITIES

- It generates supplementary income for the local businesses as they need to provide services for visitors or tourists.
- There would be an upgrade in the facilities of the communities for the sake of tourists.
- There would be an improvement in the protection of the landscapes in the rural areas as it needs to serve the tourists.
- The traditions which are followed locally in terms of art and craft will be preserved as they will have an opportunity to create markets if tourism is developed.
- This promotes inter-regional and intercultural communication.
- There would be an increase in the awareness about the issues related to agriculture and also the values followed.
- The local products and services which are part of agriculture can be promoted.
- The rural economy can be strengthened which would create income through jobs.

SERVICES/ACTIVITIES OF AGRICULTURE TOURISM

- Outdoor Activities.
 - Bullock cart Rides
 - Horse Riding
 - Camel ride
 - Kabaddi
 - Langadi
 - Bullock ploughing
 - Watching the animals which are grown in the farm for domestic use
 - Fishing in rivers or lakes or ponds
 - Camping/picnicking (combined)
 - Rides in Jeep
 - Rural area games

- Riding Motorcycles on the off road
- Silk formation can be viewed
- Entertainment in the form of festivals of harvest etc.
- Services of hospitality which includes stays in the farm, guides for the tourists etc.
- Sales of the farm products directly

ISSUES & CHALLENGES OF THE AGRO-TOURISM

- Lack of perfect knowledge about the agro-tourism
- Weak communication skill and lack of commercial approach of the small farmers
- Lack of capital to develop basic infrastructure for the agro-tourism
- Ignorance of the farmers regarding to the such type of activities
- Lack of Motivation, Confidence & Morale among the farmers
- Ensuring hygiene and basic requirements considering urban visitors
- Maximum farmers have small size holding, low quality land and little or no access to credit or irrigation.
- Aurangabad district is consistently drought prone from last decade
- Less education and less marketing orientation of farmers,

KEY TECHNIQUES FOR SUCCESS IN AGRO-TOURISM

Agro-Tourism is a one of the business activities. So, farmers must have commercial mindset and some marketing techniques for the success. For the better success in the agro-tourism farmers should follow the following things;

- Give a wide publicity of your tourism center by new papers, pomplets, radio channels etc. Use all possible advertisement means.
- Develop contacts with the schools, colleges, NGOs, clubs, unions, organisations etc.
- Train your staff or family members for reception and hospitality
- Understand about the customers wants and their expectations and serve accordingly
- Charge optimum rent and charges for the facilities/services on the commercial base
- Do the use of local resources for the entertain / serve to tourist
- Develop your website and update time to time for attract foreign tourist
- Take their feedback and comments about the service and suggestions to more development and modification
- Develop a good relationship with the tourist for future business and chain publicity
- Develop different agro-tour packages of for different type of tourist and their expectations.
- Preserve an address book and comments of the visited tourists for future tourism business
- Behave sincerely with the tourists and participate with them
- Small farmers can develop their agro-tourism centers on the basis of cooperative society.

CONCLUSIONS

Agro-tourism is a great avenue for farmers in the region for their socio-economic development. This industry has lot of scope and potential in the area as there is no gateway nearby Aurangabad for the people living a hectic and stressful life. This will help to strengthen the farmer fraternity financially as well as mentally and hence will also help to reduce farmer suicide ratio in the region.

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DIGITAL CHILDHOOD: ELECTRONIC MEDIA AND TECHNOLOGY USE AMONG TODDLERS

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INTRODUCTION

Today we have to call childhood as Digital Childhood because as a newborn comes in this world he is surrounded with the Technology. Parents snap their newborn and upload on Social Media and here the journey of media & technology starts!

Once the child completes age one, parents start taking help of phones or other media to feed their young ones. Parents want to show case their children as the most intelligent, active and superior in the society. When a Toddler is enrolled in a play school at the age of 2-3, he is already educated about rhymes, colours, numbers, different fruits & vegetables by the parents. What is the need of this? Actually they learn all this at their appropriate age, but today's parents are in such a hurry to educate them everything, that we forget that they are too young. And here we give them a digital childhood looped with gadgets.

Nowadays very young children are able to operate phones, Tabs, I-pads, laptops, video games, Play Station etc. so easily. They are so friendly with the gadgets that they can easily access all function and features of gadgets. Even they teach many new things to their parents & grandparents. We wonder and feel proud too, that how these young chaps know so much! But this is where we go wrong! Here the parents start the competition i.e. comparing their children with others! Parents just want to showcase that their children are the brightest and brainiest than other kids. Actually this is the competition among the parents, but they use their children to win this battle of superiority.

OBJECTIVES OF THE STUDY

- ❖ To study different types of Electronic Media which can be used by the Toddlers
- ❖ To study the time span toddlers spend on gadgets.
- ❖ To analyze the advantages & disadvantages of electronic media & technology on toddlers.
- ❖ To study, whether use of electronic media & technology increases learning among toddlers.

RESEARCH METHODOLOGY

This research is done to study the effect of electronic media & technology on the toddlers of age between 0-5 years. The data was collected by their parents with the help of structured questionnaire.

- **Primary Data:** Primary data for the research was collected by the parents of the target group (0-5 years) with the help of structured questionnaire.
- **Secondary Data:** Secondary data for the research was collected from various Research articles, journals and magazines.
- **Sample Size:** 40 no of samples were taken for the study from one residential area of Aurangabad with the help of random selection method.
- **Limitations of the Study:** As the sample universe (Aurangabad City) was very large in size, only one residential area is taken for the study purpose.

WHAT IS ICT?

Information & Communication Technology (ICT) can be defined as “anything which allows us to get information, to communicate with each other, or to have an effect on the environment using electronic or digital equipment”.

TYPES OF ELECTRONIC MEDIA:

- Laptops & Computers
- Digital Cameras
- Creativity and Communication Software and Tools
- Internet
- Telephones, Mobile phones, Music Systems

- Interactive stories, Simulated Environments (Games), and Computer Games
- Programmable toys
- Television
- Electronic Boards and many other.

ELECTRONIC MEDIA AND TODDLERS

In today's society, electronic media are thoroughly integrated into the fabric of life, with television, movies, videos, music, video games, and computers, central to both work and play. In today's world, due to inflation, women empowerment, women education, maximum women are working and making their careers in various fields. Hence Parents are so busy to have a better life for them and their families.

In this life's race, their families & their kids are leaving behind. Parents don't have enough time to spend with their children. Many times, due to nuclear families parents have to keep their children to crèche or day-care centers, As parents cannot give enough time to their kids, toddlers are enrolled to play schools at a very young age to keep them engaged. Media has become a third parent or servant today. As both parents are working, mother in kitchen and father busy in reading or out for his work and the kids have remote in their hand and watches only movies or cartoons or parents give them Mobiles or I pads to them to keep them engaged.

As toddlers spend more time with media, this has decreases the amount of time available for pursuing other more healthy activities such as sports, physical activity, cultural pursuits, reading and family time. Background TV or Mobile phones interferes with the toddlers' ability to focus on play. They do not discriminate between TV or Mobile phones and real life events until preschool years. There is growing literature about impact of electronic media exposure on attention, memory, executive functions, language and communications, visual spatial processing, reasoning and social emotional functioning.

POSITIVE AND NEGATIVE INFLUENCES OF MEDIA ON TODDLERS

Positive Effects of media & technology

- Impact of media depends on the age of the child and the content of the media. Media technology can be used effectively as a teaching tool in school but the results depend on how teachers use the technology and their own comfort level with the media. Attention to television appears to be closely related to the child's understanding of the contents. Content if designed correctly can enhance learning. Transfer of learning from TV is possible only if the child understands the contents, remembers it and sees it in relation to the new problem.
- Improved concentration level
- Improved Listening
- Gaining Knowledge
- Clarity in educational concepts
- Help Fine Tune Motor Skills

Negative Effects of media & technology:

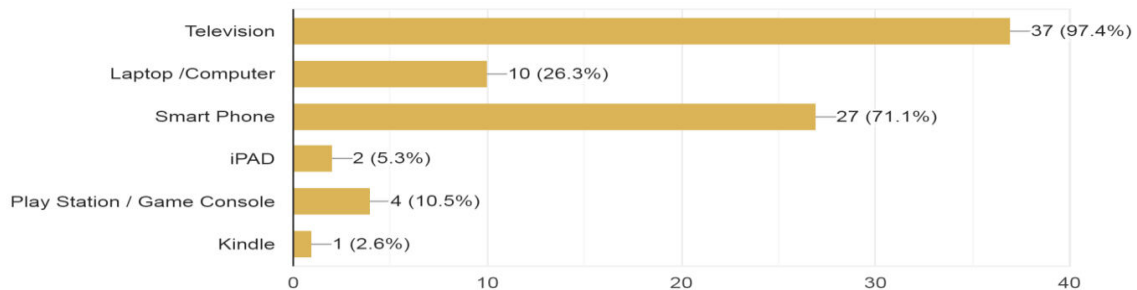
- Different health issues like obesity, poor eyesight, hearing problems etc.
- Lack of Nutrition
- Lack of Concentration
- Lack of communication with family & friends
- Disturb sleep
- Lack of physical activities like games & sports

DATA ANALYSIS & INTERPRETATION

Graph No. 1

1) Mark the gadgets that you have at your home.

38 responses



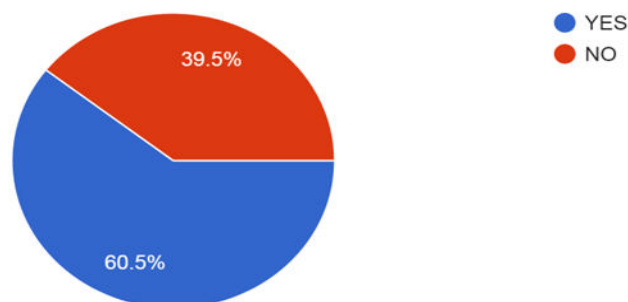
Source: Field Survey

Graph No, 1 shows that 97.4% families are having Televisions in their homes, 71.1% parents are having smart phones in their families, 26.3% have Laptops & computers, 10.5% respondents have Play stations, 5.3 % families have Ipads and 2.6% have Kindles . This analysis shows that how many media gadgets are easily available to kids at their homes.

Graph No. 2

2) Can your child operate mobile/tabs on their own?

38 responses

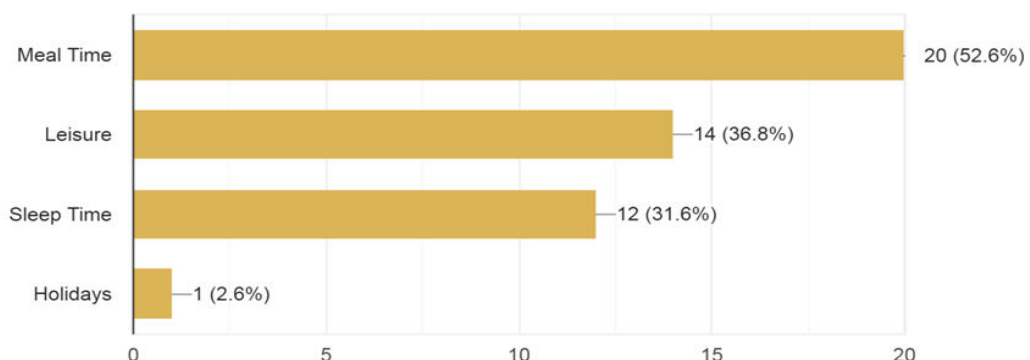


Graph No. 2 shows that 60.5% respondents say that their kids can easily operate gadgets at their own. And 39.5% respondents say that their kids cannot operate gadgets at their own.

Graph No. 3

5) When does your child prefer using Smart phones/ Television?

38 responses



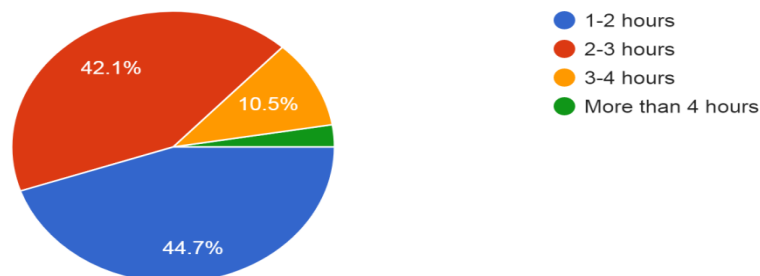
The result of Graph No. 3 shows that 52.6% toddlers watch television or smart phones while having their meals. 36.8% respondents said that their toddlers watch television or smart phones when they are free or getting bored. 31.6% respondents said that their toddlers watch television or smart phones before going to bed. 2.6% respondents said that their toddlers watch television or smart phones at the time of holidays.

The above result shows that how much bad impact the television or smart phones have on toddlers health & digestion system as they watch something on gadgets while having food and on their sleep as they use gadgets before going to sleep as well.

Graph No. 4

6) How much time in a day, do you spend with gadgets?

38 responses

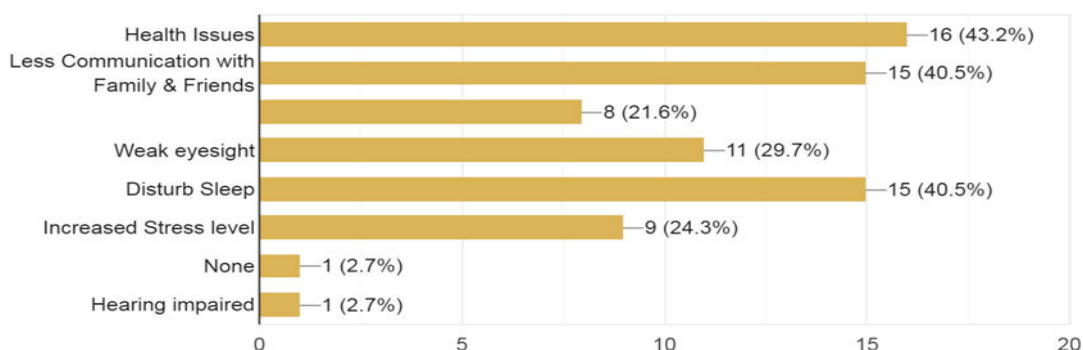


This graph no 4 shows that 44.7% toddlers spend around 1-2 hours daily on using gadgets which is a high ratio. 42.1 % toddlers spend around 2-3 hours daily on using gadgets which is extremely harmful for them. 10.5% toddlers spend around 3-4 hours daily on using gadgets and 2.7% toddlers spend more than 4 hours a day on some kind of gadget which is very scandalous

Graph No. 5

8) Have you observed any of the following disadvantages of using gadgets in your children?

37 responses

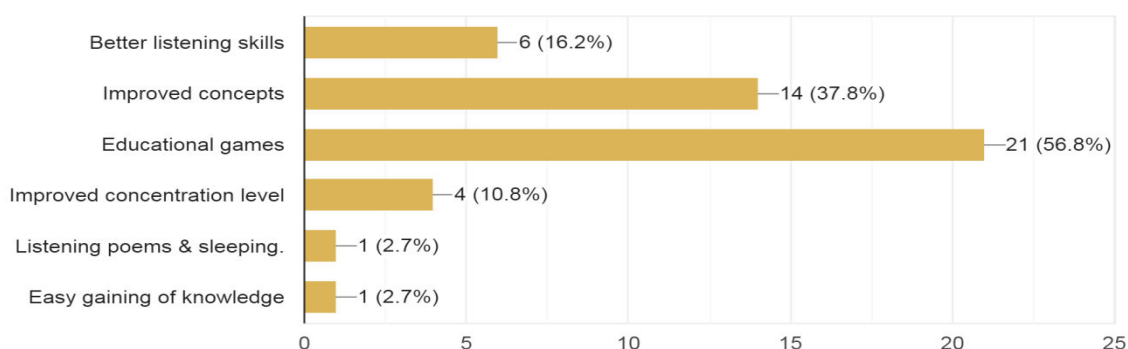


The result of Graph No. 5 shows that 43.2% respondents agreed that they have seen health issues among their toddlers due to excessive use of gadgets. 40.5 % respondents said that they have observed less communication their toddlers with family & friends. 40.5% toddlers are facing disturb sleep problem and remaining are facing problems like weak eyesight, hearing problem and stress issues.

Graph No. 6

9) Pick the advantages of using electronic media to your child?

37 responses

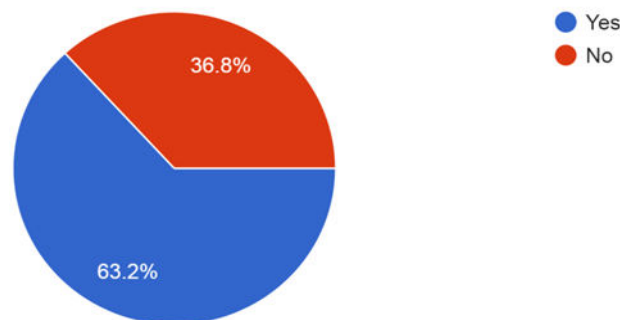


The result of Graph No. 6 shows that parents also find some advantages of using gadgets by their toddlers. 16.2 % respondents said that they have seen good listening skills among their toddlers, 37.8% parents said that the toddlers learn concepts more easily & clearly. 58.8% parents reacted that educational games are helpful for the toddler to enhance their learning. And remaining 16.2 % parents feel that due to gadgets toddlers gain knowledge in a easy way and there is improvement in their concentration level.

Graph No. 7

11) Does your child get irritable if he/she is restricted from using electronic interfaces?

38 responses



Graph No 7 shows the result of reaction of toddlers, if use of gadgets is restricted to them. 63.2% parents agreed that their kids get irritated if they are not allowed to use an electronic gadget and 36.8% parents said that their children do not get affected if they are not allowed to use gadget. This result shows that maximum toddlers do not except the restriction of gadgets which is a large no and not good for small kids and society.

FINDINGS

- There are some advantages as well as disadvantages of different electronic gadgets on toddlers.
- Each & every family has some kind of electronic gadgets at their homes like televisions, laptops/computers, smart phones, Ipad/Tab or kindle etc which results in easy availability of gadgets to toddlers.
- 44.7% toddlers spend around 1-2 hours daily on using gadgets which is a high ratio and 42.1 % toddlers spend around 2-3 hours daily on using gadgets which is extremely harmful for them.
- All most all respondents agreed that their kids have different health issues like weak eyesight among, hearing issues, stress issues. Also toddlers face social issues like less communication with family & friends.
- As there are many disadvantages of using electronic gadgets, there are certain benefits also found. It is seen that many parents agreed that the learning level, the communication skills, the listening skills and the knowledge of toddlers are increased due to use of electronic gadgets.

CONCLUSION

As we see around us, there is pollution of electronic gadgets around us today. We can see extreme use of electronic gadgets everywhere, which is life threatening issue today. Electronic gadgets are affecting each & every individual, no matters of what age he/she is! Today every home has some kind of gadgets, so obviously toddlers can't be keeping away from it. So the impact of this is definitely harming toddlers in a very bad way. This study show the reality of use of gadgets among the toddlers, which needs to think very seriously and actions needs to be taken in the society. If proper actions would be taken by the parents, we can lead towards a better society for tomorrow.

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**“THE VERY TRUTH OF ALL TRUE BEING”: THE ADAPTATION OF THE PYTHAGOREAN
TETRACTYS IN COLERIDGE’S PHILOSOPHY**

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Abstract

This article proposes to analyze Coleridge’s application of the concept of *tetractys* to his method of deduction, the "Dynamic Philosophy". Pythagoras' idea of *tetractys* emerged as something very fundamental in Coleridge's works, especially in the major works written after 1815. In classical metaphysics the concept of *tetractys* is found in Pythagoras and then in Plato's *Timaeus*. Coleridge adopted the original Pythagorean version but he must have been acquainted with a mythical representation of the idea in *Timaeus*. This article shows how Coleridge adapted the concept in its pure Pythagorean form with his own modification in *Logic*, in the *Philosophical Lectures* and in *Aids to Reflection*. The *tetractys* then is developed into a theological paradigm in *Confessions of an Enquiring Spirit* and is called “Pentad of Operative Christianity”. The adoption and application of *tetractys* also shows the way Coleridge’s thought process would take a Trinitarian turn—from rationalistic philosophy to religious speculations.

Introduction

It is according to my conviction no other than the system of Pythagoras and of
Plato revived and purified from impure mixtures.

(Biographia Literaria, p. 180)

These words are written by Coleridge in the twelfth chapter of *Biographia Literaria*. He names his method of deduction, the "Dynamic Philosophy" in the tradition of Pythagoras and Plato. The word "dynamic" derives from the Greek *dunamis* meaning "power" or "force," which imparts, in a philosophical sense, mobility to things. The idea of the *dunamis* was revived in Germany by Kant and his followers.¹ (*Biographia Literaria*, p. 196) Though Coleridge refers to Dynamic Philosophy as being no other than the system of Pythagoras and Plato 'purified from impure mixtures' he is also using the word 'revived'. That this suggests that Coleridge was thinking of Kant, Fichte and Schelling is clear from the context in which the remark is made. Coleridge obviously has in mind the larger philosophical debate that resulted from the clash of the mechanical and idealistic schools of Western psychology.

Since the majority of the thinkers in Coleridge's country supported the mechanical theory of psychology, this presented a significant challenge for Coleridge. He discounts a system that is more congenial to the Englishman's temperament and practical attitude to life.² (*Biographia Literaria*, p. 191-192) Coleridge only half belonged to his country in matters of philosophy: the dreamy visionary state of mind which he felt more at home was alien to the islander's temper, it was more German but German in the sense that it repossessed for itself the soul of European thought which was born with the Greeks. (cite)

For my part I would remain satisfied to have explained this system (of German transcendental philosophy), to have made the system sufficiently intelligible to my countrymen. (*Biographia Literaria*, Chap IX, p. 104)

¹"*Biographia Literaria* ed., J. Shawcross, Vol 1, Chap XIII, p. 196. "The venerable sage of Königsberg has preceded march of this master-thought. (He)proceeds to the idea of negative quantities and the transfer of them to a physical investigation' Again, "transcendental philosophy demands that two forces should be conceived counteract each other by their essential nature".

²*Biographia Literaria*, ed., Shawcross, Vol I, Chap. XII, pp. 191-192. Coleridge says "Great indeed are obstacles which an English metaphysician has to encounter".

Coleridge's position on this matter is clear from the account he gives of mechanical philosophy in Chapter VI of *Biographia Literaria*. It shows further that Coleridge's philosophical beliefs were founded on the rationalistic methods of Plato and Pythagoras. Mechanical philosophy was wholly rejected:

Whether any philosophy be possible, but the mechanical; and again, whether the mechanical system can have any claim to be called philosophy. . . It is however certain that as long as we deny the former, and affirm the latter, we must bewilder ourselves, whenever we would pierce into the *adyta* of causation: and all that laborious conjecture can do, is to fill up the gaps of fancy. Under that despotism of the eye (the emancipation from which Pythagoras by his numerals and Plato by his musical symbols, and both by geometric discipline, aimed at, as the first propaedeutic of the mind) - under this strong sensuous influence, we are restless because invisible things are not the objects of vision. (*Biographia Literaria*, Chap VI, p. 74.)

Coleridge wrote in *Aids to Reflection*:

Nor was it altogether without grounds that several of the Fathers ventured to believe that Plato had some dim conception of the necessity of a divine mediator, whether through some indistinct echo of the patriarchal faith, or some rays of light refracted from the Hebrew prophets through a Phoenician medium ... or by his own sense of the mysterious contradiction in human nature between the will and the reason... (Introductory Aphorisms, p. 20-21)

The idea of "mediation" is central to Coleridge's religious philosophy as well as his conceptions of creativity and poetry. As the soul strives to reach its zenith in the Divine Image, Jesus serves as a figure of mediation that allows the "will" and "reason" to be brought into harmony. Imagination analogically serves as a mediating power that unites the soul and the spirit that strives to objectify itself in the poet's consciousness.

It is a power that integrates all opposed or contradictory aspects of experience into one with a sense of completeness when it first appears in the poet's imagination. All poetic inspiration originates in the *logos* or Ground, which appears as a harmony of polarised elements, distinctions, and diametrically opposed states of representation before revealing itself as a whole. This antecedent unity of poetic creativity foreshadows Coleridge's idea of imagination. This is the paradigm of the creative process in Pythagoras as well as Plato.

Pythagorean *tetractys*

In Coleridge's works, particularly in the significant works published after 1815, the concept of *tetractys* from Pythagoras became something very vital. In classical metaphysics the concept of *tetractys* is found in Pythagoras and then in Plato's *Timaeus*. As Spitzer pointed out,

... [*tetractys*] was associated by legend with the Apollonian oracle at Delphi. Inasmuch as it explained the laws of heavenly and earthly music, the *tetractys* was the key to the laws of nature; inasmuch as it made possible the imitation of divine, it permitted man to approach divine perfection, hence its moral, religious, ``cathartic" aspect.' (Spitzer, 1963, p. 67.)

It is in its pure Pythagorean form that it is mentioned in *Logic*, in the *Philosophical Lectures* and in *Aids to Reflection*. The *Tetractys* then is developed into a theological paradigm in *Confessions of an Enquiring Spirit* and is called *Pentad* of operative Christianity. "But most importantly, the *Tetractys*", Modiano argues, "showed Coleridge the possibility of explaining the coexistence of both unity and multiplicity or distinctness within the Godhead." (Modiano, 1985. P. 190)

The Pythagorean *tetractys* is a mystical quartet that aims to represent the creative fiat, or the method by which objects in the phenomenal world come into being. Pictorially the *tetractys* is represented as a pyramid of four points:

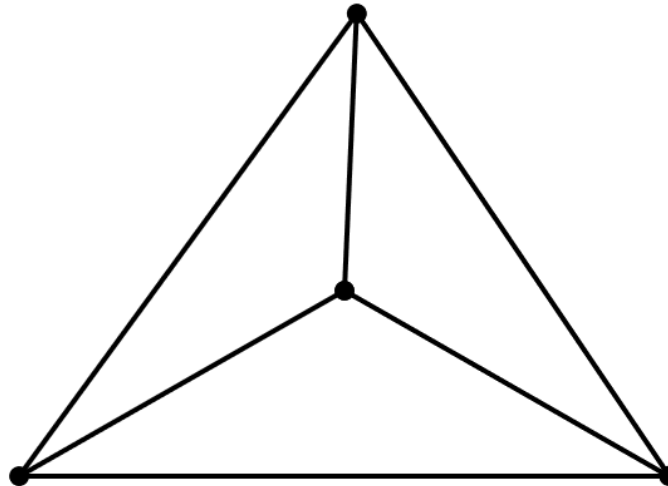


Diagram 1

The pyramid is a solid-geometrical construction that encloses a specific space and is created by joining four points in a quartet. The first point, which is at the top of this pyramid, is the origin of this spatially imagined design. This in Pythagorean cosmology constitutes what is called the *punctum indifferens*, a position within the magnitude because of its peculiar nature is in itself a duality resolved in a single unity. The geometrical *punctum indifferens* occupies a position in space but it is also outside phenomenal space.

It is something that can be understood in terms of space and time, but it cannot be found there. It is illusive and unconstrained, present yet perpetually absent. It is the core of both existence and non-existence. The geometric point creates magnitude by following a path through space. A straight line is defined as the distance that a point travels in a predetermined, straight direction. However, we only get a triangle when three points are connected by straight lines.

In a diagram we may represent this as follows:

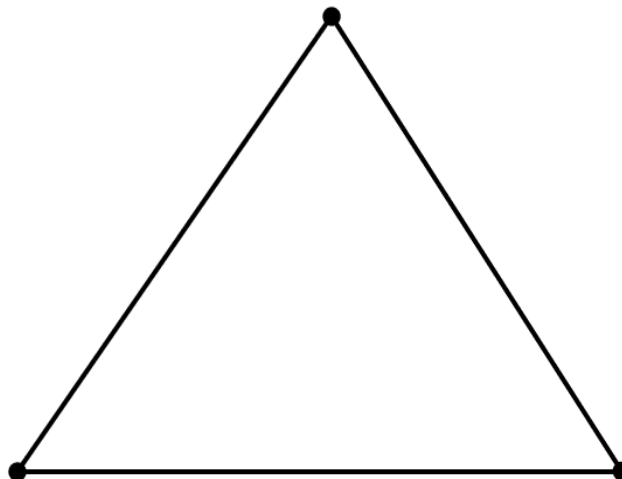


Diagram 2

The three sides enclose a surface and thus is said to give rise to the first spatial unit. Coleridge refers to the manner in which the *punctum indifferens* engenders the triangular surface as a figure enclosing space in the twelfth chapter of *Biographia*:

The first and most simple construction in space is the point in motion, or the line. Whether the point is moved in one and the same direction, or whether its direction is continually changed, remains as yet undetermined. But if the direction of the point have been determined, it is either by a point without it, and there arises the straight line which incloses no space; or the direction of the point is not determined by a point without it, and then it must flow back again on itself, that is, there arises a cyclical line which does inclose a space. (*Biographia*, Chap XII, p. 171)

Coleridge illustrates the role of polar powers in maintaining the generative process with the use of this geometrical metaphor. On the one hand, it is demonstrated that the point that extends from an origin is propelled by limitless energy, yet the location is predetermined and kept under control by a sense of direction. Coleridge utilizes this example to present a geometrical argument for the polarity that is inherent in a single power. Neo-Platonists or Hermetists like Bruno and Ramon Lull also used the fact that this particular power involves two opposing inclinations to explain the underlying principles of the universe. Coleridge came to know the science of polarity not from the Germans, Kant or Schelling. He congratulates Kant on having 'introduced the concept of negative quantities into philosophy'. But in Chapter Coleridge refers to the philosophy of Giordano Bruno saying that like Schelling he too received his training in the science of polarity from Bruno: "We had both equal obligations to the polar logic and dynamic philosophy of Giordano Bruno. (*Biographia*, Chap IX, p. 103)

Now, according to Schelling the creative power which contains the *a priori* unity of polar powers is called the Ground. It is also called the I AM. Coleridge's creative *prothesis* is no other than the Schellingian Ground. One can try to understand something of its nature by referring back to the arch concept of Pythagorean *tetractys*. The *tetractys* may also be represented numerically and the numerical arrangement is seen to correspond to a geometrical graph. The solid pyramid of four triangles which is generated at the point is represented likewise:

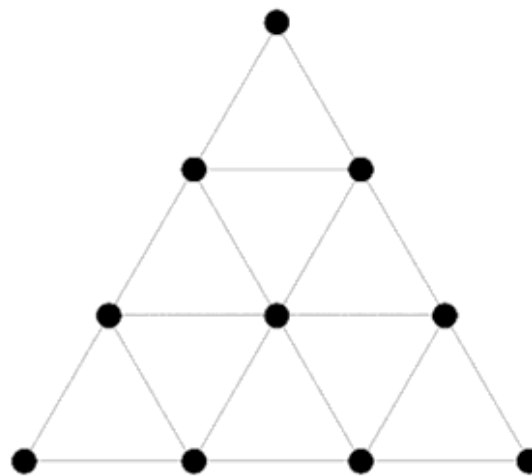


Diagram 3

Here a total of ten points help conjure the mystical structure of the pyramid. On the joining path between the points the figure resembles the pyramidal formation:

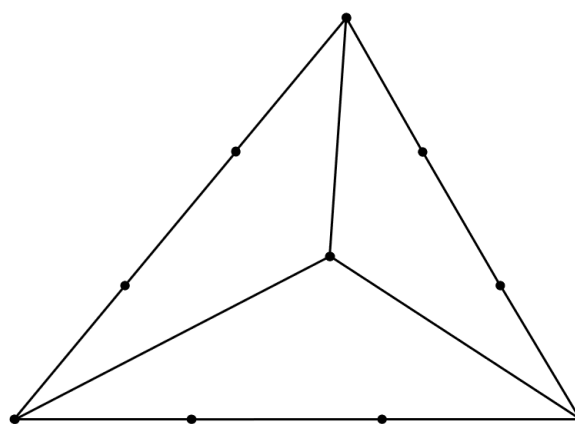


Diagram 4

This Pythagorean model is the 'golden triangle', a collection of ten points in space. The triangle represents the number ten. Numerologically, the numerals one and zero (which make ten) when added give one. In numerology one is the perfect number. One (1) is a numerical sign for the Deity. This Pythagorean idea is elaborately explained in Plato's *Timaeus*, a work which was scrupulously examined, by Coleridge and which was much in his mind while the *Biographia* was being written. Plato adopts the numerical *tetractys* to explain the act of creation. In one of the most significant parts of the *Timaeus* Plato explains the mystery of creation by numerical signs and it is also stated, in one of the most brilliant philosophical exegeses in the entire history of philosophy, how the mystical angle constructs the units of the elements which compose the universe and how as

such "the triangle forms a basis of a spiritual cosmos". (*Timaeus*, ed., B. Jowett, p. 35) Timaeus is one of those Dialogues in which it is not Socrates but another person, Timaeus, who is made to speak. *Timaeus* is explaining the first things to Socrates who is listening with ardent attention. Timaeus shows how this world was created but the representation is not made by means of direct narrative but by using a numerological myth. Timaeus says that God:

...took away one part of the whole (1), and then he separated a second part which was double the first (2), and then he took away third part which was half as much again as the second and three times as much as the first (3). (*Timaeus*, ed., B. Jowett, p. 35)

This numerological description suggests that the creative process has its origin in a single movement from where the fiat proceeds in accordance with numerical harmony. There is progressive movement yet at the same time there is a return back to an idea of a mean or balance to what Coleridge calls 'mesothesis', a middle. Thus two (2) is got from one (1) not by addition but by subtraction of one part or half part from a whole (1). This division of one into two by itself is the first moment in the process.

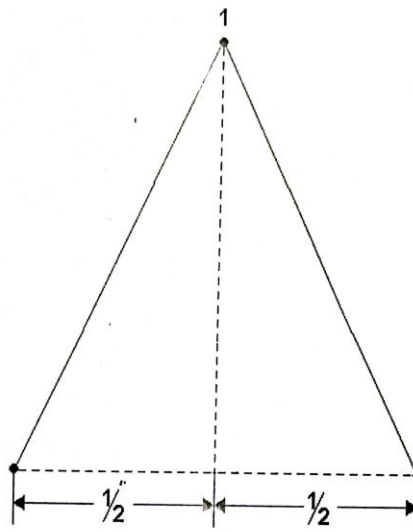


Diagram 5

In the second moment of creation, Plato says the creator takes away a third part which has half as much again as the second. If we represent this by a linear diagram we observe how the length of the number line extends to twice its previous length. In this act of doubling, half generation of a second half is creation most manifest.

MEAN
OR
MESOTHESES

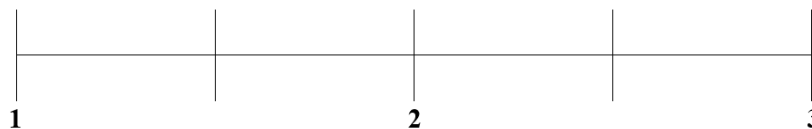


Diagram 6

Plato following the paradigm of the Pythagorean *tetractys* constructs an elaborate numerological analogy for the creative process. The idea which supports this entire system is that of the 'mean', or the mediating agency of the power. It is one power but in the creative process it divides itself. It manifests itself as a river which flows out and then returns back upon itself to reside at the mean of entire creation and in this way the power continually reconciles itself with itself. It was precisely this nature of the power which is always from God yet which is God and which seeks to reconcile itself that Coleridge as well as the German transcendentalists revived and employed in philosophy. The history of ideas reveals that the notion of the polarity of this one dynamic power which was a central theological idea in Greek thought went underground and came back in the thought of men like Eckhart and Bruno, who were labelled as heretics by the Catholic Church. But it was re-introduced in establishment philosophy after a gap of several centuries by Immanuel Kant in Germany. Coleridge came into contact with the concept of polarity in the writings of Boehme and Bruno whom he had read in school as well as in his early manhood. The theory of polarity was also a central concept of the Cambridge Platonists with whose

writings Coleridge became familiar during 1795-1796. Above all, his understanding of polarity was strengthened by reading of the works of Giordano Bruno. Coleridge himself acknowledged this in the *Biographia Literaria*. Now that we have discussed certain aspects of the creative process as mathematically embodied in Pythagoras and Plato, we shall consider how this ancient Greek parasymbolism was adopted in Christian theology, especially in the writings of the Apostles of the New Testament, John and Paul. The exegesis in the Gospels of John and in letters of Paul, later came to be known as the Apostolic Creed. Theologically it was in the Apostolical doctrine of John that Coleridge finally came to anchor his faith. In a note about the efficacy and ritualistic significance of prayer Coleridge wrote that nothing could be more rewarding than:

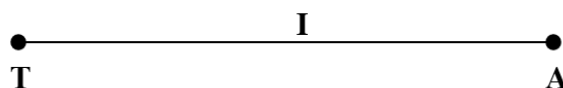
... to read over and over again, and often on your knees - at all events with a kneeling and praying heart the Gospel according to St. John, till your mind is familiarized to the contemplation of Christ, the Redeemer and Mediator, of mankind, yea, of every creature as the living and self-subsisting word, the very truth of all true being, and the very being of all enduring truth; the reality which is the substance and unity of all reality; the light which lighteth every man. (Aids to Reflection, Note on 'Book of Common Prayer', p. 350)

The context in which Coleridge recommends the Gospel of John is not philosophical, it pertains to the following of a certain ritual of the Church. Coleridge wrote this much late in life and it was printed in the *Aids to Reflection* along with two other major prose tracts by E.H. Coleridge. We shall now turn to examine the manner in which Coleridge adopted the Pythagorean *tetractys* model to illuminate the 'Trinitarian model of God as the Father, Son and the Holy Spirit. We shall see moreover that the Platonic logos and the logos of John are conceived to be one and the same and then try to realize the significance of *logos*, Greek word as the origin of all knowledge and all philosophy.¹

We should hesitate, however, to accept Coleridge as a purely orthodox thinker as we find those Fathers of the Church or the Apologists of early Christianity who were responsible for the great synthesis of Platonism and Christian Apostolic doctrine. Coleridge adopted a great deal of Apostolic wisdom to illuminate his own concepts but he was also an honest speculative thinker and even an existentialist. The application of the Pythagorean *tetractys* and the symbolic representation of the Trinity had appeared in Coleridge's mind already while he was dictating the *Biographia* to Dr. Gillman but its most clear formulation is found in *Aids to Reflection* and more so in *Confessions of an Enquiring Spirit*.

"this schematism incorporates the dynamics of polar logic in a relational model of reality that Coleridge hopes will give a philosophical underpinning to Trinitarianism." (Milnes, 2008, p. 65) The first triangular/triadical representation of the word, the scriptures and the Church with the Holy Spirit at the centre of the base is a transplantation of the *tetractys* idea to a religious foundation. The grounds for such a transplantation had been already prepared and in a very significant passage in the *Aids* Coleridge draws attention to the Pythagorean *tetractys* and uses it to show that such a model was conducive to Christian thoughts because it helped preserve the notion of the ineffable personality of the Deity. It helped the Pythagoreans 'guard against pantheism'. Coleridge first explains the *tetractys* in geometrical terms:

Every line may be, and by the ancient Geometricians considered as a point produced, the two extremes being its poles, while the point itself remains in, or is at last represented by, the midpoint, the indifference of the two poles or real correlative opposites. Logically applied the two extremes or poles are named Thesis and Antithesis: thus in the line



We have T=Thesis, A=Antithesis and I=*Punctum Indifferens sive amphotarium* which latter is to be conceived as both in as far as it may be either of the two former. (Aids to Reflection 'Aphorisms on Spiritual Religion, p.p. 117-118.)

After this explanation of the Pythagorean *tetractys* Coleridge indicates its significance:

In order to render the construction of pure Mathematics applicable to philosophy, the Pythagoreans, I imagine, represented the Line as *generated* or, as it were, radiated by a Point not contained in the line

¹This refers to the section called "The Pentad of Operative Christianity" which is included in *Confessions of an Enquiring Spirit*.

but independent and transcendent to all production which it caused but did not partake in. Thus was the *punctum invisible et presuppositum*: and in this the Pythagoreans guarded against the error of Pantheism into which the later schools fell. The assumption of this point I call the logical Prothesis... Taken absolutely this finds its application in the Supreme Being alone, the Pythagorean TETRACTYS; the INEFFABLE NAME, to which no Image can be attached; the Point which has no (real) Opposite or Counterpoint. But *relatively* taken and inadequately the germinal power of every seed might be generalized under the relation of Identity. (Aids to Reflection 'Aphorisms on Spiritual Religion, p.p. 117-118.)

Coleridge calls the *tetractys* relationship the Noetic Pentad and not just a triangularly conceived or triadic set. He represents the Pentad by extending the *tetractys* to a Pentad by adding a fifth element called synthesis, the reconciliation of the Thesis and Antithesis:

1. Prothesis

2. Thesis

4. Mesothesis

3. Antithesis

5. Synthesis

Diagram 7

The same set of relationship between the components of the one prophetic being is next presented to show the attributes of this being as they are represented in the act of perception.

Prothesis

Sum

(Supreme Being)

Thesis

Res

(Substantive /Being

Mesothesis

Agere

(Being or Act together)

Antithesis

Ago, Patior

(Verb/ Act)

Synthesis

Agens

(Participle)

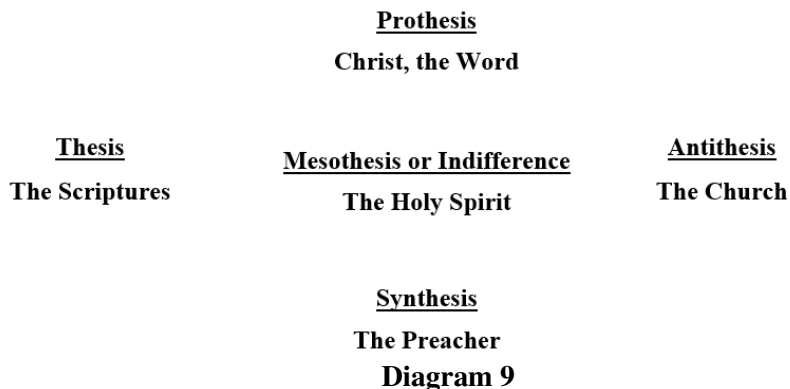
Diagram 8

The elaboration of this doctrine in the section called 'Aphorisms on Spiritual Religion' in *Aids to Reflection* however also draws attention to something important in Coleridge's thought. In the second aphorism, in the section on Spiritual Religion Coleridge says that despite this deductive model of the creator's creation of the world it does not necessarily and conclusively, prove that the idea of the creator can be logically tendered. The Pentad imitated to "complete the five most general forms or preconceptions of constructive Logic. (Aids to Reflection 'Aphorisms on Spiritual Religion, p. 119.)

That even if the idea of the *tetractys* as it is found transformed into the Noetic Pentad of Christianity were to furnish a propaedeutic to the (Constructive Logic it was by no means wholly valid form of representation, for above all Coleridge feels that the derivation of all concepts from the Supreme Being is inexplicable. In the highest moment of this derivation is Revelation. It would be wrong to suggest, Coleridge says,

... as if I held the doctrine of the Trinity for a Truth which men could be called on to believe by mere force of Reasoning, independently of any positive Revelation...I regard the very phrase 'Revealed Religion' as a pleonasm, in as much as a religion not revealed is, in my judgement, no religion at all". Aids to Reflection, Aphorism II. p. 120-21.

In *Confessions of an Enquiring Spirit* Coleridge represents what he calls “The Pentad Operative of Christianity” as follows:



Coleridge calls the three components in the second line of the Pentad as the co-ordinates of the Scripture which reveals the Word, the Holy Spirit and the Church which upholds the faith manifest forth and have their being from the Word:

The Eternal Word, Christ from Everlasting, is the Prothesis or Identity; the Scriptures and the Church are the two poles; or Thesis and Antithesis.. . and the Preacher in direct line under the Spirit, but likewise the point of junction of the Written Word and the Church is the synthesis. This is God's hand in the World. *Confessions of an Enquiring Spirit*

This implies that the indifference of the Scriptures and the Church, that is, the point in which the two are identical to each other in as much as this identical point is conceivable as belonging to both extremes of the co-ordinate, is the Holy Spirit. The Spirit is present and animates the Scripture just as much as it illuminates the rituals of the Church with significance. Owens argues rightly,

With these two models [of Pythagoras and Plato] Coleridge attempted to express all knowledge in a coherent system and thus to locate an original and organic heuristic for thought. This was the ultimate project for his mature philosophy and it was imaginatively underpinned by astronomy. (Owens, 2019, p. 159)

Conclusion: *Teractys* and Trinitarianism

The synthesis of Platonic and Christian thought which characterizes the philosophy of Marsilio Ficino provides us with a concrete example of the kind of Trinitarian speculation which resembles the guiding theses of Coleridge's metaphysical system. The three hypostases of Plato's concept of creation can be represented as first the word or *logos*, secondly, creation, and thirdly spirit. This is the movement of the Neoplatonic spirit, the 'Eros' which pulls it up forward towards identification with its origin. This is the mystery of creation. Our whole elucidation of the mystery rests on our understanding of the paradox that Creation is not so much a Word descent, or emanation from the Word of God but a manifestation or expression, the upheaval - so to speak - of the Word of God. This reversal in our conceptual scheme of creation is essential to our understanding of Trinitarianism. This was the version of Trinitarianism that Coleridge had finally adopted as the zenith of his metaphysical system. This article can be concluded here with Fisher's comment on the Trinitarian turn and the future direction of his philosophical system:

In later experimental attempts to synthesize religion and philosophy, Coleridge will continue to identify the dialectical ground of knowing and being with a personal God ... and with each successive readjustment first of the Pythagorean Tetractys... and then of his various Pentads, Coleridge will increasingly shore up his philosophy with religious appeals..." (Fisher, 1989. P. 144)

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ANIMAL HUSBANDRY AND RURAL DEVELOPMENT: A PATHWAY TO SUSTAINABLE LIVELIHOODS

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ABSTRACT

This research paper explores the significance of animal husbandry in rural development and its potential as a pathway to sustainable livelihoods. It examines the role of animal husbandry in generating income, employment opportunities, and food security in rural communities. The paper discusses strategies and interventions that can be employed to promote animal husbandry, including improved breeding, animal health management, value addition, and market linkages. It also highlights the socio-economic and environmental benefits associated with animal husbandry and explores potential challenges and opportunities for its integration into rural development programs. The findings of this research paper emphasize the importance of recognizing and supporting animal husbandry as a key component of rural development strategies.

Promoting allied livelihood ventures is crucial for rural development. Here are some key sectors within allied livelihoods and strategies for their promotion:

Animal husbandry plays a vital role in rural development, making it crucial to study and understand its impact in this context. This research paper aims to delve into the significance of animal husbandry within rural development frameworks. It presents the objectives of the research paper, providing a roadmap for the subsequent sections.

Role of Animal Husbandry in Rural Development: This section explores the multifaceted contributions of animal husbandry to rural development. It emphasizes how animal husbandry enhances income generation, reduces poverty, creates employment opportunities in the livestock sector, ensures food security, and promotes sustainable utilization of natural resources.

Strategies for Promoting Animal Husbandry: To effectively promote animal husbandry, various strategies are crucial. This section examines key approaches such as improved breeding and genetic selection, animal health management, fodder and feed management practices, value addition through agro-processing, market linkages, and capacity building and training programs.

Socio-economic and Environmental Benefits: Animal husbandry brings about significant socio-economic and environmental benefits in rural areas. This section highlights how it empowers rural communities, particularly women, promotes biodiversity conservation, sustainable land management, and contributes to climate change adaptation and mitigation.

Challenges and Opportunities: Understanding the challenges and opportunities associated with animal husbandry is essential for effective development interventions. This section explores the constraints and barriers faced in animal husbandry development, the importance of policy and institutional support, potential opportunities for innovation and entrepreneurship, and the integration of animal husbandry with other sectors of rural development.

1. Animal Husbandry: Potential for Growth and Income Generation Animal husbandry, including livestock rearing and dairy farming, has significant potential for growth and income generation in rural areas.

Strategies to promote this sector include:

- **Improved Breeding and Animal Health:** Encouraging the use of high-quality breeds and providing veterinary services to ensure the health and productivity of livestock.
- **Feed and Fodder Management:** Promoting the cultivation of improved fodder crops, silage production, and efficient feed management to enhance livestock nutrition.
- **Value Addition:** Supporting the establishment of dairy processing units, meat processing facilities, and value-added products from livestock, such as leather goods and wool-based products.
- **Market Linkages:** Facilitating linkages between livestock farmers and markets, including establishing cooperatives, providing market information, and promoting direct marketing channels.

2. Fisheries: Tapping into Aquatic Resources The fisheries sector offers opportunities for rural development, especially in areas with access to rivers, lakes, or coastal regions. Strategies for promoting fisheries include:

- **Fish Farming:** Promoting fish farming through pond aquaculture, cage culture, and integrated fish farming systems.
- **Improved Post-Harvest Practices:** Enhancing post-harvest handling and processing techniques to minimize losses and ensure the quality of fish products.
- **Market Development:** Facilitating market linkages for fish farmers, including connecting them with fish traders, exporters, and domestic markets.
- **Capacity Building:** Providing training on modern fish farming techniques, sustainable fishing practices, and fish processing and preservation methods.

3. Agro-processing: Value Addition and Employment Generation Agro-processing activities can add value to agricultural products and generate employment opportunities in rural areas. Strategies for promoting agro-processing include:

- **Infrastructure Development:** Establishing agro-processing units, such as food processing plants, grain mills, oil extraction units, and fruit and vegetable processing facilities.
- **Technology Adoption:** Encouraging the adoption of modern processing technologies and equipment to improve efficiency and product quality.
- **Skill Development:** Providing training and capacity building programs for rural entrepreneurs in agro-processing techniques, food safety standards, and business management.
- **Market Access:** Facilitating market linkages for agro-processed products through partnerships with retailers, wholesalers, and export agencies.

4. Horticulture: Opportunities in High-Value Crops Horticulture, including the cultivation of fruits, vegetables, spices, and flowers, offers opportunities for high-value crops and income generation. Strategies for promoting horticulture include:

- **Crop Diversification:** Encouraging farmers to diversify into high-value horticultural crops that have good market demand and can fetch higher prices.
- **Technical Support:** Providing training and extension services on best practices in horticulture, including crop selection, cultivation techniques, pest and disease management, and post-harvest handling.
- **Market Linkages:** Facilitating direct market access for horticultural produce through partnerships with wholesalers, retailers, hotels, and export agencies.
- **Value Addition:** Promoting the establishment of cold storage facilities, packaging units, and processing centers for horticultural products, such as juices, jams, sauces, and dried fruits.

CONCLUSION

It provides recommendations for policymakers, practitioners, and stakeholders on leveraging animal husbandry for rural development. Additionally, it suggests avenues for future research to deepen our understanding of this important field.

Through this comprehensive exploration, this research paper aims to contribute to the existing knowledge base, providing insights into the role of animal husbandry in rural development and offering guidance for effective promotion and integration within sustainable development frameworks.

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