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Research Papers

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A COMPARATIVE STUDY OF PERSONALITY TRAITS BETWEEN MALE AND FEMALE ON VOLLEYBALL PLAYER

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ABSTRACT
The purpose of the present research was to describe and compare the personality traits male female in volleyball player (sociability, Extraversion, Dominance, Self-concept, Conventionality, Mental Toughness, Emotional Stability,) of competitive volleyball game in male and female sports. The method of the study is descriptive analyses, total fifty (Each 25) samples representing both in male and female were selected and To collect the data the standardized scale devised by Dr Ajith Sing has administered on the subject who are participating in all India interuniversity tournament, later't' test was applied to assess the significant difference in self-concept factor of personality traits between volleyball sportsperson of male and female, the conclusion was drawn that male sportsperson have possessed the high self-concept personality traits comparing to their counterpart, it was rationalized that nature of male participation develops and cultivates the self-concept values and character among the participants volleyball player.

Keywords: Personality Traits between Male and Female on Volleyball player

INTRODUCTION
Personality including dimensions of Sport psychology has emerged as a field with a personality including dimensions of neuroticism, research tradition that provides a foundation for direct extraversion, openness, agreeableness and application with volleyball. As the role played by conscientiousness, two that have supported both psychological factors in the performance and over well- theoretical and empirical by a large number of researches being of male has become better understood, in the last decades . Numerous studies have intervention have been designed to favorably affect examined the relations between five factor model male behavior throughout their involvement in sport dimensions and sport activities; these studies suggest and beyond. Sport psychology researchers have been that there is a positive correlation between sport interested in how male' psychological an activities, extraversion and conscientiousness and also a characteristics influence performance. From this point, it negative correlation between sport activities and clear that psychological characteristics differ between neuroticism. Also the results of studies connected with more and less effective male and female. Moreover, the Three-dimensional model of personality have shown ability to mentally prepare is considered a key component correlation between sport activities with one or more of such differences. The optimal level of skills in dimensions of low neuroticism, high extraversion and low championship depends on three factors; physical, skill psychotics. It seems that champion's different women are extraversion and there is a significant relation performance depends on mental preparation, influence of between sport abilities and extraversion rate. It is obvious psychology and personality of sportsmen. So it needs to higher abilities have related with self concept and lower compare the relationship between psychological variables abilities with introspection. Some findings have found (personality traits) in different sex. This matter would help different results in this case. Sport is one of the most enduring of all human activities. Virtually from the beginning of any written human records, in civilizations across the world, accounts of sports and sport-related activities are found. For less than the last century sport has been studied scientifically, and sport psychology is an important part of that scientific study. It is an international field, holding the promise of becoming important and only to the understanding of competitive athletic abilities, but to areas of behavior that relate to many domains of human health and activity. Notwithstanding its benefits to the individual and the society at large, competitive sport is a war of nerves as well as war on nerves. Consequently, it has trigged off intense research in various aspects of human behavior and brought into existence sport bio-sciences such as exercise physiology, sport psychology, sport bio-mechanics, sport medicine etc with the sole objective of boosting human performance and making and breaking records. The entire perspective of sports as a joyful social activity has changed for the worse with far reaching behavioral consequences.

The Influence of Socio-Psychological Factors on sportsperson: Man is just as truly a social as a biological creature and the socialization and development of the personality of an individual is a highly complex process. But the research undertaken all over the world indicate the fact that, the development of a personality of an individual is entirely influenced by his socio-economic cultural atmosphere to which he is exposed in his primitive years. Because, the social dimensions of the individual's personality are largely determined by his

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perception of social objects. His interactions and adjustments mainly depend on the interpersonal relations as well as the social, cultural, educational economic and psychological factors. However, there is evidence to suggest that environmental factors are of great significance in facilitating or inhibiting given needs, in conceiving the goals as well as in determining the extent to which one's needs are gratified. Support for this assumption comes from the studies on different aspects of socio-cultural disadvantage/deprivation, carried out in different parts of the world. When these conditions create force of isolation from society, social problems of personality development arise and a person may lose not only advantageous personality traits but suffer from the risk of stagnating in the development process that would lead to deprivation. Likewise, the sportsmen are also the products of socio-economic and cultural milieu in which they are born and brought up. And certainly these conditions and atmosphere would have a big impact on their psychological and personality traits, which could be, manifested not only his selection of game or sport but also on his performance in the sport, which he has chosen. Because there are many psychological concomitants of poverty, which often impose severe handicaps on the performance of sportsmen in the competition. Socioeconomic disadvantages suffered by certain groups tend to have a detrimental effect not only on the general development of the individual but are reflected on the level of cognition and perceptual skills possessed by him. Deficiencies in the environment, either due to physical factors or induced through socio-economic disadvantages have their impact through failure in providing the necessary experiential base essential for the development of the skills in question. It is because our social system is bound with caste, class lines, and norms segmented by great socio-economic disparities that have been sustained right through the ages by traditional and religious sanctions. Thus, it is established fact that the sportsmen exposed to the different socio-economic and cultural background would develop different types of psychological and personality which might be advantageous or disadvantageous depends upon the atmosphere to which they are exposed. The below given studies of Indian context would justify the relationship between socio-economical, and cultural factors on the development of psychological traits. The seven primary personality dimension identified by Dr Ajith singh are described as being functionally independent and psychologically meaningful dimensions of a person's personality. The primary personality factors can be described as follows.

Problem: A Comparative Study of Personality Traits between Male and Female of Volleyball Player.

Hypotheses: It was hypothesized there is a significant difference in self concept between male and male volleyball players

OBJECTIVE

1. To assess the significant differences of personality traits between male and female players

MATERIALS AND METHODS

The present research is descriptive comparative which compares the personality traits of volleyball player male and female sportsperson.

PARTICIPANTS

The participants of the present research are belonging the male and female volleyball player those are participating in the inter university tournaments. The sample was selected using purposive random technique, twenty five subjects of each group as male and female sportsperson were selected from volleyball player male and female were evaluated and compared using seven factor personality traits inventories

MEASUREMENT TOOLS

To collect the requisite data, the standard zed questionnaire constructed by Dr Ajith Sing has administered on the volleyball sportsperson of male and female, who are participating in all India interuniversity tournament held at different part of the country.

Data analysis: First descriptive statistics including means and standard deviation and 't' test used for describing the personality traits of male and female volleyball sportsperson.

The seven primary personality dimension identified by Dr Ajith singh are described as being functionally independent and psychologically meaningful dimensions of a person's personality. The primary personality factors that are self-concept as taken to prepare research article, hence, self-concept has analyzed and described as follows.

Discussion of the Tables

The hypothesis that the male sports person will have a better self concept ability than the female sportsperson is framed on the rationale that the nature of game and participation is believed to be a prime creator of personality traits of male, which also includes the social adjustment. Because normally, the male sportsperson would naturally

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have advantage over her counterpart as the she or he enjoys self interaction, receives more self experience , gets the more rich exposure she gains, would all influence and promote greater amount of characteristics that fit her in a highly stable mentality in which she could easily adjust self himself to the different occasions and rich experience of self and matches would determines personality traits and psychological factors comparing to male volleyball sportsperson.

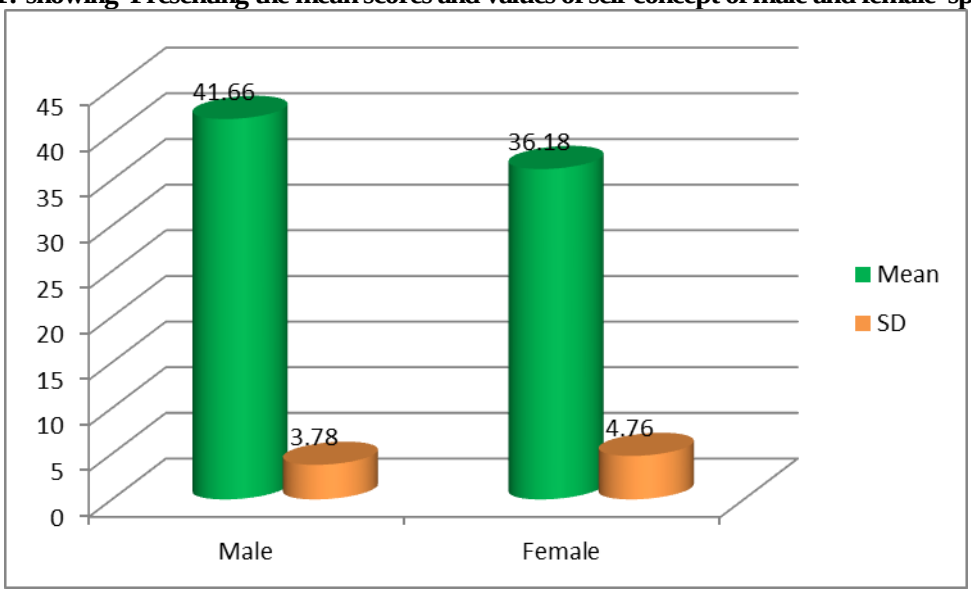
Table- 1.1: showing Presenting the mean scores and values of self-concept of male and female sportsperson

Variables	Male	Female
Mean	41.66	36.18
SD	3.78	4.76
T –Value	**12.72**	

*Significant at 0.05 level

The table reveals the mean, SD and‘t’ values of self-concept of male and female sportsperson and the mean scores of both male and female sportsperson are 41.66 and 36.18. Respectively the higher mean score of male sportsmen indicate the presence of more conventionality nature among them. The obtained’ value is 12.72 which is highly significant at 0.05 suggests that there is a significant difference in self-concept traits of male and female sportsperson.

Figure.1.1: showing Presenting the mean scores and values of self-concept of male and female sportsperson



Because, male students gets more chances to have a better standard of living, better standard of education, mass media exposure and higher level of interaction with in groups. And mantle setup and attitude towards women education is having negative and not supportive nature, also accessible and congenial to providing quality education. Therefore, the sportsperson have lack of opportunities and not supporting leads to hindrance developing positive self-concept, hence formulated hypothesis is conformed.

CONCLUSION

The male volleyball sportsperson participation in sports activities develops harmonious personality traits among the participants, the study also proved and expressed the nature of attitudes and supportive factors towards higher education and life these would results in developing advantages to cultivate the self concept values and positive personality traits in the sportsperson, comparing to their counterpart the female sportsperson self concept is very low level of self-concept among the female..

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A CROSS SECTIONAL STUDY ON REASONS FOR NON-USAGE AND USAGE OF HELMET AMONG TWO WHEELER USERS IN SOUTH INDIA

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ABSTRACT
Background: According to Indian Motor vehicle act-1988 and the Karnataka motor vehicle rules 1989 every person while driving a motor cycle of any type should wear a protective headgear (Helmet).this study has sought to explore the reasons for non-usage of helmet among the two wheeler users.

Methods: A field based cross sectional study was conducted at the Headquarters of Gadag town. Purposive sampling technique was used to recruit the study participants. A pre-tested semi-structured interview schedule was used for data collection from December 2019 to March 2020.

Results: A total 106 riders were interviewed at road side and in parking place. More than one thirdof the two wheeler users opined that wearing of helmetincreases sweating followed by discomfort wear and hair loss. More than half of them perceived that helmet was necessary for purpose of law and to prevent head injury.

Conclusion: Though the helmet use has been compulsory for motorcycle riders in Gadag town from 2016. Buthelmet compliance among riders was very poor and users were given many reasons for non-usage of helmet.

Keywords: Non-compliance; Reasons for non-usage; Helmet law; Injury prevention; RTA

INTRODUCTION
According to world health organization report every year 1.35 millionroad traffic death occurring in the world, among those 54% of them are pedestrians and motorcyclists (1)

In India 69% of the total number of motor vehicles are motorized two-wheelers, considerably higher than in high-income. for instance, 27% of road deaths in India are among users of motorized two-wheelers.(2)It was found that about 40 to 50 percent of those injured and more than one-third of those killed in two-wheeler crashes are found to have sustained brain injuries such as concussion, contusion and hemorrhage(3). According to Indian head injury foundation, over 1.5 million people suffer from head injury and brain trauma every year. India is where 60% of Traumatic brain injury cases are caused the road accidents and the victims usually pedestrians and motorcyclists(4).Helmets as a protective measure have been identified to be effective towards head injury prevention(5).Asian countries, in particular, are expected to experience a considerable rise in the number of motorized two-wheeler vehicles on their roads(6).

Even though Karnataka Government enforced partial, mandatory helmet law for riders in 26 district headquarters of Karnataka on January 2016. in this study we have explored the reasons for non-usage of helmets.

MATERIALS AND METHODS
Study setting
This study was conducted in the district headquarters of Gadag, Karnataka. data was obtained by stopping the vehicles of the two wheeler users those who didn't wearied helmet.

Study design
A field basedcross sectional study was conducted to explore the reasons for non-usage of helmets,purposive sampling technique was used to obtained the data. A pre-tested semi-structured interview schedule was used for the collectionof data at road side and in the parking area.

Participants
Those who didn't wear the helmet while riding a two wheeler and those who given oral consent participants were recruited in the study.

Variables
Independent Variables demographic variables such as Age, Gender, Marital status, Education status, Occupation, family belongs.

Dependent variables Vehicle details(License, ownership of vehicle, type of vehicle, capacity of vehicle, Mirrors, IND number plate) and reasons for not wearing helmet.

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Sample Size
Totally 106 riders of two wheeler were interviewed at road side and in parking area.

Statistical analysis
Data was entered into SPSS version 20, descriptive variables were expressed in frequencies and percentages.

RESULTS
In the current study majority of the the study participants belongs to adult age group and males. Completed PUC, performing skilled work, belongs to above poverty line and married peoples were not wearied the helmets.(Table 1)

It was found out that majority of the two wheelers had more than 1 year experience in riding the two wheelers and have driving license. They wereriding their own vehicles , which has 100cc capacity. Majority of vehicles has one side mirror and IND number plate. (Table 2)

The reasons for non-usage of helmet was hot climate and excessive sweating followed by discomfort to wear and hair loss or alters their hair style (Table 3)

In the current study it was found that majority of participants responded that helmet wearing was necessary for law purpose followed by to preventing head injury and less than twenty percent of participants perceived that helmet was required while riding in the highway roads(Table 4).

More than half of the two wheelers opined that helmet was not required during summer season because of hot climate and for riding a short distance (Table 5).

DISCUSSION
During a motorcycle crash, the rider is thrown forwards / backwards or falls to the side hitting an object depending on collision patterns. When a rider's head hits an object, the forward motion of the head is stopped but the brain continues to move until it strikes the inside of the skull. It then rebounds hitting the opposite side of the skull. The resulting damage can vary from minor head injuries to instantaneous death depending on the amount of energy transferred to the injured person in a crash. If the rider is unprotected, the amount of energy transfer will be much higher and injuries are severe or sometimes death.

Vehicle characteristics
In the current study more than one third of the people have their two wheeler driving licence while riding two wheelers. A similar advise found in the World Health Organization report(7) and in the association of Southeast Asian Nations study(8).

More than one third of the people riding their own vehicle, a similar findings found in review study by Harvard university(9).

In the current study more than half the riders riding more than 100cc engine capacity two wheelers. The similar findings found in study conducted at Hyderabad of India(10).

In our findings nearly half of the study participants have less than 1 year in experience of riding of two wheeler. Same findings found in study conducted at Malaysia(11).

This was the first study conducted to assess the compliance related to vehicle mirrors and IND number plate, no other study found to compare.

Reasons for non-usage of helmets
In the current study majority of the participants responded for non-usage of helmet was hot climate and excessive sweating. the similar opinion found in world health organization report(12) and in study conducted at California(13), Iran(14).

Some people felt that helmet wearing was discomfort to them, a similar findings found in study conducted at Pakistan(15).

Few participants perceived that helmet wearing will cause hair loss and alters their hair style, similar findings found in study conducted at Bangalore city(16).

Necessity of helmet usage
In our findings many participants perceived that necessity of helmet wearing was to follow the legislation. A similar results found in study conducted at Kerala(17).

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Some people expressed that helmet wearing will helps to prevent head injury, a similar expression found in China(18), United States(19) and in Florida(20).

Few participants opined that for travelling in highway they need helmet, same findings found in Thailand (21), Tamilnadu (22) and in Germany(23).

Responses about not required a Helmet

Many people opined that they do not need helmet for riding a short distance, a similar results found in Tanzania(24).

CONCLUSION

Most of the two wheeler users were in the adult age group and reasoned discomfort and hinders to visibility as a common for non-usage. Majority of them perceived that helmet wearing was necessary for since law requires it and few were opined that helmet was not required for riding a short distance.

LIMITATION OF THE STUDY

In the study area partial helmet law was in force so that we had interviewed only riders.

RECOMMENDATIONS

There is a need to strengthen legal enforcement of helmet wearing and ensuring the availability and accessibility of quality helmet to the majority of commercial motorcyclists. There is also a need for regular education campaigns to foster positive attitude towards helmet use.

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TABLES

Table1: Socio-demographic characteristics of the study participants

CHARACTERISTIC	FREQUENCY (%)
Age group	
15-25	15 (14.2)
26-35	19 (17.9)
36-45	38 (35.8)
46-55	21 (19.8)
56&above	13(12.3)
Gender	
Male	87 (82.1)
Female	19 (17.9)
Educational status	
Illiterate	09 (08.5)
Primary school	07 (06.6)
Middle school	23 (21.7)
High school	21 (19.8)
Post high school	25 (23.6)
Graduate	13 (12.3)
Professional	08 (07.5)
Occupation	
Unemployed	15 (14.2)
Unskilled worker	34 (32.1)
Skilled worker	49 (46.2)

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Professional	08 (07.5)
Marital status	
Unmarried	29 (27.4)
Married	77 (72.6)
Family belongs	
Below poverty line	38 (35.8)
Above poverty line	68 (64.2)

Table 2: Distribution of vehicle characteristics

Category	Frequency (%)
Driving licence	
Yes	89 (84.0)
No	17 (16.0)
Status of ownership of vehicle	
Owned	85 (80.2)
Not Owned	21 (19.8)
Capacity of vehicle	
<100cc	29 (27.4)
>100cc	77 (72.6)
Experience of usage two wheeler	
Less than 1 year	43 (40.6)
More than 1 year	63 (59.4)
Mirrors	
No mirror	17 (16.0)
One side	46 (43.4)
Two sides	43 (40.6)
IND number plate	
Yes	69 (65.1)
No	37 (34.9)

Table 3: Reasons for non-usage of helmet among two wheeler users

Category	Frequency (%)
Not willing to wear	05 (04.8)
Police will not catch	07 (06.6)
Hinders visibility/hearing	12 (11.3)
Due to hot climate and Sweating	43 (40.5)
Hair loss / alters hair style	17 (16.0)
Discomfort to wear	22 (20.8)

Table 4: Responses about necessity of helmet usage

Category	Frequency (%)
For high speed riding	06 (05.7)
When police is monitoring	09 (08.5)
To prevent head injury	32 (30.2)
While travelling in highway	19 (17.9)
To follow the legislation	40 (37.7)

Table 5: Responses about when they do not required helmet

Category	Frequency (%)
When riding for a short distance	21 (19.8)
When I don't anticipate meeting a policeman	16 (15.1)
During the hot weather	58 (54.7)
Weekends /nighttime	11(10.4)

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A SURVEY OF CONSUMPTION PATTERN OF FINANCIALLY INDEPENDENT MALES

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ABSTRACT
With change of time and with different investment alternatives available, there has been a change in consumption pattern of society. With multiple competing options, people distribute their finite resources among unlimited alternatives receiving varying degree of return, liquidity and flexibility. Various intervening factors like financial status, social status, marital status, qualification, number of dependents, gender role perceptions etc. also have a huge influence on financial behavior and consumption pattern. The present study is based on an empirical survey made by the authors to assess the consumption pattern of financially independent men. For the purpose of study, a self developed questionnaire was used and was administered on men belonging to different age groups and financial status. The variables considered for study are investment decision and choices, decisions regarding purchase of capital goods and consumption goods, personal autonomy in economic decision making and decision making for families. The results show that the men are autonomous in decision making process, responsible towards their families, concerned about their financial future, have patriarchal attitude in dealing with outside society, dominant in decision making, self reliant but lazy in matters of small value purchases.

KEYWORDS: consumption, savings, finance, investment, share, insurance, capital goods.

INTRODUCTION
Financial independence is not about how much money someone has, rather it's about making the right decisions with the money one has at his/her disposal. Considering the complexities and range of financial products and services existing in the market it is essential for one to be well versed about his/her investments. Gender is a prime factor out of all other factors that influence consumption and investment pattern. The perceptions towards decision making for important financial decision depend on gender to a large extent. Traditionally, men have led financial investment decisions for the family. Men usually have different consumption pattern due to difference in their upbringing and socialization. The chain of hierarchy in society provides men with a better opportunity of taking independent decision. This makes men lot more confident when it comes to handling money. Nowadays there is a plethora of investment alternatives, each associated with risk return trade off.

From a patriarchal perspective men have the onus to provide bread for the family. This makes savings their topmost priority. Men use a goal oriented approach to saving and investing and have well chalked plans for different goals such as car, house, marriage, retirement etc. Men are proactive investors and they always look towards opportunity to increase their disposable income. They also have a higher propensity to keep aside an emergency fund, plan for retirement, children's education, and have both medical and health insurance. With many familial obligations to fulfill men's investment are mainly returns oriented. While significant strides have been made to bridge the gender gap but still, there are discernable differences between how men and women perceive financial freedom and act on it.

Under this backdrop, the present paper aims to study how financially independent males decide to distribute their limited income among unlimited investment and consumption avenues through a survey conducted on a representative sample residing in and around Kolkata.

REVIEW OF LITERATURE
Singh and Kaur (2018) stated that men are confident about their financial knowledge and financial future. They have a dominant role in investment decision making and do not find investment procedure to ignite stress among them. Praba (2016) found that men are risk tolerant and they have a tendency to borrow funds to meet their expenses. They invest whenever free money is available to them. Men also hold an independent investment decision making status within the family. Srijanani and Vijaya (2018) also said that men are gamblers of risk. They exhibit huge confidence while making their investment decisions and for that reason they receive better investment information. According to Jurkovicova (2016), men usually do not take advice from friends and acquaintances in matters of investment. They usually don't suffer from the fear of financial loss. According to Byrnes et al (1999), men were ready to take risk even when it was bad choice to make investment as a result of which their success rate in investment was high.

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Powell and Ansic (1997) found that gender has an inevitable role to play for confidence building in investment decisions. They said one of the main reasons for investment by men was their focus on return. Men exhibited confidence in their decision making. Sharma and Vasakarla (2013) stated that a regularity of investment in financial market has been observed for majority of men. Majority of men were found to be risk lover and willing to take calculated risk. Majority of men preferred to invest more in mutual funds and stock markets than investing in savings deposit and fixed deposit. Bhushan and Medury (2013) also studied men's behavior of investment and found that majority of men have inclination towards investment in health insurance, life insurance, fixed deposit and having a portion of investments in recurring deposits in post offices. They are risk seekers as well and many among them have mutual funds, derivative investments and have investment in stock market. According to C.M Indira and Naidu (2016) men channelize savings into retirement benefits.

Analyzing purchasing behavior, Siddiqui (2016) found that men exhibit different purchasing behaviors, they are more externally focused and show different inconsistent behaviors when they buy goods or services. They are more analytical and calculative and tend to make their opinion based on other people purchases rather than trying it themselves. They also make purchases on the basis of their immediate needs. According to Kusa et al (2014) men do not have a great inclination towards well known brands and always have a time starved schedule. So shopping for them is time bound activity. They also do not indulge themselves in product price comparison between shops. According to Chahal (2015), online shopping is greatly influenced by age and gender of the buyer and the increase in rate of online shopping has a great bearing on these factors. The findings suggest that the young generation is very keen to shop online. Their research exhibited that consumers from male group are very interested in online shopping.

OBJECTIVE OF THE STUDY

Financial independence gives liberty to an individual to spend money according to his choices. From the review of literature it is found that men exhibit a distinct pattern in their choice for investment, consumption and savings. They are also more autonomous in economic decision making process. It is also observed that no study has been undertaken especially on men in eastern India to assess these features. Under this backdrop, the present paper makes an empirical survey among select sample of financially independent men residing in Kolkata to assess their investment, savings and consumption behavior.

DATA AND METHODOLOGY

To fulfill the objectives of the study, a survey was conducted in April-May 2020. The survey instrument was a closed ended questionnaire containing questions relevant to the issue of study. The questionnaire was divided into 3 broad sections namely investment decision and choices, decision of purchasing goods and personal autonomy in economic decision making. For the purpose of study 50 working men were selected through purposive sampling technique. The sample was such drawn that men of different age category and financial status came under the purview of study.

Due to lockdown of the nation announced by the Honorable Prime Minister of India as a result of Corona virus, face to face interview was not possible and interview was conducted with the respondents by the researchers over phone and the data was so obtained. Confidentiality of the data was ensured to the respondents. The data obtained were tabulated in Ms-Excel and analyzed. The information collected has been explained through charts which represent what proportion of men responded positively/negatively under which broad sections and meaningful inferences are thus drawn.

FINDINGS FROM THE SURVEY

Investment decision and choices	Responses percentage
Type of investors	Conservative: 28% Moderate: 44% Aggressive: 28%
Mutual fund investment and premium paid	No investment: 22% Below Rs 5000: 30% Above Rs 5000: 48%
Life Insurance policy and premium paid	No Policy: 20% Premium Paid: Below Rs 5000: 26% 5000-10000: 28% Above 10000: 26%
Regularly keep aside a percentage of income for investment	Yes: 100%

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purpose	No: 0%
Preference of Government scheme or private scheme for investment of savings	Government: 44% Private: 56%
Investment in Stock/share market	Yes: 74% No: 26%

- Majority of working men (44%) were moderate investors, 28% were aggressive investors and 28% were conservative investors. Aggressive investors were engaged in day to day investment in stock market with objective of earning high return.
- 48% of working men invested in mutual fund and paid premium more than Rs 5000 while 30% paid below Rs 5000. 22% of the working men had no investment in mutual fund and they were mostly in the income group of below Rs 20000 per month. They were much concerned with day to day daily necessities, children's education and families' health. They considered investment in mutual fund to be a risky venture as that might erode their savings.
- 26% of working men paid insurance premium of Rs 10000 or above and they opined that safety of their family and parents were their primary responsibility. 28% paid premium between Rs 5000 to 10000, followed by 26% who paid below Rs 5000. 20% of working men did not pay any insurance premium.
- 100% of working men said that they keep aside a percentage of their income for investment purpose which shows compulsory savings behavior.
- 56% working men said that they prefer to invest in private schemes compared to 44% who preferred government schemes. More number of working men preferred private schemes because of higher return, flexible time duration, lesser paper work and faster processing period.
- 74% of working men invest in stocks/share market since they wanted faster returns at higher rate, compared to 26% of working men who considered it to be pouring of savings into risky well.

Decision on Capital goods and Consumption Goods	**Responses percentage**
Do you regularly purchase or invest in jewellery?	Yes: 92% No: 08%
Do you take independent decision while purchasing capital goods?	Yes: 90% No: 10%
Who takes the final decision for purchasing a home durable like AC?	Only myself: 78% Other family members: 22%
Who negotiates with labourer/contractor for modification of the house?	Only me: 84% Other family members: 16%
Do you take final decision for purchase of consumption goods?	Yes: 54% No: 46%
Would you substitute consumption goods if price increases?	Yes: 42% No: 58%
Do you always buy goods of reputed brands?	Yes: 70% No: 30%
Do you prefer to buy goods in bulk or in small quantities daily?	Daily Purchase: 0% Bulk Purchase: 100%

- 92% of working men have investment in gold for their wives/ other family members while 8% were interested in other sectors of investment. Most men opined Gold to be 'Stridhan' for women and it is also a sacred symbol of goddess Laxmi.
- 90% of working men took independent decision for purchase of capital goods. Only 10% were dependent on family for taking such decisions. Thus, autonomy is seen in decision for purchase of capital goods.
- 78% of working men said they took final decision of purchase of any home durable like air conditioner.
- 84% of working men show patriarchal trend and prefer to negotiate themselves with laborer/contractor in case of modification of house.

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- 54% of working men themselves took consumption goods purchasing decision since they opined that they were better bargainers with shopkeepers and had better knowledge about the rate of each commodity, compared to 46% working men whose wives or family members took such decisions.
- 58% of working men would not prefer substitution of consumption goods even when there is an increase in price while 42% preferred substitution.
- 70% of working men preferred goods of well known brands for their families. They preferred so since they opined that health of their family was their primary concern.
- 100% of working men prefer to purchase goods in bulk. They do so because they consider it to be their responsibility to supply consumption goods for smooth functioning of household work.

Personal autonomy and considerations for economic decisions	**Responses percentage**
Whose advice do you seek while making investment decisions?	Wife or family members: 28% Self decisions: 72%
Do you prefer to take the final economic decision independently?	Yes: 100% No: 0%
Do you save money for your family?	Yes: 100% No: 0%
Which is the primary consideration for your investment decision?	Safety: 30% Liquidity: 34% Return: 36%
What is the most important reason of your savings?	Child's education: 20% Property purchase: 10% Future medical treatment: 40% Child's marriage: 20% Income Tax benefit: 10%
Do you take your family to restaurants?	Yes: 74% No: 26%
Do you go out and purchase apparels for family members?	Yes: 30% No: 70%
Do you have or intend to have savings/fixed deposit for your children?	Yes: 100% No: 0%

- 72% of working men prefer self decision for selecting avenues for investment and 28% takes advice of wife and other family members.
- 100% of working men prefer to take the final economic decision independently.
- India traditionally followed the patriarchal system where the responsibility of earning the livelihood and securing the future of their families rested on males. It is also reflected here as 100% of working men save money for their families.
- The sample was asked to choose among safety, liquidity and return as their primary consideration for investment and it was found that all these three were given importance. 36% of the men invest for the purpose of earning return, 34% of men invest for the purpose of maintaining liquidity and 30% save for the purpose of safety.
- Mixed responses according to personal perceptions were obtained while the sample was asked to point out the single most important objective for their savings. 40% of men save for future medical treatment, 20% save for children's education, 10% save for property purchases, 10% save for income tax, and 20% save for child's marriage.
- 74% of men prefer to take their family out to restaurants and 26% does not. Majority of men preferred to take family out to restaurants since it is a sort of recreation for them, a symbol of maintaining status in the society and happy outing for family as well.
- 70% of men do not prefer to purchase apparels for their family members. Majority of men prefer that someone else do their shopping. They prefer clothes which are shopped and brought to them as it saves

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their time and effort. Majority of men tend to be hedonic shoppers, that is, it is necessary to inform them why they will purchase the product.

- All men (100%) intend to have savings and fixed deposit for their children. Majority of men already have savings and fixed deposit for their family and it in turn secures the future of their children as well.
- On enquiry of the sector where the respondents have increased their investment in recent years, it was found that 60% of them have increased investment in bank deposit, 20% have increased investment in post office savings and 20% have increased investment in life insurance premium.

DISCUSSION

The study mainly focuses on how financial freedom of men influences their consumption and investment choices. It has been found from the survey that financial freedom has significant impact on investment decisions of men. Working men are found to be gamblers of risk, they are well researched investors, have investment in mutual funds backed by risk calculations so that they can avoid the procedure of principle erosion while aiming of higher return, and schedule the investment that will secure the future of their family members in order to protect them from any damage arising from future medical and health contingencies. Studies of Bhushan and Medury (2013), Praba (2016), Srijanani and Vijaya (2018) are in consistency with this result. Men were found to keep investment decision confidential and restrained from sharing their whereabouts with friends and acquaintances. A fact similar to this has been found by Jurkovicova (2016) in his study. Future safety has been a matter of primary concern for working men and they initiate budget allocation for such purposes. This concern also considered being part of their responsibility and they try to compulsorily secure future of their children. Insurance has been another sector where working men take interest and is a secured sector to indulge their savings. Bhushan and Medury (2013) also summed up a similar relationship between men and insurance. Working men, being positioned in the upper level in hierarchy of decision making in patriarchal society, takes important decisions such as purchase of capital goods and following the lineage, they rely on self decisions. This idea has been duly supported by Singh and Kaur (2018) in their studies. Working men are hedonic shoppers. They will purchase a commodity only when they are assured that they require it and for that reason they prefer to shop according to their time starved schedule. They prefer to purchase in bulk and rarely makes comparison between shops. A similar analysis has been exhibited by Kusa et al (2014). Men, although being calculative, keep a confident foot in risky investments that result into high success rate for them. This is similar with the findings of Byrnes, Miller and Schafer (1999). It is seen that while investing money, the rate of return has been the main point of attraction for men. This fact has been supported by Powell and Ansic (1997) in their study. Men are technical buyers and follow the footstep of their fellow investors to get pre-acquainted with the risk associated with a venture. A similar conclusion has been drawn by Siddiqui (2016) in his study. Online shopping has been considered to be a relief to working men in their time starved schedule. A similar fact has been exhibited by Chahal (2015) in her study. Many men consider growth in earning to be more important than safety of earnings which influence them to prefer mutual funds over savings or fixed deposit. A study consistent with this has been conducted by Sharma and Vasakarla (2013).

CONCLUDING REMARKS

The survey among financially independent men carried out in the city of Kolkata give many results similar to ones carried out by other researchers in other socio-economic setups. Variation in time of survey and place of survey has not affected the results much. Men are found to be autonomous in decision making processes, responsible towards their families, concerned about their financial future, patriarchal in dealing with outside society, dominant in decision making, self reliant but lazy in matters of small value purchases. The results show that risk taking and caring for family are two issues consistently taken into account by the sample even with small savings. Habit of compulsory savings along with concern for return, liquidity and flexibility has caused the sample to select multiple investment options with varying degree of these variables. It is also seen that while making high value capital expenditure the sample shows more autonomy and restrict the final judgment to themselves; but in case of low value revenue expenses, the sample want to delegate the responsibility to someone else or go out and purchase in bulk.

The study, though carried on a small sample in a limited geographical area, is significant in portraying the consumption and investment pattern of financially independent men. By taking a note of the findings, decision makers may devise modifications in their targeted issues.

LIMITATIONS OF THE STUDY

- The study area was restricted to Kolkata city only (urban area). A larger survey area might give a different picture.

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- The sample selected is small when compared to total target population.
- The survey was carried out in April-May 2020 when the economy was facing downsizing and financial crisis. A different time of survey might have given different views.

In spite of above limitation the study has made an honest attempt to portray the issue chosen for study.

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AN E-LEARNING APPLICATION TO PROVIDE VIDEO LESSONS

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ABSTRACT
Video Tutorials application is specifically designed for students studying in higher class schools. It can help the students with videos on the selected topic, which has been categorized in physics, chemistry, and maths. There has been mostly designed according to Maharashtra State Board Syllabus, This Application also consists of uploading features, where students can upload their own set of videos by Login. The Prototype of these models was designed using the waterfall Model by the developer. The Performance of the Model was very scheduled and designed as simpler to understand by the user. This model was developed using java and XML Language which has been designed using the Sketchware IDE. The Benefits of this software are very user friendly and provide features of every component and widgets which are even available at sketchware store. The intimated target or GUI also able to Design the Web app and Standalone Application.

Index Terms- Development, Prototype, Tutorials, Video Tutorial, E-Learning, Social Engineering, Language.

I. INTRODUCTION
Generally, there is a presence of major learning websites and applications where a user can get related information and reading material [6]. This application provides the user supports which helps the user to recognize the topics using Filter, thus they can search according to categorized videos [4]. Existing systems are also available, even that videos can be saved as bookmarks or saved videos that can be shared across multiple platforms [8]. These videos are also available on youtube one can directly fetch that videos from youtube if they don't want to sign in an application they can copy URL, which are also available on another platform [6]. Hence, an accurate selection of videos can be done by the user. Topics included in the application are selected content that is available to the user as they are public and free of cost [1]. The deep learning experience can be gained by the user as the algorithm is used to make ease use of learning by the student.

II. PROBLEM DEFINITION
To provide an e-learning platform for high school integrating and categorizing videos based on all the subjects covered under the specific course in a robust and user - friendly interface.

III. LIMITATION OF EXISTING SYSTEM
Many Developers in the android field have been working to obtain the accurate set of videos that lacks in boards platform. May differ from topic to topic and which is not cross-platform where users can change the platform according to their needs. So the data of learning videos provided by many developers or professors were specific according to boards of students.

Need of Mobile Learning
E-learning exploits interactive technologies and communication systems to improve the learning experience. It has the potential to transform the way we teach across the board. It can raise standards and widen participation in lifelong learning. It cannot replace teachers and lecturers, but alongside existing methods, it can enhance the quality and reach of their teaching [1]. Social networking services (SNS) are increasingly popular amongst Australian young people regardless of geographical location, background, and age. They include services such as Facebook.com, MySpace.com, and Bebo.com which have many millions of members each [3]. It also includes services, such as Elftown.com (for fans of fantasy and science fiction) and Ravelry.com (for fans of knitting!) with small numbers of members, often connected by a specific common interest. Furthermore, many services created for media sharing (e.g. Flickr for photo sharing, Last [7]. This framework consists of two levels of research and analysis [9]. First, is the mobile connectivity which focuses on the applications and technology used by commercial establishments to extend electronic commerce and second is the e-earning, which focuses on the use of the Internet and other ICT in education.

IV. LITERATURE SURVEY
Today over 6 billion people have access to a connected mobile device and for every one person who accesses the internet from a computer two do so from a mobile device [8]. Mobile technology is changing the way we live and it is beginning to change the way we learn. Mobile learning involves the use of mobile technology, either alone or in combination with other information and communication technology (ICT), to enable learning anytime and anywhere. Learning can unfold in a variety of ways: people can use mobile devices to access

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educational resources, connect with others, or create content, both inside and outside classrooms [2]. Mobile learning also encompasses efforts to support broad educational goals such as the effective administration of school systems and improved communication between schools and families [6]. Social Engineering (SE) is a blend of science, psychology, and art. While it is amazing and complex, it is also very simple. We define it as, Any act that influences a person to take any action that may or may not be in their best interest. We have defined it in very broad and general terms because we feel that social engineering is not always negative, but encompasses how we communicate with our parents, therapists, children, spouses, and others [2]. A survey of the US mobile industry found that mobile device sales grew by 402003, and predicted that PDA/mobile phone sales will outstrip PC sales by 2005 with the majority of companies switching to wireless networks by 2008 (Ellis, 2003) [3]. Computing devices have become ubiquitous on today's college campuses. From notebook computers to Wireless phones and Handheld devices 1 (or W/H devices for short), the massive infusion of computing devices and rapidly improving Internet capabilities have altered the nature of higher education (Green, 2000). Computer Assisted Learning (CAL) has proliferated tremendously in the last few decades with the use of Internet, email, multimedia technology, and intelligent tutoring system on campus [2]. A 2000 Campus Computing Survey revealed that the majority of college professors use email to communicate with their students, and approximately one-third of college courses utilize CAL technology (Green, 1999) [4]. Similarly, Jones (2002)reports that a great majority of college students own computers and wireless devices with almost 80 percent believing that Internet use has enhanced their learning experience.

V. REQUIRED TECHNOLOGY

Android is a mobile operating system (OS) based on the Linux kernel and currently developed by Google. With a user interface based on direct manipulation, Android is designed primarily for touchscreen mobile devices such as smartphones and tablet computers, with specialized user interfaces for televisions (Android TV), cars (Android Auto), and wrist watches (Android Wear) [8]. The OS uses touch inputs that loosely correspond to real-world actions, like swiping, tapping, pinching, and reverse pinching to manipulate on-screen objects, and a virtual keyboard [8]. Despite being primarily designed for touchscreen input, it also has been used in game consoles, digital cameras, and other electronics [7]. Android is the most popular mobile OS. Androids open nature has encouraged a large community of developers and enthusiasts to use the open- source code as a foundation for community-driven projects, which add new features for advanced users or bring Android to devices which were officially released running other operating systems [3]. The operating system's success has made it a target for patent litigation as part of the so-called smartphone wars between technology companies.

SYSTEM ARCHITECTURE

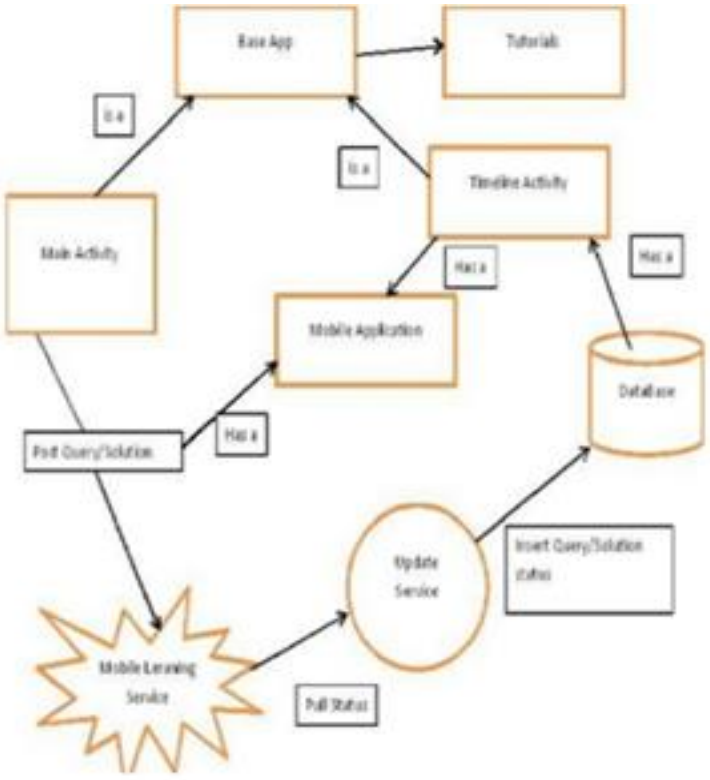

Fig 1. System Architecture

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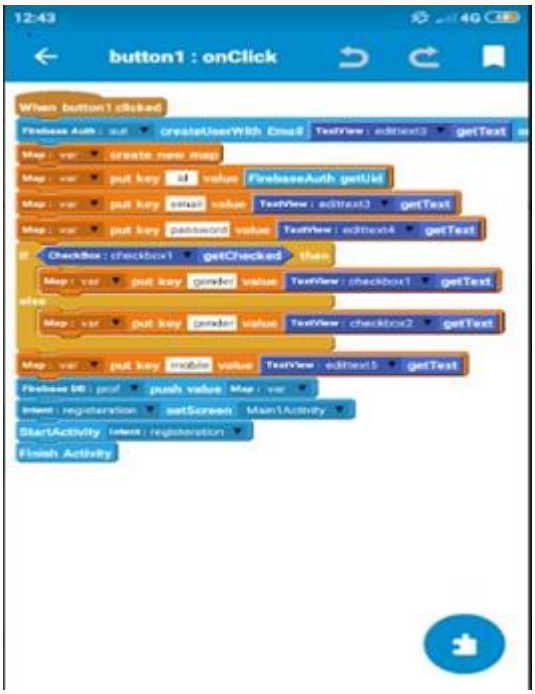

Fig 2. Database handling

These architecture of an application derives the working of system from mobile application to database of system [4]. It derives the configuration rate of sql engine, how it pull the status and accommodate the request of user

VI. PROPOSED MODEL

The development of video tutorial mobile applications is not an easy task. In this paper, we present the main steps in the development of a mobile learning application for Android. The client application communicates with the server using Web services to download the application [4]. The system developed includes the testing module. The testing result showed that the system worked correctly [7]. Next step, we are going to evaluate the prototype to assess the learning efficiency and effectiveness of this system. This system will persist to grow and the future work will include improving the content of the system by adding more modules and multiple-choice questions, creating more assortments of interactive learning options for the system, continuous enhancement of the system to continuously suit the students' needs and further experiments will be conducted for a longer period.

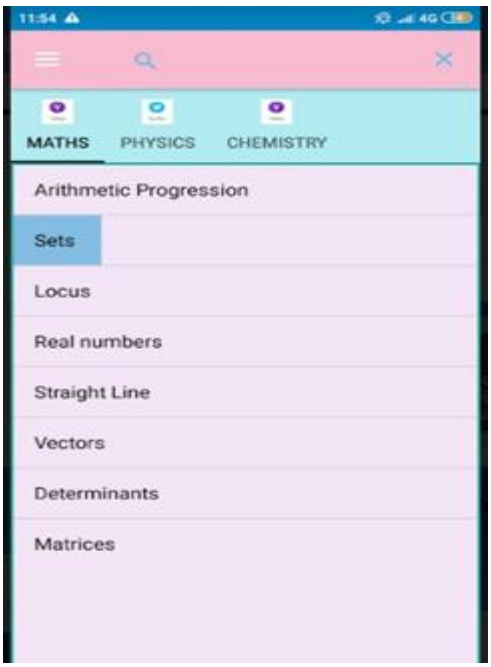

Fig 3. System Implementation

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Event	Trigger	Source	Use case	Response	destination
User click on registration	Account registration request	User	Creating an account	Account creation status	User
Users clicks on login	Request for logging into account	User	logging into users account	login status	User
Categories of courses	course list request	Database	display course list	course list retrieval status and output	User
Load list of videos	videos request	User	display all videos and post	video retrieval status	User
feedback page	feedback request	User	Enter input for user experience	feedback sending status	database
Add Category	Create more Section	Admin	Edit ViewPager	comment response	database
Logout	Logout request	User/admin	Logout proccessing	Logout from database	database

Fig 4. Event table

In the given proposed model Fig 3. Explains screen activity of system implementation and its working architecture which is the main part of application and fig 4. Explains its event table and triggering the activity of database actions of users and admin.

VII. FUTURE SCOPE

- Some of the future scopes that can be done to this system are:
- To provide a stronger platform for the users to learn in very innovative way which can help the students to get fulfill with all the related to current topics and trending learning ideas.
- Providing the system with video library which will help the students to download and watch the educational video whenever they want it will be supportable feature for all learners.
- Developing a very friendly design which will lead the user to every module very easily without any difficulty.
- Adding features to the system where the user can also sync the data for later use in case of no internet connection.

VIII. CONCLUSION

Our application can be installed only on android platform phones. This application consists of the real-time e-learning plus social engineering concept that provides a reliable mobile learning application. In case you are offline then also one can learn from this app. This application consist of the two-part first part has the tutorial part where the learning contents are placed and in the second part chat room is available for the user. If any query occurs to the user then he/she will fire it in the chat room. The user (expert) on the other side will provide the solution to the user's query thus this application is a real-time application and provide free of cost e-earning [6]. The application we are going to develop is reduced all the drawbacks of the existing system. This application is based on the smartphone. Nowadays most people use it. So the application has lots of Scope area. The Application provides a reliable and convenient way for mobile learning.

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CONSTRAINTS FACED BY PADDY GROWER FARMERS INAURAIYA DISTRICT OF WESTERN UTTAR PRADESH IN INDIA

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ABSTRACT
India is one of the world's largest producers of paddy. In case of paddy production and marketing technical problems, financial problems, marketing problems, management problems and miscellaneous problems were ranked I, II, III, IV and V. Suggestive policy implications to overcome the production and marketing constraints of paddy: Farmers to be trained through designated extension agency/services by participation directly or availing demonstration at their own farm in order to update latest farming technology and management of paddy. Marketing through co-operative/SHG may help to solve the many problems of the producers & marketing cost can be reduced. Input supply should be linked with co-operative marketing system to help the producers & traders. Form advisory services should be available at Blockhead quarter to improve the close contact within farmers and extension workers.

Keywords: Constraints, production, Marketing, Paddy and Policy implication

INTRODUCTION
Rice is the staple food for about 50per cent of the world's population that resides in Asia, where 90 per cent of the world's rice is grown and consumed. In Asia, India has the largest area under rice. It was 44.50 million hectares i.e., 29.40 per cent of the global rice area of the total harvested area, about 46 per cent is irrigated, 28 per cent is rain fed lowland, 12 per cent is rain fed upland and 14 per cent is flood prone. Rice is one of the largest traded commodities in the world with a total quantity touching 16.40 million tones. The South-East countries account for about 40 per cent of the rice trade in the world. In many third world countries, it is main or the only source of livelihood for over 50 per cent of population and contributes roughly the same proportion to the national income.

Uttar Pradesh is another major rice producer in India and ranked as the second largest in the list of top 10 largest rice-producing states in India. Rice is widely grown across the Uttar Pradesh region with a total growing area of more than 5.9 million hectares. The state also has a good rice yield of more than 2,300 kilograms per hectare. Uttar Pradesh contributes more than 13% in total rice production in the country.

In Auraiya district area, production and productivity of paddy 56935 thousand ha, 159670 thousandmt and 30.56 q/ha, (ArthEvamSankhyaPrabhag, Auraiya, 2017-18).

MATERIAL AND METHODOLOGY
The study involves a comprehensive database of which most are primary in respect to their origin. Keeping in view the limitation of material resources and time factor, the study was conducted using sample survey method for collection of the relevant information. Sampling design, method of data collection and specification of analytical tools, all these together, constitute the methodological part of present study.

Sampling technique: The purposive cum random sampling designs were used for the selection of district, blocks, villages and respondents.

Selection of District: Auraiya district of western U.P. were selected purposively to avoid the operational inconvenience of the investigator.

Selection of Block: Out of seven blocks of selected district, two blocks namely Bidhuna and Sahar having highest area under paddy were selected randomly.

Selected of village:A list of all the villages falling under selected block were prepared and arranged in ascending order according to area covered by paddy crop and ten villages were selected randomly from the list.

Table 1: Total households and number of households selected under differentSize group of farms from sample villages

Name of Block	Name of village	Size group of farms			
		Marginal (> 1.0)	Small (1.0-2.0)	Medium (2.0-4.0)	Total

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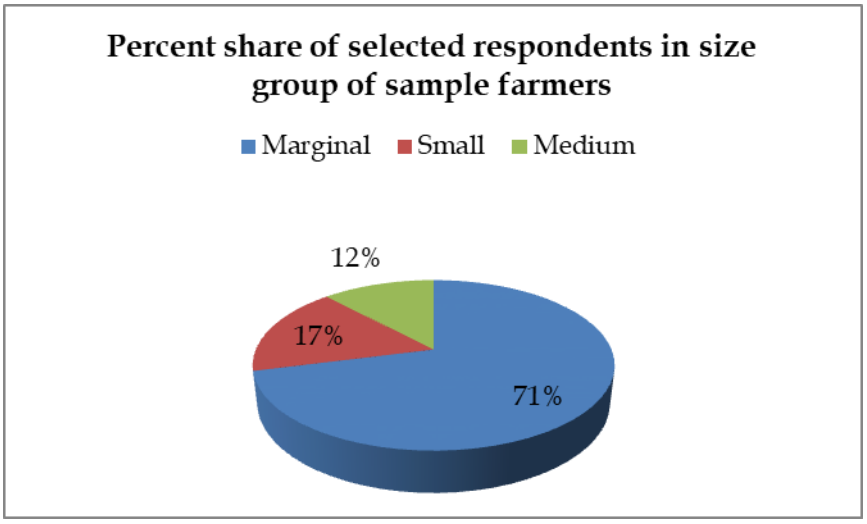
		P	S	P	S	P	S	P	S
Bidhuna	Paliya, Muggpur, PurwaDhane, Belpur Bela and Kalyanpurkakrai (5)	784	36	190	08	106	06	1073	50
Sahar	Thakur Gaon, Aghar, Bhaisodi, Pauthi and Anda (5)	688	35	169	09	123	06	980	50
	Total	**1472**	**71**	**359**	**17**	**229**	**12**	**2053**	**100**

Selection of respondents: Lists of paddy growers of selected villages were prepared along with their size of holding. Thus, the farm holding categorized into three size groups viz. (1) Marginal: (Below 1.0 ha ;) (2) Small: (1.0-2.0 ha ;) (3) Medium: (2.0 to 4.0 ha). Fifty growers from each block were selected randomly in proportion to their number in universe in the each size group. From this list a sample of 100 respondents were selected following the proportionate random sampling technique.



Collection of Data

Primary data were collected through personal interview method on well-structured pre-tested schedule specially designed for this study, while secondary data were collected from published/ unpublished record of district and blocks, headquarters, books, journals, periodicals, news bulletins etc.

The primary data from 100 sample farmers (71 marginal, 17small and 12 medium size-groups) were collected through a well-prepared and pre-tested schedules of enquiry by interview method.

RESULT DISCUSSION

Constraints of production and marketing of paddy

The major problems faced by paddy and wheat growers in study area were analyzed, and presented in Table 2. The response of the sample farms about the problems faced by them have been classified mainly under five types:

Table 2: Constraints of paddy grower farmers under different thematic area on size group of farms.

Thematic area	Marginal farmers	Small Farmers	Medium farmers	Total	Rank
Technical problems	51.04	9.73	6.32	67.09	I
Management problems	27.27	6.57	6.99	40.83	IV
Financial problems	42.08	7.263	4.20	53.29	II
Marketing problems	36.00	6.63	3.99	46.62	III
Miscellaneous problems	22.99	7.10	3.50	33.59	V
Total farms	**71.00**	**17.00**	**12.00**	**100.00**	
SD (CV)	10.08 (28.09)	1.17 (15.68)	1.38 (27.60)	11.42 (23.65)	

1. **Technical problems (Related HYV of seed, Transplanting / Broad casting method, Availability of chemicals'&Harvesting through reaper/ combine):** It was observed during investigation that technical problems were most serious in production of paddy. For paddy, technical problems on marginalfarms were

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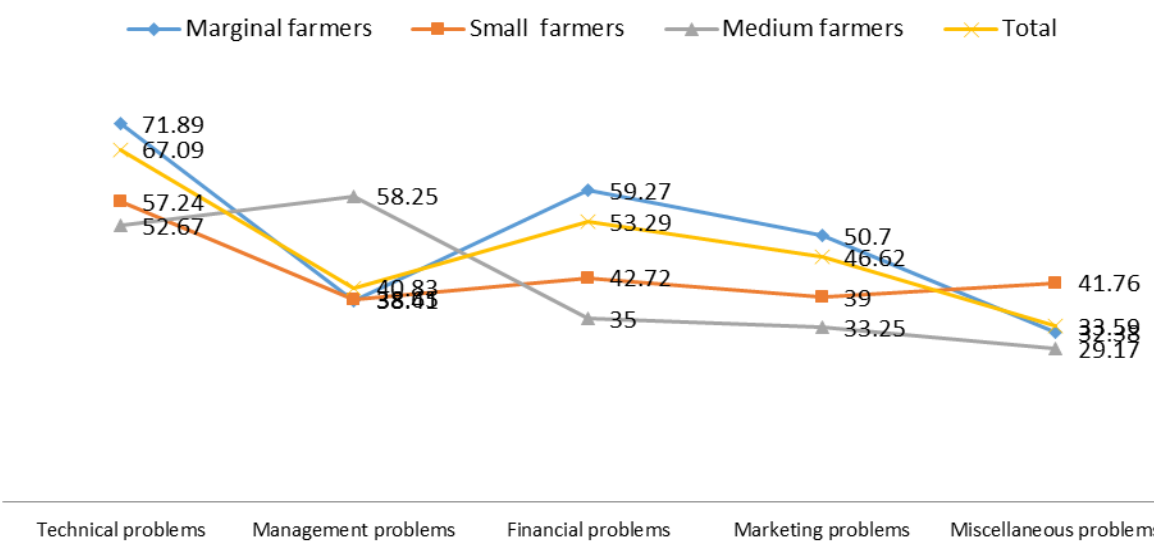
highest (71.89 percent) followed by smallfarms (57.24 per cent) and mediumfarms (52.67 per cent), respectively.

2. **Financial problems (Adequacy of fund, Timeliness, Documents, Bribes&Subsidy):** Financial problems were second rank for crop paddy. For paddy it was highest on marginal (59.27 per cent) followed by small farms (42.72 per cent) and medium farms (35.00 per cent), respectively.
3. **Marketing problems (Processing, Grading, and Transportation&Storage):** The rank third crops paddy were found marketing problems. In case of paddy, it was highest on marginal (50.70 per cent) followed by small (39.00 per cent) and medium farm (33.25 per cent), respectively.
4. **Management problems (Skilled person, trained person&Quick decision person):** Management problems were found as the rank fourth for paddy. In case of paddy Management problems highest on mediumfarms (58.25 per cent) followed by smallfarms (38.65 per cent) and marginal farms (38.41 per cent), respectively.
5. **Miscellaneous problems (Lease & Risk):** Miscellaneous problems rank fifth for paddy.Miscellaneous problems were highest on small farms (41.76 per cent) followed by marginalfarms (32.38 per cent) and mediumfarms (29.17 per cent) for paddy, respectively.

On an average, for paddy, technical problems, financial problems, marketing problems, management problems and miscellaneous problems were 67.09, 53.29, 46.62, 40.83 and 33.59 per cent, whereas, respectively.

Fig. Show in percent of constraints of paddy grower farmers



Suggestive policy implications to overcome the production and marketing constraints of paddy

1. To establish sound irrigation facilities, bio-fertilizer hub at farm level, ensure optimum electricity supply, H.Y.V. of seeds to be used along with timely sowing and improved agricultural implements at cheap rate should be accessible.
2. Adequate and liberalized credit facilities should be extended to the farmers to meet their credit requirements for increasing production and productivity of paddy.
3. Farmers to be trained through designated extension agency/services by participation directly or availing demonstration at their own farm in order to update latest farming technology and management of paddy.
4. Co-operative marketing and processing should be encouraged in order to get credit input, disposal of surplus produce, establishing infrastructural facility and required urgent need of metaled link village road with a view to avail speedy means of transportation.

Remunerative support price should be declared in advance and more government purchase centers should be established in season for better marketing of paddy.Similar studies were also conducted by several workers (Jana and Verma, 2003; Parmar, 2006; Prakash et al., 2003 and Maheriya et al., 2014).

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CONCLUSION

It can be concluded that major constraints experienced by the farmers in paddy cultivation on an average technical problems, management problems, financial problem, marketing problems and miscellaneous problems were rank-I, rank-II, rank-III, rank-IV and rank-V, It's were 67.09, 53.29,46.62,40.83 and 33.59 per cent.Remunerative market prices of paddy, facility of crop insurance scheme in case of failure of season, minimum support price of paddy should be declared well in advance, extension system should be streamlined; proper technical guidance and organization of training to the farmers were important suggestions to overcome/minimize the constraints in adoption of paddy production.

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EFFECT OF SPORTS TRAINING ON SELECTED MOTOR AND SKILL PERFORMANCE AMONG HOCKEY PLAYERS

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ABSTRACT
The purpose of the study was to find out the effects of sports training on selected motor fitness variables and skill variables among twenty men hockey players from Bangalore University College of Physical Education were selected randomly as subjects. The age of the students ranged from 18 to 25 years. The selected subjects were divided into two groups. Group A Control Group B Experimental group was subjected to the training for three days in a week for the period of 8 weeks. The motor fitness variables namely speed and agility were measured by 50 yards dash and shuttle run and dribbling skill. The Data were collected from each subject before and after the training period and statistically analyzed by using dependent't' test and analysis of covariance (ANCOVA). It was found that there was a significant improvement in ladder training group on motor fitness variables namely speed and agility among men hockey players.

Keywords: Speed, Agility and dribbling hockey skill

INTRODUCTION
The term components of physical fitness refers to the several key components required to facilitate quality overall fitness. In most traditional circles, there are considered to be five general components of fitness: cardio respiratory Agility, coordination, flexibility, and body composition, although healthy body composition is most often a by-product of the other components, and is therefore not recognized in some circles as an actual "component" of fitness. Following the five general components of fitness are the components of "motor" fitness, which most affect athletic performance. These include muscular power, speed, balance, coordination, accuracy, and agility. Reaction time is also considered by some to be a component of motor fitness; however, some also contend that it is a type of speed, i.e. "reaction speed". Improvements in endurance, stamina, strength, and flexibility come about through conditioning/training. Training refers to activity that improves performance through a measurable organic change in the body. Concurrently, improvements in coordination, agility, balance, and accuracy are developed through practice. Practice refers to activity that improves performance through changes in the nervous system. Power and speed are adaptations of both training and practice.

The components of fitness each work together to contribute to the ability of the body to handle physical demands. The more efficient the body functions, the higher the level of fitness. Optimal fitness is a combination of lifestyle, nutrition, habits, but it cannot be reached without an appropriate level of physical activity. Optimum physical performance is a combination of all the components of fitness; depending on the specific demands of the sport or activity, some components will require more attention than others, but each should be present as a part of an integrated training program.

"Sport performance is the unit of execution and result of a sports action or a complex sequence of action measured or evaluated according to socially determined and agreed norms."Today we found that human beings have come to understand the importance of raining has also increased to a game and sports in daily life and because of this importance of sports training has also increased to a considerable extent. But this kind of thinking is not new in any way .It is said that around 300 years back, people of Greeks also felt the need to provide training to the player's participatining in Olympic Games in effective and efficient manner. How were, this tendency has become world famous since 1950's and from then people come to realize that sports training is not only important and required for outstanding Players but also for beginning also.

Importance of effective sports training can be measured by the fact. That all other kinds of facilities provide to players may prove to be futile if they are not provided with efficient sports training. No sports man can fulfill his or her potential unless provided with proper training. It can be said that producing the skillful high performers, comprehensive sports training programmed is one of the key factors

Before applying for membership, potential applicants are encouraged to check that they their activity falls under Sport Accord's definition of sport. The Sport Accord Council has developed a definition of "sport" to help them determine whether an applicant federation qualifies as international sports federation. The aim is not to have a general, scientifically sound or static definition, but rather to have a clear and pragmatic description of activities that could be considered as sports.

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SPORTS TRAINING

Sports' training is done for improving sports performance. The sports performance, as any other type of human performance, is not the product of a single system or aspect of human personality. On the contrary, it is the product of the total personality of the sports person. The personality of a person has several dimensions e.g., physical, physiological, social and psychic. In order to improve sports performance, the social and psychic capacities of the sports person also have to be improved in addition to the physical and physiological ones. In other words, the total personality of a sportsman has to be improved in order to improve his performance. SA sport training, therefore, directly and indirectly aims at improving the personality of the sportspersons. No wonder, therefore, sports training is an educational (i.e., pedagogical) process.

According to Bucher (1958) Physical fitness is "the ability of an individual to live a full and balanced life. It involves physical, mental, emotional, social and spiritual factors and the capacity for their wholesome expression". Physical fitness refers to practical performance of exercise that calls for the number of experiences, they are the feeling of happiness in the process of correct performance of movement, feeling of "confidence, self satisfaction, surprise and unhappy in the process of confusion and disappointment etc.

It is a positive quality, extending on a scale from death to "abundant life". All living individuals have some degree of physical fitness which varies 10 considerably in different people and in the same person at different times2. It is not as broad in its meaning as 'total fitness'. It include, adequate degree of health, posture, physique, proper functioning of vital organs, nutrition, and good health habits along with an adequate amount of endurance, strength, stamina and flexibility Clark and David (1978) .

1.1 Statement of the Problem

The purpose "**Effect of Sports Training on Selected Motor and skill performance among Hockey Player"**

1.2 Significant 0f the Study

1. The study would be helpful to academician, Physical Education Teacher to conduct test to examine the outcome of the players playing ability in Hockey.

2. The present study would throw light on the player's efficiency and necessary modification in training for the coaches.

1.3 Hypotheses

1. There would be a significant difference in speed variable between control and experimental group.

2. There would be a positive effect eight week training agility variable between control and experimental group.

3. There would be significant difference in improving Hockey playing skill through experimental training

METHODOLOGY

The purpose of the study was to find out the effects of sports training on selected motor fitness variables and skill variables among twenty men Hockey Players from Bangalore University College of Physical Education were selected randomly as subjects. The age of the students ranged from 18 to 25 years. The selected subjects were divided into two groups. Group A control group, Group B experimental group was subjected to the training for three days in a week for a period of 8 weeks. The motor fitness variables namely speed and agility were measured by 50 yards dash and shuttle run. and skill variables dribbling The data were collected from each subject before and after the training period and statistically analyzed by dependent't' test which is used to find out the significant improvement on selected criterion variables and Analysis of Covariance (ANCOVA) was used to find out the significant difference between the experimental and control groups on each variables separately. All the cases 0.05 level of confidence was fixed as a level of confidence to test the hypotheses.

ANALYSIS OF THE DATA

The effects of independent variables on selected speed and agility and hockey skill were determined through the collected data by using appropriate statistical techniques and the results are presented below. The analysis of dependent't' test on the data obtained for speed and agility of the pre-test and post-test means of sports training and control groups and experimental group have been analyzed and presented in table

Table: 1.1: Showing the Mean, SD and t-value of 50 meters Dash speed of control group and experimental group

Groups	Pre test		Post test		
	Mean	SD	Mean	SD	Adjusted mean
Control group	7.12	0.33	7.16	0.34	7.16
Experiment	7.09	0.50	7.34	0.23	7.34

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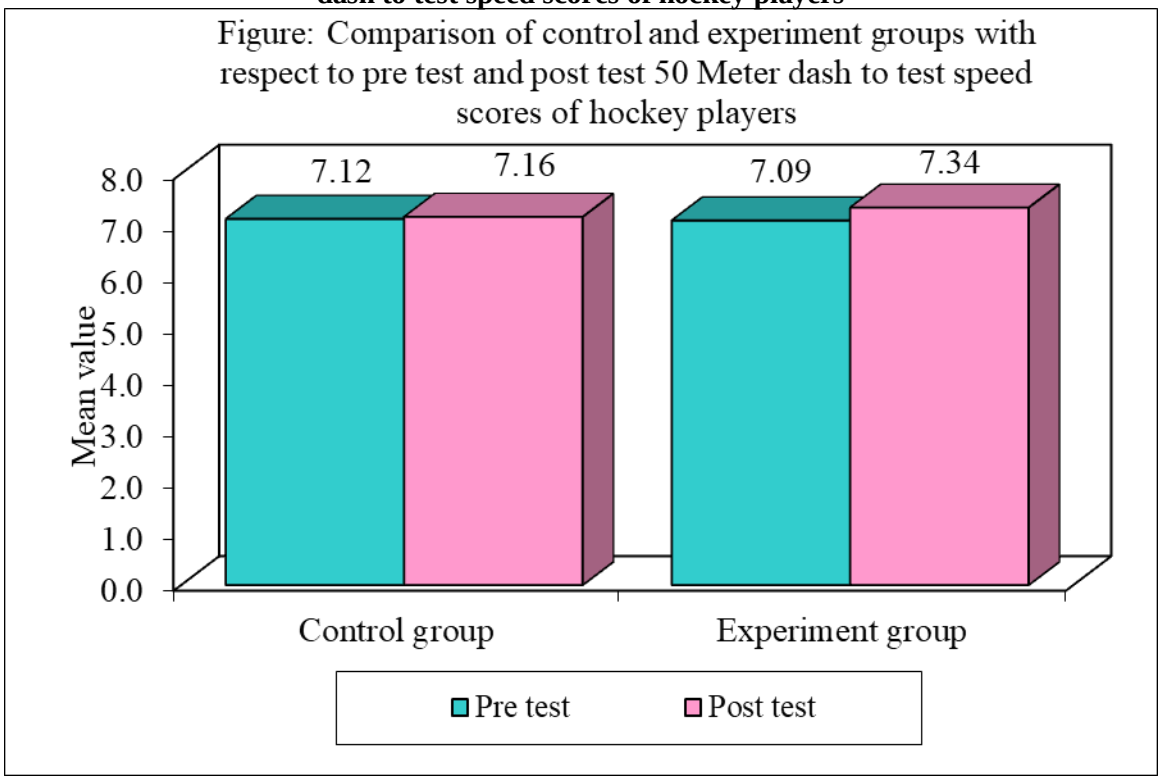
group					
F-test	0.1253@		10.5957#		
P-value	0.7241		0.0016*		

1. A non significant difference was observed between two groups i.e. control group and experiment group with respect to pre test 50 Meter dash to test speed scores of hockey players (F=0.1253, p>0.05) at 5% level of significance. It means that, the pre test 50 Meter dash to test speed scores of hockey players are homogenous and similar in control and experiment group.
2. A significant difference was observed between two groups i.e. control group and experiment group with respect to post test 50 Meter dash to test speed scores of hockey players (F=10.5957, p<0.05) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the post test 50 Meter dash to test speed scores of hockey players are different in two groups i.e. control and experiment group

Figure 1.1: Comparison of control and experiment groups with respect to pre test and post test 50 Meter dash to test speed scores of hockey players



The above figure indicates that speed in both the groups i.e. Experimental and control indicates the influence of speed more on Experimental group. In pre test mean was 7.34 and increased in post test 7.09 where control as group showed very little change in pre test as well as in post test i.e. 7.16 to 7.12 Hence the training for eight week training influenced on the speed of subject.

Table: 1.2: Comparison of two groups with respect to post test scores of shuttle run test for agility of hockey players

Groups	Pre test		Post test		
	Mean	SD	Mean	SD	Adjusted mean
Control group	18.22	0.77	18.21	0.77	18.26
Experiment group	18.36	0.43	18.59	0.61	18.54
F-test	0.0055@		7.9450#		
P-value	0.9413		0.0058*		

- A non significant difference was observed between two groups i.e. control group and experiment group with respect to pre test shuttle run test for agility scores of hockey players (F=0.0055, p>0.05) at 5% level of significance. It means that, the pre test shuttle run test for agility scores of hockey players are homogenous and similar in control and experiment group.

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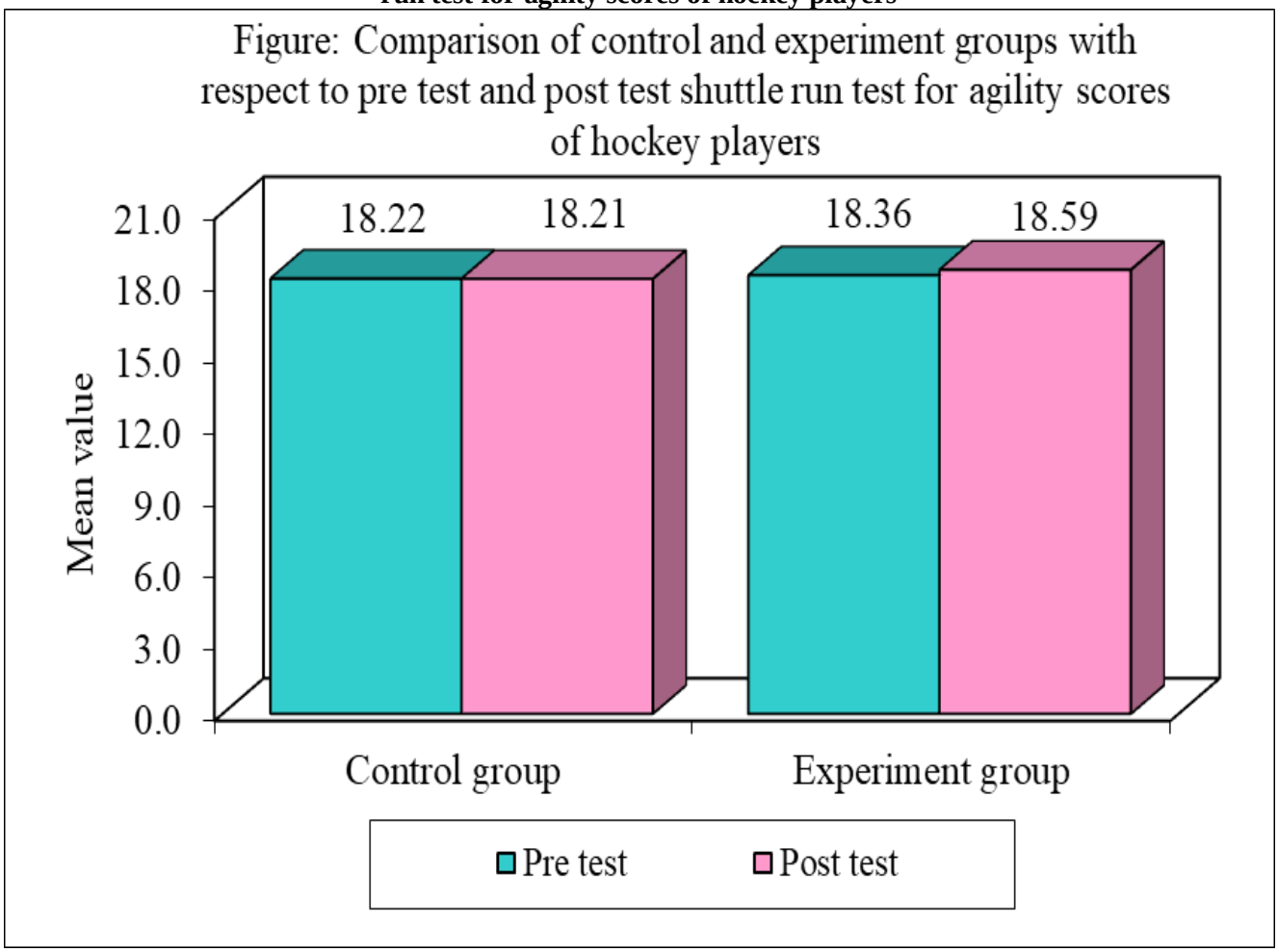
- A significant difference was observed between two groups i.e. control group and experiment group with respect to post test shuttle run test for agility scores of hockey players ($F=7.9450$, $p<0.05$) at 5% level of significance. Hence, the null hypothesis is rejected and alternative hypothesis is accepted. It means that, the post test shuttle run test for agility scores of hockey players are different in two groups i.e. control and experiment group.

Figure.1.2: Comparison of control and experiment groups with respect to pre test and post test shuttle run test for agility scores of hockey players



- The above figure indicates that agility in both the groups i.e. Experimental and control indicates the influence of agility more on Experimental group. In pre test mean was 18.59 and 18.36. Increased in post test where control as group showed very little change in pre test as well as in post test i.e. 18.21to 18.22Hence the training for eight week training influenced on the agility of subject.

Table: 1.3: Control and Experiments Groups With respect To Pretest and Post test Dribbling Skill Scores

Variable	Groups	Mean	SD	SE	t-value	p-value
Pretest	Control group	14.61	2.94	0.41	-0.0240	0.9809
	Experiment group	14.62	2.97	0.42		
Posttest	Control group	14.63	4.12	0.58	0.3133	0.7547
	Experiment group	14.37	4.19	0.59		

- The hockey players belongs to control and experiment groups do not differs significantly with respect to pretest Dribbling skill scores ($t=-0.0240$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the hockey players belongs to control and experiment groups have similar pretest Dribbling skill scores
- The hockey players belongs to control and experiment groups do not differs significantly with respect to posttest Dribbling skill scores ($t=0.3133$, $p>0.05$) at 5% level of significance. Hence, the null hypothesis is accepted and alternative hypothesis is rejected. It means that, the hockey player belongs to control and experiment group have similar posttest Dribbling skill scores.

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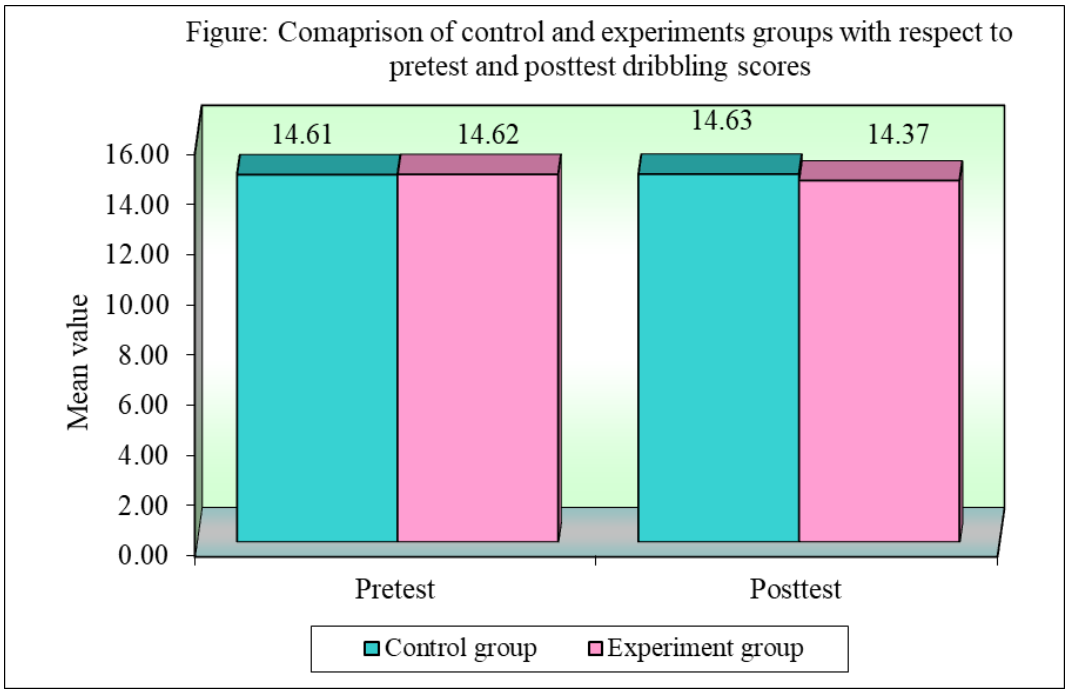
Figure 1.3: Comparison of control and experiments groups with respect to pretest and posttest dribbling scores



The above table and figure Cleary shows that interval session influence and affected on dribbling variable of the experimental group when it was tested at pre-post test. It is assumed that because the expose to training at pre and post. Those purpose improved the performance sportsman in terms of practice distance and capacity of athletes. Dribbling formulated hypothesis there would be significant effect of training on sample group has compared null hypothesis is rejected.

CONCLUSION

The hockey players have shown similar result in speed of both experimental and control group. . Both the groups i.e. Experimental group and Control group of hockey player's has shown same result in agility. In Hockey players dribbling test result of experimental group has smaller changes in comparing to the counterpart the experimental group has shown higher result in Hockey skill test comparing to the counterpart.

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EFFECT OF YOGIC TRAINING ON ATTENTION VARIABLES OF SECONDARY SCHOOL VARIABLES

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ABSTRACT
The purpose of the study was intended to assess the Effect of Yogic training on Emotional Intelligence Variables of Secondary students, for this purposehundred(100) students studying in various classes of Rampur Government high school belong to Sindagi Taluka of Vijayapur District in Karnataka state have been selected for the present study, the age group ranging of 14-16 years were selected. They were divided into two equal groups, each group consist of 50 subjects, in which group-I belong to yoga is underwent yoga practices and training, The group –II acted as control group who were not allowed to participated and receive any special treatment apart from their regular curriculum classes' The training period for this study was six days a week for twelve weeks, the before and after the training period, the subjects were tested for Attention ability at pre- and post yoga training. The assess significant effect of yoga on attention behaviour on sub group't'test was applied and discussion was made in the below table. It was drawn conclusions that after the training of yoga significant improvement has noticed in the attention behavior and ability among the yogic students comparing to their counterpart control group.

INTRODUCTION
The word "yoga" is derived from the Sanskrit root yuj, which means 'to bind", or "to join", or "to attach", or "to yoke". According to Swami Satayananda Saraswati "yoga is not an ancient myth buried in oblivion. It is the most valuable inheritance of the present. It is the essential need of the today and the culture of tomorrow". The Sanskrit tem yoga is most frequently interpreted as the "union" or "communion". It is the true union of our will or consciousness (jiva-atma) with the will or super conscious of god(parama-atama).Yogic training is a system of psycho-physical training that has its goal to uncovering of the mystical consciousness.

Yoga is a timeless pragmatic science evolved over thousands of year dealing with the physical, moral being of man as a whole.

Yoga is universal benefiting to all people of all ages. The study of yoga is fascinating to those with a philosophical mind and is defined as the silencing of mind's activities which leads to complete being.

DEFINITION OF THE TERMS
Yogasana: Asana means posture or pose, which states that poses should be comfortable, easy and steady in position. Postures balances the physical body, reduces tension, improves flexibility, maximize the flow of energy.

Pranayama: In sanskrit 'Prana' means vital energy or Life force or cosmic energy. 'Ayama' means control or regulation. Thus the pranayama is act of control or regulation of breathing to integrate vital force.

Mediationis a practice of concentrated focus upon a sound, object, visualization, the breath, movement, or attent ion itself in order to increase awareness of the present moment, reduce stress, promote relaxation, and enhance p ersonal and spiritual growth.

ATTENTION: Attention is a concept studied in cognitive psychology that refers to how we actively process specific information in our environment. As you are reading this, there are numerous sights, sounds and sensations going on around you – the pressure of your feet against the floor, the sight of the street out of a nearby window, the soft warmth of your shirt, the memory of a conversation you had earlier with a friend.

Attention is an essential element of cognition and has been characterized in two ways, that is, either as a resource or capacity or as a skill of resource deployment. Attention is the capacity to attend to a task in hand for a required period of time.The capacities to study and listen to a lecture for an extended length of time are examples of sustained attention.The self-regulation method derived from autogenic training and Zen meditation, which elicits a state of 'relaxed alertness,' also, increases attention span. Meditation increases attention span. Ancient Yogic texts suggest that a combination of both "calming" and "stimulating" yogic practices helps in increasing the span of attention. The effects of Yoga on cognitive functions have shown improvement in memory and attention. Cognitive reactions of stress result in an inability to concentrate. It was reported that

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transcendental meditation reduces stress and improves attention resulting in enhanced academic performance. Yogic practices like asana, pranayama, vedic chanting, and meditation enhances attention, self-esteem (SE) and improves visual and spatial memory. Tower of London test done on girl students practicing Yoga showed improvement in attention.

STATEMENT OF THE PROBLEM

The Purpose of the present study is to investigate **"Effect of Yogic Training on Attention Variables of Secondary School Variables"** of government secondary school students of, Vijayapur. The study was conducted in the background of experimental design

HYPOTHESIS

1. There would be significant effect of yoga training on attention variables of secondary school students.
2. There is no effect of yoga training and bring changes in attention variables among the secondary school students.

LIMITATIONS

1. The food nutrition and the body types of the students are not taken into consideration.
2. Age was recorded as found in the college admission register.

DELIMITATIONS

1. The present study is delimited to 100 students belong to Government High School Students.Rampura of Sindagi taluka of Vijyapur district were selected for study
2. The present study is delimited to male students belonging year age to 14 to 16.
3. Only selected yogasana was practiced for a period of 72 days.

METHODOLOGY

The purpose of this study is to find out "Effect of selected yogasan training on attention variables of Physical Fitness among secondary school students of Rampura school of Sindgi taluka located in Vijaypura district.

SELECTION OF THE SUBJECTS

1. In the present study single group design procedure was followed. A group of 50 students in each group was selected from Government High School Students.Rampura of Sindagi taluka of Vijyapur district were selected for study; the selected subjects were under gone 12 weeks yogasanas training. The researcher was adapted Pre-test and Post-test procedure to assess the differences.

SELECTION OF THE VARIABLES

The Psychlogical a variable selected for the present study is attention and stress and anxiety but for the articles preparation only attention variables is chosen

Selected Yogasana and paranayama for the Training as following

1. Standing Asanas: Tadasana, Vrukshasana, Hanumanasana.
2. Sitting Asanas: Padmasana, Paschimotansana.
3. Proline Asanas: Salabhasana, Dhanurasana, Bhujangasana.
4. Supine Asanas: Naukasana, Sarvangasana, Halasana, Matsyasana, Shavasana.
5. Pranayama. Yogic breathing, Anuloma-Viloma, Nadishodhaka, Bramari.

COLLECTION OF DATA

By giving six week yoga training to samples than to asses Pre-test and Post-test Training effect of yoga the 't'was applied to see the significant effect of yoga training

STATISTICAL TECHNIQUE

T-test was applied to assess the significant difference in mean score of Pre- test and Post- test.

DISCUSSION AND INTERPRETATION OF RESULT

The hypothesis is formulated that there would be significant difference in their attention level at pre-and post test of yoga training, the hypothesis was framed on the rational that practice of asana and meditation effects and results on the attention abilities of the students, because yogic techniques elicits the brain cells and increases metabolically rate of various parts of brain results in better perception and grasping ability among the practitioners, hence scholar framed hypothesis stating that practice of yoga leads to better attentive ability

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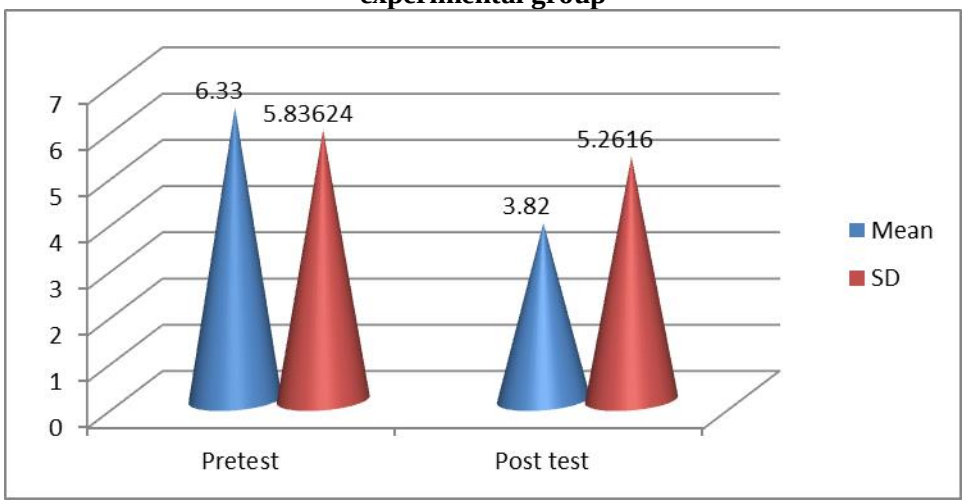
among the practitioners comparing to non practitioners.

Table No.-1: Results of Mean, SD and t-test between pre test and post test with respect to attention of students

Test	Mean	SD	N	t-value	Df	p-value	Signi
Pretest	6.3300	5.83624	100	10.32	99	.000	S
Post test	3.8200	5.26160	100				

Table No 1: Shows that the pre-test means scores of Attentionof Experiment group of students. It is observed that mean scores of pre-tests of Experiment group of students are 6.33 and their standard deviation are 5.83 and post test mean is 3.82 and their standers deviation is 5.26 respectively. The obtained "t" value is 10.32 at 5% level of significance, which is greater than the table value; hence the null hypothesis is rejected. And alternative hypothesis is accepted. It indicates that the Attentionamong the Experiment group is more comparing to Control Group students' .it reveals that practices of yoga bought significant changes in their cognitive process of students, resulted in enhancing the attentive ability by the decreasing mean score and reducing the error and mastics while performing and tracing the path way of mirror learning devices.

Table1-A- The graph showing the trend and effect of yoga training on Attention behavior of experimental group



DISCUSSION AND FINDING OF ATTENTION

Table it was revels that computed 't' value was less than the table value and data was exploded to find-out the adjusted paired means that was also significant. From The statistical analysis of the data, it was found that yogic exercise has proved better attentive and concentration ability while performing task than their counter part (Attention of Experimental and control group). In addition to that different techniques of yoga to develop harmonious between mind body. In addition to that different techniques of yoga are going to develop attention of students. Hence study probe that attention ability could be improved by the regular practice of yogic exercise.

CONCLUSION

The study reveals that the twelve week training of yoga has positively affected and influenced on the attention behaviour among the experimental group comparing to control group and pre test session of main group. It was concluded that yoga can be used as best technique to improve attention and anxiety and emotion ability to develop and control and manifest in proper way among the school going students.

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HEALTH AS A CONSUMABLE PRODUCT: EFFECTS OF HEALTH LIBERALIZATION

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ABSTRACT
Most health reform policies are designed by economists influenced by neoliberal ideologies rather than by health experts. Governments of different countries are advised to concentrate their efforts on keeping their populations healthy. However, a person or a family member who falls sick, has to pay for curative care with obvious benefits for his/herself or his/her family. In countries with the most sophisticated technologies and well developed health systems; with well organized insurance systems and high individual or household incomes, out-of-pocket expenses remains the main concern for both insured and uninsured persons. In developing countries, out-of-pocket expenses on healthcare are associated with poor government health systems, inefficiencies of government policies and programs, lack of insurance companies and poor healthcare quality etc. This paper analyses the effects of neoliberal health reforms on poor persons in the developing countries.

Keywords: Health liberalization, Out-of-pocket expenses, User fees exemption

INTRODUCTION
The Bamako initiative with its user fees and community participation components have been often hijacked by political actors and were much slower than expected to yield visible impacts. It has not been the panacea the global health community once thought it would be (Jean B.F. 2014) The difficult context of the 1980s has weighed heavily in the degradation of health structures in most African countries. The majority of which was obliged to set up direct user fees for health care services. However, the experience has shown that financial participation imposed to patients has blocked access of the most vulnerable population to health care.

Capitalism has brought a progressive marchandization of health and education including all that use to be regulated through public policies. Thus, supporters of private property wanted to reduce in practice and spirits this fundamental right to health to a consumable product only accessible to those who can financially purchase it. For instance, South Africa increased the level of user fees substantially and vigorously promoted the growth of the private health sector. The liberalization of the health sector led to a rapid increase in the number both informal and unregistered of private health providers (Diane McIntyre et al. 2008). In general, these health sector reforms undermined the potential for cross-subsidies in the overall health system and resulted in increased inequalities in access and utilization of health services. Diane McInteyre et al. (2008) argue that by the end of the 1990s, public resources for the health sector had declined sharply and health system funding relied heavily on cost recovery policies and voluntary health insurance.

Following the re-introduction of user fees, the utilization of health services decreased significantly in Ghana and the United Republic of Tanzania, particularly among people of low incomes. As well as the decline in utilization, user fees were also associated with delays in seeking treatment and increased reliance on self medication (Diane McIntyre et al. 2008). The poor in rural areas is still excluded from accessing health care services due to poverty. These conditions were voluntarily created and programmed by laisser-faire economic policies that aimed at destroying public power in different regions of the World and which resulted in social, financial and economic disaster.

I. Effects of User Fees Systems on Maternal Health Service Utilization
The Bamako initiative has maintained exclusion of poorest populations due to financial reasons. Even the World Bank which encouraged user fee recovery has recognized that many poor people were constrained to choose between not having health care services and face the challenge of being financially ruined. The solutions proposed through exemption of cost payment for indigent persons did not attain the expected results due to difficulties related to objective identification of the beneficiaries; families still experienced out-of- pocket spending even when maternal health user fees were nominally removed. Despite the introduction of user fees exemption, beneficiaries of this policy still pay out-of-pocket money on drugs while government nurses still collect money from pregnant women who give birth at their health centers. This leads also to increase of non assisted births by health workers in rural settings or simply to the decision of seeking these services in the informal sector.

II. Detention of Pregnant Women at Hospital Burundi
When hospitals were facing shortages of cash they have decided to detain patients who were not able to pay their medical bills in the 1990s due to the introduction of cost recovery policy by health facilities. Detention was

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increasingly practiced since the introduction of generalized full cost recovery since 2002. By the year 2005, 1076 patients were detained in only seven public hospitals in Burundi while their unpaid bills amounted 195 218 414 BIF(=$ 195 218.414). This showed however that the debt could obviously be very high if the survey was conducted in all hospitals at that time (WRH, 2006). Data from four other hospitals showed that in 2005, patients who were detained represented two third ($2/3^{rd)}$ of all indigent patients. The remaining one third ($1/3^{rd}$) represented those poor patients whose medical services were related to internal medicine (16%) and pediatric (10%). Taken all together, women represented 35% of all poor patients who gave birth by caesarian. And before the subsidized healthcare policy was announced in May 2006, the majority (35%) of detained patients was women who had suffered from delivery related complications such as birth by caesarian. The mortality rate was alarming because many deliveries happened at home in the village (80% of births) without any assistance from any medical professionals (HRW, 2006). There was also very high maternal mortality, estimated at 886 per 100 000 live births, explained by a low rate of deliveries attended by a qualified medical professional provider, hemorrhages, post-partum infections, malaria, etc.

III. Detention of Children at Hospital

Infants and children detained in some hospitals surveyed represented 10 percent and infant morbidity rates were one of the highest in the world due to malaria, diarrhea, respiratory diseases and HIV/Aids (HRW, 2006; MSF, 2004; NHDP, 2006-2010). Malaria accounted for about 50 percent of deaths of children under five years old. Malnutrition rate represented 44 percent of children under fifteen years old or children with disabilities. Immunization rates against deadly diseases had previously sensibly decreased. Infant morbidity rate was above the WHO's alert line of 1death per 10 000 births and per day because in some cases it ranged from 1.2 to 1.9 death per 10 000 births. And for children under five years, the mortality rate was also above the WHO's alert line of 2 deaths per 1000 and per day because it ranged from 3.1 to 4.9/10 000/day which indicated a very alarming situation at that time (HRW, 2006; MSF, 2004; NHDP, 2006-2010). They also recognized that there was high neonatal mortality rate observed in health facilities ranging from 100 to 120 per 1000 live births, with an average rate of 101 per 1000 live births (HRW, 2006; MSF, 2004; NHDP, 2006-2010). The population had no access to healthcare services. And due the user fees policy, 17.4 percent of patients had no access to healthcare services whereby 81.7 percent were constrained by lack of money. According to MSF (2004) survey conducted in some areas where they applied the medical cost sharing and random sum payment mechanisms, 90.7 percent of the 14.5 percent of patients that were very sick could not have access to consultation services due to poverty.

IV. EFFECTS OF USER FEES SYSTEMS

4.1 Effects on Financial Accessibility

David H. Peters 2008 refers to financial accessibility as the relationship between the price of services which is in part affected by their costs and the willingness and ability of users to pay for those services, as well as be protected from the economic consequences of health costs. In Burundi rural settings, the population relies mainly on agriculture as their source of incomes and in order to have access to healthcare services, they combine different sources of incomes including selling a piece of their land and portion of their properties. There exist a big gap between their health spending and their unstable and weak incomes. Financial accessibility constitutes the major obstacle for the poor to access health care services in most poor countries.

4.2 Effects on Facilities, Providers, and Quality of Care

An argument sometimes made in favour of user charges was that these could allow providers to improve the quality of care, using additional resources generated. This could, in turn, make providers more attentive to consumers since they are the source of the additional resources. Attentiveness to consumers and improvements in the availability of drugs and supplies could make the services sufficiently attractive that consumers would use as many services as those before the user charges were introduced. However, facilities experienced an uncompensated loss in fee revenue while patient volumes simultaneously increased, the quality declined over time. Shortages of inputs, like drugs and supplies occurred; providers become less responsive and motivated; and consumers' tendency to use more services at lower prices was overcome by the perception of lower quality.

4.3 Effects on Efficiency

Contrary to what was expected by the introduction of user fee systems and with respect to efficiency, fees have been to encourage inefficient provider behavior when the resulting revenue was retained at the point of collection. For example, there was over-use of unnecessary services and poly-pharmacy. In most developing countries, travel and time costs of seeking care are usually high. Fees may only, in theory, encourage more efficient utilization patterns under some conditions: if for instance (i) they are graduated by level of the system; (ii) a by-pass fee is introduced in area where the primary care network is adequate and referred patients are

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exempted at higher levels of the system; (iii) they are associated with quality improvements which promote utilization at the primary level; (iv) lack of co-ordination within a fee system may generate inappropriate utilization patterns by encouraging greater use of less cost-effective care when lower levels of the health system charge higher fees than higher levels of the systems (Lucy Gilson 2014). Overall, therefore, fee systems represented weak mechanisms for improving the efficiency of utilization, and had rather promoted inefficiencies in provider behavior. At the same time, the problems of implementation were likely to prevent the potential equity benefits in practice. Instead fees had the potential to exacerbate existing inequalities.

4.4 Effect of User Fees Systems on Equity

User fee systems have also affected the equity in that fees by themselves tended to dissuade the poor more than the rich from using health services and have been shown to be associated both with delays in accessing care and with increased use of self-medication and informal sources of care. And in the case fees were associated with quality improvements, as in BI-type community financing schemes, their negative impact on utilization was offset, and the introduction of fees-plus-quality improvement might have even generated utilization increases amongst the poorest (Lucy Gilson 2014). Inequality can also result from the differential implementation of fees between geographical areas within a country. More wealthy areas charge less than poorer areas, particularly if regions of different income level are expected to recover similar proportions of their costs.

4.5 Effects on Availability

With regards to availability and expertise of health workforce, it is argued that health gains depend on having all of the components of skilled attendance available at the level of quality required to do more good than harm. A sufficient quantity of health workers with appropriate midwifery and obstetrical skills is also critical, along with an appropriate distribution of those workers across both rural and urban areas (Laurel E. Hatt et al. 2013). Thus, as with other financial incentives aiming to increase service utilization, user fee exemption has also little effect on maternal and neonatal health outcomes.

CONCLUSION

Capitalism has brought a progressive marchandization of health that use to be regulated through public policies. Thus, supporters of private property wanted to reduce in practice and spirits this fundamental right to health to a consumable product only accessible to those who can financially purchase it. Both user fees and user fees exemption systems did not abolish direct payments from patients. Their main assumption remains to increase the supply and demand of largely curative health services because they provide direct benefits to the patients and his family. While the World Bank has emphasized the financial aspect, it has continually forgot to tackle the problem of poverty and the many problems that lead to inefficiency and inequity in developing countries. And as results of health systems liberalization, public health facilities continue to provide inefficiently unequally distributed poor quality health services. The supply and demand of health services sharply decreased due to poverty while the poor remains unhealthy.

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MULTI LANGUAGE ONLINE CODE EDITOR USING DATA VISUALIZATION TECHNIQUES

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ABSTRACT
Programming and editing a program are the two important aspects of a Developer. Developers can do editing and programming using available paid applications; however some systems are not economical which causes infeasibility. Some editors are lightweight but do not provide better user experience and those proving the latter are very heavy and can be leggy. My work proposes the Multiple Coding Language online support as a text based Editor. It is a fast, secure, extensible developer environment on cloud runtime environment. The application can be useful in programming and/or editing in multiple languages with one interactive editor. Shortcuts are are the most gainful thing that an engineer can add to their repertoire that will help them all through. Learning how to use the developing system and tools for the programming domain will improve productivity and in general make traversing all application requirements a flow. The mouse is an incredible apparatus, however in the event that you can do it faster, more adequately without your hands leaving your console then you should.

Keywords: Cloud Code Editor, Smart Code Editor, Data Visualization,

I. INTRODUCTION

The project aims in developing a Smart Code Editor application to do programming in one editor with better user experience. The application can be useful in doing programming in multiple languages with one editor along with better user experience. Shortcuts are the most productive thing that a developer can add to their repertoire that will aid them throughout their entire careers. Figuring out how to utilize your framework and devices will improve your efficiency and by and large make crossing every one of your windows and applications a breeze. The mouse is an incredible apparatus, however in the event that you can do it faster, more adequately without your hands leaving your console then you should. Many programmers who want to edit code might prefer to install an application on there systems or pay online for accessing an Online Editor. Text editors are good tools for programmers to use within small resources as they have many limitations. Nevertheless, they also need to be installed on the computers before using. Therefore, programmers have to have at least one Computer to access their respective codes. If there should arise an occurrence of scant need of a PC altering of code is incomprehensible. Thus, Multi Language Online Code Editor using Data Visualization Techniques was proposed to solve this problem. It helps programmers to write or modify their source code at any place and any time they want.

II. PROBLEM DEFINATION

A. *Statement OfProblem*

We can do programming using paid applications however some editors are highly paid which may not be feasible for all users. Some editors are lightweight but do not provide better user experience and some are providing better user experience but they are very heavy and can be leggy..

III. SUPPORTING INFORMATION

Companies around the world are collectively losing about $300 billion a year by wasting developer resources on fixing maintenance issues, according to a survey of developers and C-level execs by online payments firm Stripe. Developers are in high demand and, depending on the languages they know and their location, they could be taking home well over $100,000 per year.But according to Stripe's survey of 1,000 developers and 1,000 C-level execs, on average about half of the developer's working week is spent on maintenance, such as debugging, modifying code, and fixing bad code. [5]

Engineers announced chipping away at normal 41 hours out of each week, and spending a normal of 17.3 hours on upkeep work. The organization gauges there are 18 million engineers on the planet, every one of which contributes $51,000 to GDP every year, totaling $918 billion around the world. In view of input that 31 percent of engineer time is squandered, Stripe appraises this negatively affects worldwide GDP as much as $300 billion for every annum.

Software engineers spend 2.7 hours on environment management

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The perfect solution is a quick, secure, extensible developer environment cloud. With cloud IDEs, you can add to an undertaking in a flash.

IV. EXISTING SYSTEM

In the present scenario, we have many applications for programming. Some of which are paid, such as Web Storm, etc. There are other applications such as Visual Studio, Web Storm Community these editors are very large and heavy. Some free editors like Sublime and Visual Studio Code can be used for multiple languages, however, Sublime does not provide autocompletion We can do programming using paid applications however some editors are highly paid which may not be feasible for all users. Some editors are lightweight but do not provide better user experience and some are providing better user experience but they are very heavy and can be laggy.

V. PROPOSED SYSTEM

Proposed System is a WebApplication that provides a code editor. The proposed system will include the following features:

1. Provides the code editing with syntax highlighting.
2. Provides auto-completion for web technologies.
3. Provides code documentation for web technologies.

Advantages of the Proposed System

1. Simple and clean.
2. Smart code editing features
3. Lightweight and fast.

VI. CLOUD COMPUTING AND TEXT EDITOR

a. Cloud Computing Defination

The definition of Cloud computing was identified by many researchers. National Institute of Standards and Technology (NIST) introduced Cloud computing as the following:

"Cloud computing is a model for enabling convenient, OnDemand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model promotes availability and is composed of five essential characteristics, three service models, and four deployment models." [1]

b. Cloud Service Model Architecture

There are 3 basic types of Cloud computing architectures [2-4]

1) Cloud Software as a Service (SaaS)

The ability gave to the buyer is to utilize the supplier's applications running on a cloud framework. The applications are open from different customer gadgets through a slender customer interface, for example, an internet browser (e.g., online email). The buyer doesn't oversee or control the basic cloud foundation including system, servers, working frameworks, stockpiling, or even person application abilities, with the conceivable exemption of restricted client explicit application setup settings. clients of IaaS and PaaS are designers or application programming suppliers yet not end-clients. The application programming suppliers build up the product to send in Distributed computing for end-clients.

2) Cloud Platform as a Service (PaaS)

The limit provided for the client is to pass on onto the cloud establishment client made or secured applications made using programming lingos and gadgets supported by the provider. The client doesn't administer or on the other hand control the crucial cloud establishment including orchestrate, servers, working structures, or limit, yet has order over the sent applications and possibly application encouraging condition arrangements

3) Cloud Infrastructure as a Service (IaaS)

The capacity gave to the purchaser is to arrangement apreparing, capacity, systems, and other basic figuring assets where the purchaser can send furthermore, run discretionary programming, which can incorporate working frameworks and applications. The shopper doesn't oversee or control the hidden cloud framework however has control over working frameworks, stockpiling, conveyed applications, and perhaps restricted control of select systems administration segments (e.g., have firewalls).

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c. Serverless Computing

Serverless computing is a cloud computing execution model in which the cloud provider runs the server, and dynamically manages the allocation of machine resources. Pricing is based on the actual amount of resources consumed by an application, rather than on pre-purchased units of capacity. It can be a form of utility computing. [7]

Serverless computing can simplify the process of deploying code into production. Scaling, capacity planning and maintenance operations may be hidden from the developer or operator. Serverless code can be used in conjunction with code deployed in traditional styles, such as microservices. Alternatively, applications can be written to be purely serverless and use no provisioned servers at all. [8]

d. Development Tool for Editor

1) Node.js

Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Node.js is an open-source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux.

2) Electron js

Electron JS is a runtime framework that allows the user to create desktop-suite applications with HTML5, CSS, and JavaScript. It's an open-source project started by Cheng Zhao, an engineer at GitHub.

It is basically a blend of two incredibly popular technologies: Node.js and Chromium. Thus, any web application you have written can run on Electron JS. Similarly, any Node.js application you write can utilizethis technology.

3) Firebase

Firebase is a Google product that provides many services such as authentication, database, analytics, cloud messaging, etc.

The software uses two services authentication and cloud firestore of firebase Authentication service used for performing a login, registration functionalities with the application.

4) CodeMirror

CodeMirror is a versatile text editor implemented in JavaScript for the browser. It is specialized for editing code, and comes with a number of language modes and addons that implement more advanced editing functionality.

A rich programming API and a CSS theming system are available for customizing CodeMirror to fit your application, and extending it with new functionality.

VII. FUNCTIONS OF THE EDITOR

In this paper, the Online Code Editor was developed using JavaScript. It called some functions in CodeMirror which is FrontEnd editor written in Javascript, such as Undo, Redo, and Syntax Highlight. For users, there are 4 steps in using the editor. First, the users need to login after registration. Second, the users create a project which means that a folder is created in order to store files in it. Third, the users can create files under the created folder. With this Editor, the users can Import, Export, Undo, Redo, Save, and Run projects or files, etc. The editor supports over 40+ Languages.

VIII. USE OF ONLINE CODE EDITOR

The use of Online Code Editor and its functions can bedescribed as shown below:

1) Login/Register

User needs to register or Login is already registered first in order to create projects and folders, files, etc. shown in fig. 1

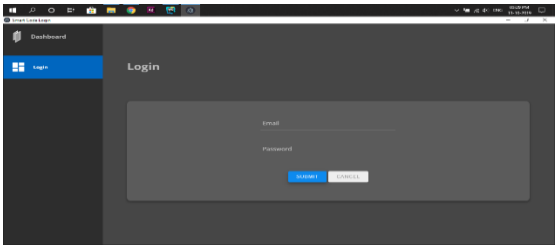

Fig. 1

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2) CREATE OR SELECT PROJECT

After login user will projects screen as shown in Fig. 2, Where previous projects are shown so user can select any project or create project in order to start developing in zero developer config tine. if user creates new project then by default some folders files created for developer.

In this screen user can easily delete projects and projects will into bin folder where we can see our deleted projects and if developer wants to restore them they can in no time

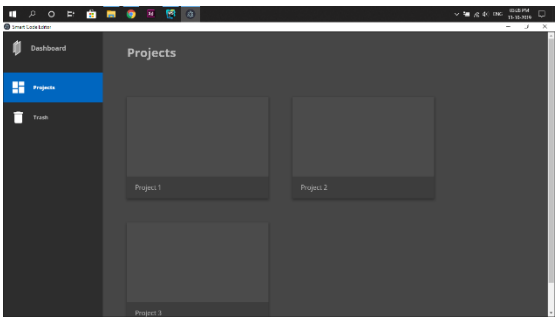

Fig. 2

3) START WORING ON PROJECT

Now developer signed up and selected project to start working on project, here user can create new files or folder according their need.

For better developer experience in Online Code Editor Syntax highlighting and autocomplete features are implemented by default as shown in fig. 3 and fig. 4

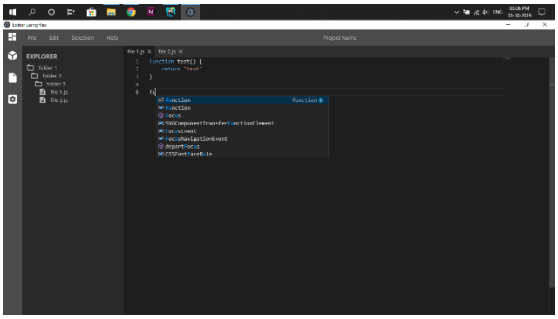

Fig. 3

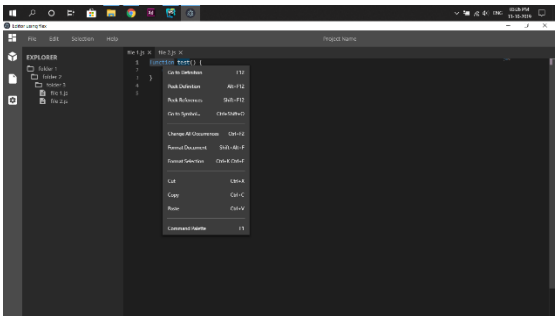

Fig. 4

IX. ACKNWOLEDGEMENT

This assessment paper was maintained and guided by Prof. Bilal Mohammad Shaikh. His massive heading helped being created of this assessment paper.

CONCLUSION

In this paper, the Multi Language Online Code Editor using Data Visualization Techniqueswas created and deployed on in Serverless cloud computing. CodeMirror open source software was used to create Undo, Redo, and Syntax highlight. In addition, the functions which are Import/Export files, Save file, Open file, Delete file, Delete were created to make this editor complete. In addition, the advantage of deploying on Serverless cloud computing is the programmers in the business or organization can urgently write or modify program source code without any specific physical computers or without installing the editor program. Over 40+ computer languages; can be written within this editor using the Multi Language Online Code Editor using Data Visualization Techniques which is the best one stop solution for all on

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NUTRITIONAL ASSESSMENT AND SUPPLEMENTARY FEEDING FOR ANGANWADI CHILDREN: AN PILOT STUDY IN DEJOO TEA ESTATE, NORTH LAKHIMPUR, ASSAM

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ABSTRACT
Nutritional status is an important index for measuring quality of life especially in children. The quality of nutrients intake influences the growth and development of the children, as well as the nutrients and health status. In most of the developing countries today, more and more emphasis is laid on the need for the development of the children. Therefore the present study is such an initiative to assess the nutritional status and to develop homemade nutritional snack as a supplementary feeding for Anganwadi Children. As Compared to NCHS standard and affluent Indian children, the mean height and weight of tea garden children was inferior at all ages. Assessment of nutritional status using WHO recommended anthropometric indicators revealed a prevalence of malnutrition among the tea garden pre- school children and malnutrition was mild to moderate.

Objectives: To assess the nutritional status of pre-school children of 2-6 years of age and To develop a nutritional snack in order to provide a minimum daily nutritional requirements to improve their nutritional status.

Methods: A cross sectional study was carried out in 13 Anganwadi centres of Dejoo tea estate under Nowboicha block, North Lakhimpur, Assam, have been selected purposefully for the study. Total no. of children in 13 blocks is 356. Nutritional anthropometry is widely used for the assessment of the nutritional status of those particular children.

Results: After examine through Anthropometry measurement, it came to notice that the pre-school children of Dejoo Anganwadi centres were mildly malnourished. As an initiative steps, the researcher made an attempt to develop a nutritional snack as a supplementary food that can provide at least one third of their daily requirement.

Keywords: Anthropometry, Anganwadi Children, Malnutrition, Nutritional status

INTRODUCTION
In developing countries like India, various forms of malnutrition affect a large segment of population. Malnutrition continues to be the biggest health problem of our country today despite efforts by the government of India and voluntary health agencies towards eradication of the same. There is growing realization that adequate nutrition is a necessary first step in the improvement of quality of life. The most effective and simplest way of detecting hidden malnutrition is by anthropometric assessment. Anthropometry offers a reliable method to assess the nutritional status of the children (Bhasin et al., 1990). World Health Organization (WHO) has recommended various indices based on anthropometry to evaluate the nutritional status of children (WHO, 1995). An attempt has been made to assess the nutritional status of the preschool Anganwadi children of Dejoo tea estate, North Lakhimpur, Assam.

Tea garden workers have migrated to Assam from central and south India and their main source of livelihood is tea industry of Assam. They are socio- economically lagging behind and mostly illiterate. Poor socio- economic condition compounded by higher prevalence of morbidities among children may adversely affect growth and nutritional status of tea garden children. There is paucity of anthropometric indices based information on nutritional status of tea garden children of Assam.

The present pilot study is an ongoing Minor research project in the collaboration with Social Welfare Department, North Lakhimpur Assam, is expected to throw light on nutritional status of vulnerable group realized that only to assess the nutritional status will not solve the problem of malnutrition. So keeping this in mind the researcher made an attempt to develop a supplementary food as a nutritional snack in the form of laddu(sweet snack) for the Anganwadi children which will provide at least one third of their daily nutritional requirements.

MATERIAL AND METHODS
A cross sectional study was carried out in 13 Anganwadi centres of Dejoo tea estate under Nowboicha block, North Lakhimpur, Assam, have been selected purposefully for the study. Total no. of children in 13 blocks is 356. The ages of the children were obtained from birth record maintained by the Anganwadi workers. Anthropometry indices i.e. Height and weight were measured using standard procedures as describe below.

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Height: Height was measured using a vertical measuring rod with headpiece without wearing footwear. The children were asked to stand on flat surface, heels together and head positioned so that the line of vision was perpendicular to the body. The arms hanged freely by the side and the head, back, buttocks, and heels are in contact with the vertical measuring rods. The individuals were asked to maintain a fully erect position. The movable headpiece was brought onto the topmost point on the head with sufficient pressure to compress the hair. Height was recorded to the nearest 0.1 cm.

Weight: weight was recorded using a digital SECA balance. The children were asked to stand in centre of the weighing machine platform without support, with the body weight evenly distributed between both the feet. Weight was taken with standard minimal clothing. They were also asked to remove the shoes, socks etc. weight was recorded to the nearest 500gm.

Along with their Anthropometry indices, the daily nutritional requirements and the yearly rate of growth in pre-school children is taking into consideration in this project.

RESULT AND DISCUSSION

The normal yearly rate of growth of preschool children in presented in the **table 1**.

Table 1: Average height and weight of normal growth children from 2-6 years of Age (ICMR)

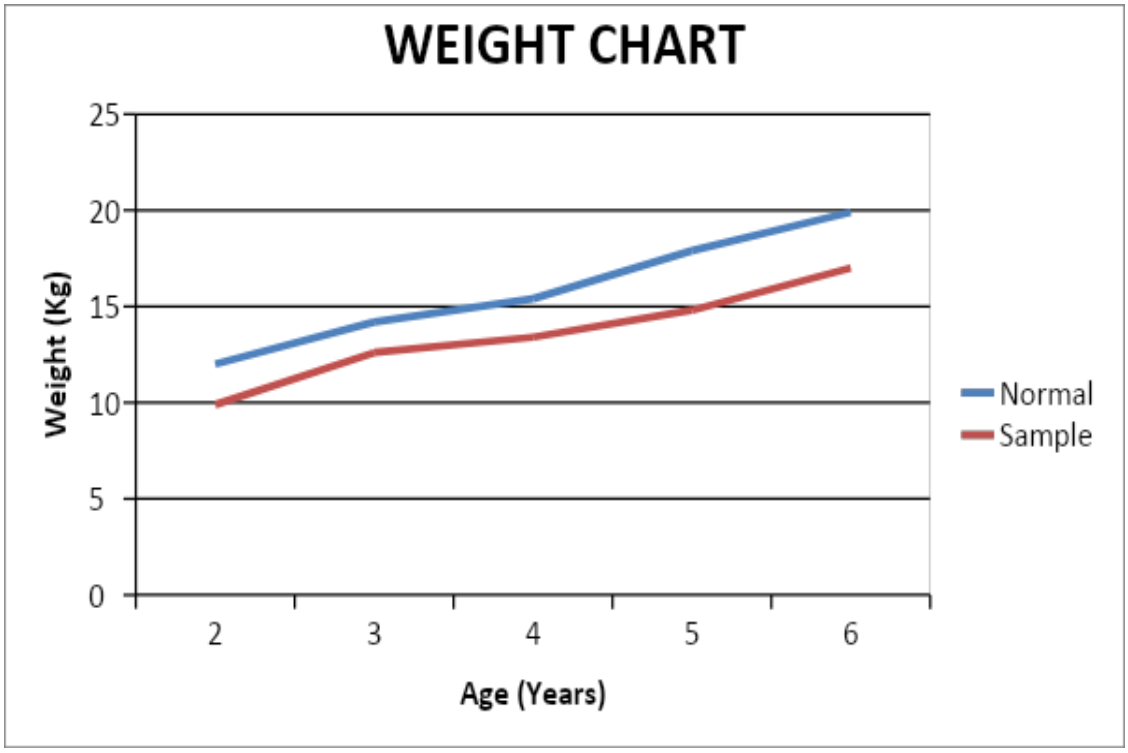
AGE	WEIGHT (KG)	HEIGHT (CM)
2 Years	12	85.5
3 Years	14.2	94
4 Years	15.4	100.3
5 Years	17.9	107.9
6 Years	19.9	115.5

Table 2: Average height and weight of the Sample (Children of the Dejoo Centers)

AGE	WEIGHT (KG)	HEIGHT (CM)
2 Years	9.9	83.2
3 Years	12.6	92.5
4 Years	13.4	99.2
5 Years	14.8	105.8
6 Years	17.0	113.0

Source: primary data

The mean height and weight of the pre- school children of Dejoo centers through anthropometry measurement are given in **Table no 2.**



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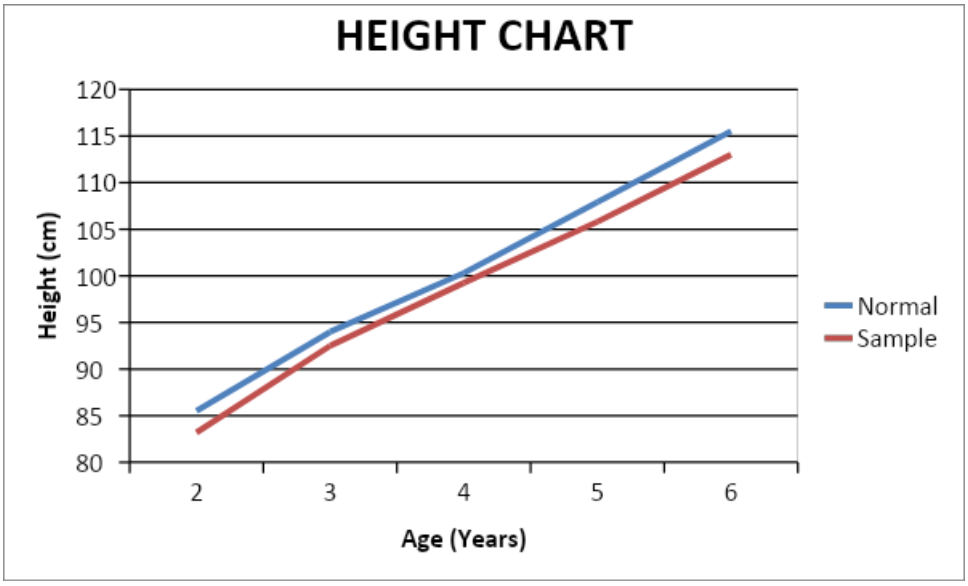

Table 2 reveals the average height and weight of the pre-school children of Dejoo tea estate Anganwadi centres. After comparing table 1 and 2, it came to notice that the average height and weight of the selected children are mildly below the standard (ICMR). It reveals that the selected children are mildly malnourished.

Dietary requirement of essential nutrients varies with age, gender, physiological status and physical activities. The requirement for particular nutrients is the minimum amount that needs to be consumed to prevent symptoms of deficiency and to maintain satisfactory levels of the nutrients in the body. The **Recommended Dietary allowances (RDA)** are the amount of nutrients to be actually consumed in order to meet the requirements of the body. Nutritional requirement recommended for preschool children of age 2-6 years are given in Table 3.

Table 3: Recommended Nutritional Allowances for Pre- School Children (By ICMR)

Nutrients	**Year**	
	1-3 year	**4-6 year**
Weight (Kg)	12.2	19.0
Energy (Kcal)	1240	1690
Protein (g)	22	30
Fat (g)	25	25
Calcium(mg)	400	400
Iron (mg)	12	18
Vitamin A (mg)	400	400
Beta carotene (mg)	1600	1600
Thiamine (mg)	0.6	0.6
Riboflavin (mg)	0.7	0.7
Nicotinic acid(mg)	8	11
Pyridoxine (mg)	0.9	0.9
Ascorbic acid (mg)	40	40
Folic acid (mg)	30	30
Vitamin B 12 (mg)	0.2 to 1	0.2 to 1

Nutritional Snack "PUSTI LARU"

From the above comparison it is clear that the tea garden Anganwadi children are midly malnourished. Therefore through this project the researcher made an attempt to overcome the problem by developing a nutritional supplementary snack to provide at least one third of their daily requirements. The laddu will be given to them at least for six months along with their normal diet. Every after two months, height and weight will be recorded to see their improvement in terms of nutritional status.

"PUSTI LARU" means nutritional laddu in local language consists of Different ingredients such as Rice powder, Bengal gram powder; Jaggery, Peanuts and ghee have been used keeping in mind their nutritional status and their availability in local market. All the ingredients used have great nutritional values. The essential

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nutrients present in the snack are **Carbohydrates, Protein, Fats and Minerals**. The nutrients presents in the laddu will provide at least 1/3rd of their daily nutritional requirements. The cost is also taking consideration. The Nutritive value of the ingredients used were calculated and presented in the table 4.

The snack i.e., **"Pusti Laru"** has been tested in State Public Health laboratory, Government of Assam. Report of food analysis shows positive results as given in table 4.

Table 4: Report of Food Analysis

Sl.no	Parameters	Nature of methods	Results (%)
1.	Moisture	FSSAI manuals	11.82
2.	Total ash	-do-	1.55
3.	Total Fat	-do-	6.05
4.	Total Protein	-do-	5.23
5.	Total Carbohydrate	-do-	75.35
6.	Test for added colour	-do-	Negative
7.	Total Energy (K Cal/100g)	-do-	376.80

Opinion – The result of analysis of parameters is as reported and no extraneous harmful matter could be detected.

Table 5: Nutritive value of "Nutri Laru"

SL. NO		Protein (g)	Fats (g)	Carbohydrates (g)	Energy (K Cal)	Calcium (mg)	Iron (mg)
1	Rice powder	75	10	767	3,460	100	32
2	Bengal gram powder	225	52	581	3,690	580	95
3	Jaggery	4	1	950	3,830	800	24.4
4	Ground Nut	131	199	133.5	2,850	1,850	15.5
5	Ghee	-	300	-	2,700	-	-
Total		**435**	**562**	**2,431.5**	**16,530**	**3,330**	**168.9**

Table 5 shows the total nutrients content of each ingredient are:

- Protein = 435 g
- Fats = 562 g
- Carbohydrates = 2,431.5 g
- Energy = 16,530 Kcal
- Calcium = 3,330 gm
- Iron = 168.9 gm

Weight of each laddu is 50g and the nutrient in each Laddu is presented in the table 6

Table 6: Nutrient content of each ladoos

Nutrients	Amount	Nutrients in Each Laddus	Nutrients in Individual laddus
Protein(g)	435	435/50	8.70
Fats(g)	562	562/50	11.24
Carbohydrates(g)	2431	2431/50	48.62
Energy(Kcal)	16530	16530/50	330.60
Calcium(gm)	3330	3330/50	66.60
Iron(gm)	169	168.9/50	3.37

Percentage of Nutrient content in Pusti Laru from the total required RDA are

Nutrients	% of Nutrients from total RDA
Protein	39.54
Fat	44.96
Energy	26.66
Cal	16.65
Iron	28.08

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RESULTS

1. After examine through Anthropometry measurement, it came to notice that the tea garden pre-school children of Dejoo Anganwadi centres were mildly malnourished. To overcome their problem, an attempt has been made by the researcher to develop a nutritional supplementary snack i.e. "Pusti Laru".
2. The Pusti Laru will provide at least 1/3 of the daily requirements. i.e., Percentage of Nutrient content in Pusti Laru from the total required RDA are: Protein 39.5 %, Fat 44.9%, Energy 26.6%, Calcium 16.6% and Iron 28.08%.

CONCLUSION

Nevertheless, there is a need for improvement of diet in terms of foods and nutrients to meet 1/3rd requirement of RDA. The attention to be given in meeting the daily requirements for preventing the deficiency problems and to promote health in the children.

This paper is an extract of an ongoing Minor research project and only shows their nutritional status but the impact of the nutritional snack will be shown only after the final anthropometry assessments.

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PHYSICAL ACTIVITY AND IMMUNE SYSTEM

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ABSTRACT
The several studies have done on health benefits of exercise. Different types of physical activity can improve respiratory endurance and cardiovascular health helps to maintain weight; muscle development etc. in the same way several studies proves that the moderate exercises helps to improve the immune system. The immune system plays a significant role in defending against disease-causing microorganisms. The immune system involves the organs and process of the body fights against the infections and toxin. The organs are thymus, bone marrow and lymph node.

Engaging in physical activity regularly boost up the immune system and helps to the body to fight against infections and viruses. At least aim for 30 minutes of physical activity for three days a week. These activities can involve walking, swimming, aerobics and other low impact workouts. The physical activity improves not only the metabolism also the immune system of the body.

Keywords: Physical activity, Exercise and Immune System.

INTRODUCTION

The immune system plays a significant role in defending against disease-causing microorganisms. The immune system involves the organs and process of the body fights against the infections and toxin. The organs are thymus, bone marrow and lymph node.

The immune system has many functions; the main function is to fight or defend against the microorganisms and germs. There are several factors affects the regular functioning of the immune system; age, gender, health status, eating habit, lifestyle, training and fitness level. Physical activities helps to flush the bacteria out of the airways and lung, by which helps to reduce the chances of flu, getting cold or other related illness.

Engaging in physical activity regularly boost up the immune system and helps to the body to fight against infections and viruses. At least aim for 30 minutes of physical activity for three days a week. These activities can involve walking, swimming, aerobics and other low impact workouts. The physical activity improves not only the metabolism also the immune system of the body.

EFFECT OF EXERCISE ON IMMUNE SYSTEM

Participating in physical activity and sports in society have been increasing as it has many health benefits e.g.; weight management, cardiovascular health improvement, type 2 diabetes, obesity, delaying in aging process, management of stress etc. The regular moderate physical activities influence the improvement of immune system. Regarding the direct effect of exercise on the immune system, moderate exercise seems to exert a protective effect, whereas repeated bouts of strenuous exercise can result in immune dysfunction (Brolinson, 2007).

The exercises influence the several components of the immune system both chronically and acutely. The risk of infections related to cellular immunity decreases with the moderate intensity exercise, while high-intensity exercise can promote in these same parameters, thus increasing the risk of infectious diseases.

- Several studies has shown that either positive or negative effects of exercise on immune system, but the effects depends on the type of exercise, duration and intensity of the exercise.
- Moderate to high intensity activities leads to improve blood circulation, which enhances the blood circulation to the substances of the immune system.
- Regular moderate activities like aerobics, cycling and walking are beneficial to enhance the immune system.
- It is known that regular moderate exercise reduces the risk of infection compared with a sedentary lifestyle (Matthews et al., 2002; Nieman et al., 2011)

Physical Activities and Exercises that helps to improve and maintain the immune system;

- Moving in lawn (walking): thirty minutes of walking per day helps for proper functioning of our system and also provides health benefits like lower diabetes and stress.

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- Brisk walking: it is nothing but walking faster than the normal, for example hundred steps per minute. Which help to improve aerobic capacity and improve blood circulation.
- Swimming: swimming rises the heart rate which improves cardiovascular endurance, muscular strength and helps to maintain ideal body weight. And also keep healthy heart and lung.
- Cycling: cycling is a activity which improve the strength of the muscle and lower limb joints, and also help to build endurance which provide health heart, lungs.
- Jogging: it is activity which boosts the respiratory system, improves strength of the bone, helps in maintain ideal weight, reduces mental stress and helps in mental health.
- Rope skipping: it is also called rope jumping which improves coordination, strengthen ankle and foot, bone strength improves, helps in calories burn, improves endurance and provide health of respiratory system.
- Low impact aerobic exercises: aerobic exercise which helps to improve the aerobic capacity of the individual. And also, aerobics improves strength, coordination, reduce mental stress, and it is an activity which gives fun.
- Water fitness: now a days the performing the aerobic exercises in the water are being more popular around the world. The types of fitness activity will give more benefit and fun. Through water fitness we can improve coordination, muscular strength because the water act as resistance in exercise. And mainly these exercises are more helpful in rehabilitation.
- Stairs stepping: stepping on stairs in a rhythmic manner improves the strength of the muscles and joints of lower limbs. And which also helps to improve the endurance ability and strength endurance of muscle.
- Stretching: Stretching exercise improves the stretch ability of the muscles and mobility of the joints. Which helps for a improve the blood flow to the muscles and reduce stiffness and also strengthen the muscle.
- Strengthen exercises; own body weight resistance exercises such as squat, push-ups, pull up and hold and other exercises with resistance band which helps to improve the strength of the muscle and joints, helps in maintaining good posture and reduce the risk of injuries of joints.
- Balancing exercises; such as single leg stand, stand on toes etc., are improve the stability of the joints and also improve the proprioceptive functioning which helps to reduce risk of injury.
- Free hand exercises: these exercises help to maintain the posture and active the muscles and improve the blood flow to the muscles.

CONCLUSION

The individual has to engage in a physical activity for at least 5 to 7 hours per week, this helps to improve the immune system and also help to lead healthy and active life style. The above mentioned physical activities and exercise helps to improve and maintain the immune system of the human body by which helps to maintain the health and fitness.

Many of the peoples know about the exercise but the question is what type of exercise should be performed, how long and how much? Physical education is the only area where the people can educate towards the proper execution of exercises.

Before engaging in physical activity it is better to discuss with physical educationist, so that the exercises can be execute in proper way and get maximum benefit from it and also to avoid injuries and over load.

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RECOGNITION THROUGH IRIS

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ABSTRACT
In this paper, we set out the novel method we prominent to generate an Iris Recognition System, in therewith to an analysis of our outcome. We then used the Haar wavelet so that to elicit the conclusive sample in a persons iris in the form of a feature vector. By using the Hamming Distance operator collate the quantized vectors, we judge finally whether two irises are identical. Our outcome show that our system is quite efficacious.

Keywords: Bilinear Transformation, Biometrics, Haar Wavelet, Hough Transform, Iris Recognition system, Hamming distance

1. INTRODUCTION

The aim of 'Iris Recognition', is for personal discretion and adspection, is to distinguish a person from his/her iris image. Actually, iris samples are designated by high order of reliability and candidness. Each unit has a unrepeatable iris (see Figure 1); the distinctness even exists between similiar twins and among the right and left eye of the common person. [6]

We executed 'Iris Recognition' using Matlab for its ease in image simulation and wavelet applications. Our project start with images acquirement. Certainly, the pictures dimension and type are simulated in order to be able hereafter to procedure them. Once the preprocessing step is obtained, it is mandatory to confine the iris and disclose it. At this stage, we can elicit the structure of the iris using Haar Wavelets. Finally, we collate the coded image with the beforehand coded iris in order to find a match.

Figure 1: Distinctiveness of human iris

2. IMPLEMENTATION

2.1 Image acquisition

Image acquisition is assumed as the most impassable trunk in our project so long as all consequential stages rely highly on the image perfection. In order to complete this, we require a CCD camera. We set the fixture to 640x480, jpeg as a type , and the mode to white and black for larger portion. Beside, we took the eye pictures as long as attempt to maintain apropos settings like illumination and fend to camera.

2.2 Image manipulation

In the preprocessing stage, we converted the picturess from RGB to gray level and from eight-bit to double precision thus make easier the simulation of the images in latter steps.

2.3 Iris localization

Before executing iris sample matching, the range of the iris should be established. In other ways, we are assumed to catch the part of the image that expands from inner of the limbus to the outer of the pupil [6]. We begin by composing the outside edge by first down exemplifying the pictures by a factor of 4, to authorize a quicker processing lateness, using a Gaussian Pyramid. We then apply the Canny operator with the default threshold rate given by Matlab, to get the gradient image.

Next, we use a Circular pair of scales which comprise of summing the impassibility over all circles, by applying three loop within loops to pass over all probabilistic center and radii coordinates. The circle with the largest radius and highest pair of scales parallel to the outer range. The radius and center of the iris in the actual picture are composed by rescaling to get the consequences. Afterward having established the outer side, we then require to get the inner one which is tough because it is not quite understanding by the Canny operator particularly for dark-eyed person. Hereby, after catching the outer range, we test the impassibility of the pixels enclosed by the iris. Relying on this impassibility, the threshold of the Canny is selected. If the iris is shadow, a low threshold is applied to authorize the Canny operator to tick off the inner circle unconnected the iris from the pupil. If the iris is get off colored, such as blue or green, then a higher threshold is employed.

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The pupil center is transformed by up to 15% from the radius and center of the iris is neither larger than 0.8 nor lower than 0.1 of the radius of the iris [2]. This signify that processing time, committed to look for the center of the pupil of this part is comparatively little. Hence, in place of searching a down pattern version of the iris, we find out the actual one to gain maximum exactness. Thus we have specified the boundaries of the iris and we can then change this zone to represent each eye.

2.4 Mapping

After specifying the bound of the iris in the previous phase, the iris should be segregate and stored in a separate image. The elements that we should look out for the alternative of the pupil extending and arising of distinct size in distinct images. For this reason, we start by modifying our coordinate system by disclosing the bottom part of the iris (lower 180 degrees) and plotting all the points in under the range of the iris into their polar identical (Figures 3 & 4). The size of the plotted picture is static (100x402 pixels) which signify that we are taking an identical number of points at all possible angle. Hereby, if the pupil extends the similiar points will be selected up and plotted once more which prepares our plotting process lengthen irreversible.

When disclosing the image, we prepare use of the bilinear transformation to get the impassibility of the points in the new picture. The intensities at every pixel in the new picture are the outcome of the projection of the gray scales in the old image. [4]

Fig.2 Grayscale Image

Fig.3 Iris isolated image

2.5 Feature extraction

"One of the very attracting features of the globe is that it can be reckon to be made up of samples. A sample is basically a positioning. It is described by the level of the components of which it is built up," rather than by the immanent nature of these components (Nobert Wiener)[4]. This description sum up our objective in this part. In fact, this step is accountable of squeezing the samples of the iris taking into report the correlation between adjoining pixels. After doing lots of research and analysis about this topic, we decided to" use Haar wavelet Transform .

2.6 Haar Wavelets

Most earlier effectuations have formed use of Gabor wavelets to squeeze out the iris samples [2], [3], [6]. But, since we are very desire on putting our total computation time as swinish as possible, we judged that forming a neural network specifically for this job would be very time taking and choosing another wavelet would be more apropos.

We get the 5-level wavelet tree displaying all detail and approximation coefficients of one plotted picture obtained from the plotting part. When collating the outcome using the Haar transform with the wavelet tree achieved using other wavelets we established that the Haar wavelet gave gradually better outcome.

Our plotted picture is of size 100x402 pixels and can be isolated using the Haar wavelet into a maximum of five levels. These levels are cd_1^H to cd_5^H (horizontal coefficients), cd_1^V to cd_5^V (vertical coefficients) and cd_1^D to cd_5^D (diagonal coefficients).

We must now chosen up the coefficients that present the core of the iris sample. Therefore those that unveil superfluous information should be removed. In fact, looking closely at Figure 6 it is obvious that the patterns in cd_1^H, cd_2^H, cd_3^H and cd_4^H are almost the same and only one can be chosen to reduce redundancy.

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Since cD_4^h repeats the same patterns as the previous horizontal detail levels and it is the smallest in size, then we can take it as a representative of all the information the four levels carry. The fifth level does not contain the same textures and should be selected as a whole. In a similar fashion, only the fourth and fifth vertical and diagonal coefficients can be taken to express the characteristic patterns in the iris-mapped image. Thus we can represent each image applied to the Haar wavelet as the combination of six matrices:

- cd_4^H and cd_5^H
- cd_4^V and cd_5^V

cd_4^D and cd_5^D

All these matrices are combined to build one single vector characterizing the iris patterns. This vector is called the feature vector [5].

Since all the mapped images have a fixed size of 100x402 then all images will have a fixed feature vector. In our case, this vector has a size of 702 elements.

This means that we have managed to successfully reduce the feature vector of Daugman who uses a vector of 1024 elements [3]. This difference can be explained by the fact that he always maps the whole iris even if some part is occluded by the eyelashes, while we map only the lower part of the iris obtaining almost half his feature vector s size.

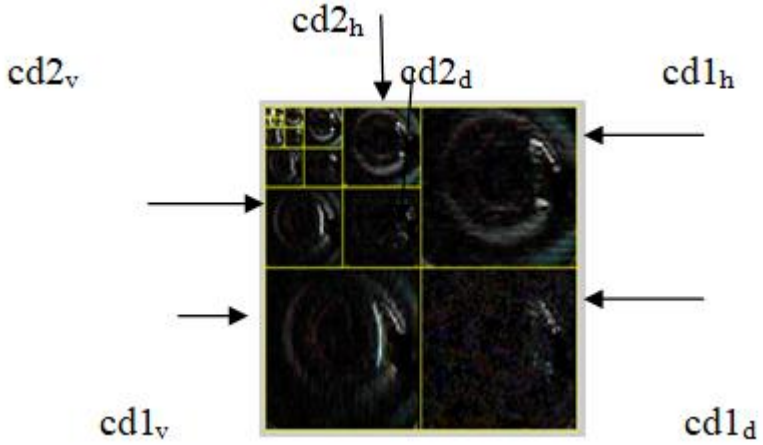

Fig.4- Conceptual diagram for organizing a feature vector

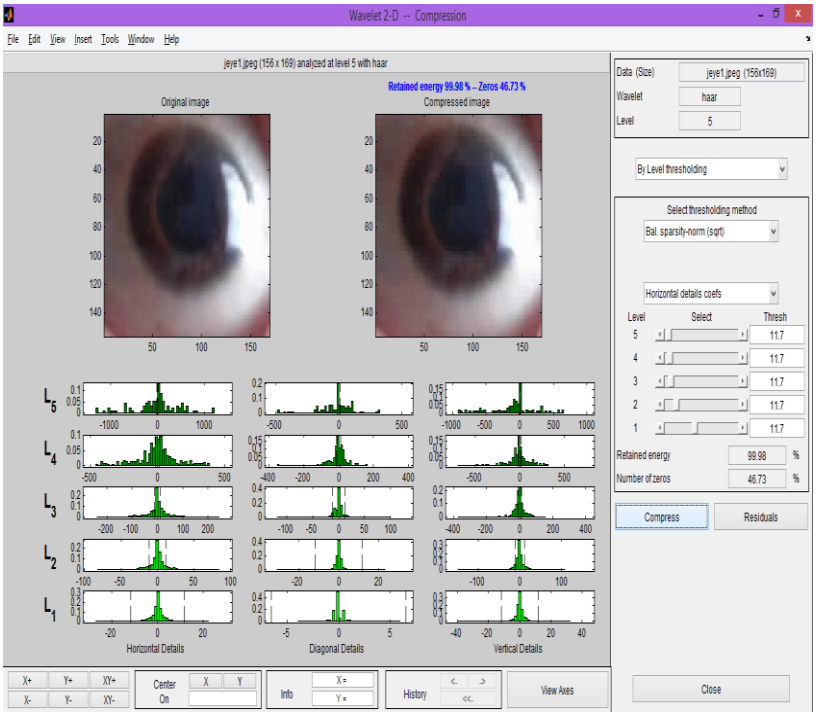

Fig.5 Pixel analyzed with level 5 using Haar wavelet

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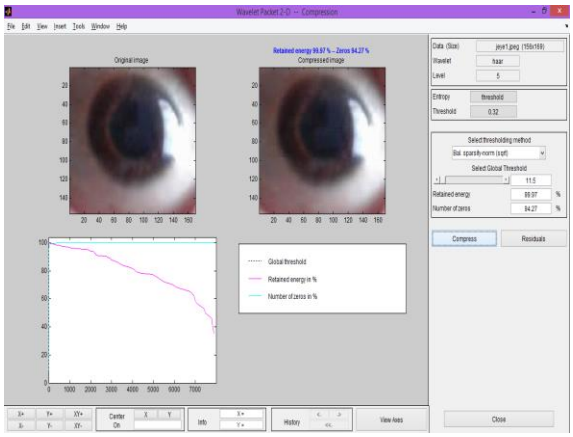

Fig.6 Graph of Threshold using Haar at level 5

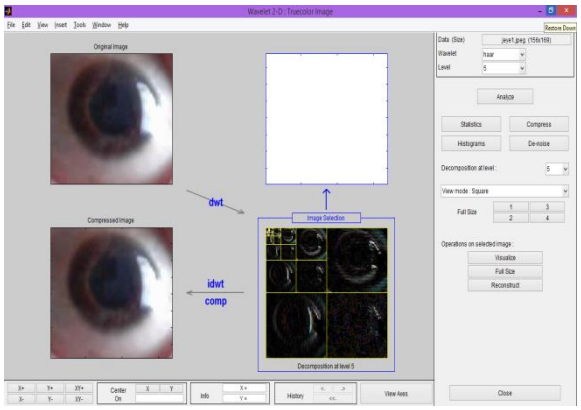

Fig.7 Decomposition at level 5 using Haar i.e Horizontal coefficients, vertical coefficient,diagonal coefficient

2.7 Binary Coding Scheme

It is very necessary to show the acquired vector in a binary code because it is simple to calculate the distinction amidst two binary code-words than amidst two number vectors. Concretely, Boolean vectors are indeed simpler to collate and to wangle. Systematically to code the feature vector we first inspect some of its features. We establish that all the vectors that we got a minimum value which is less than 0 and a maximum value that is larger than 0. Furthermore the standard variation ranged between 0.35 and 0.5 while the mean of all vectors variegate little between -0.07 and -0.006 while.

The following quantization scheme converts it to its code-word when "Coef" is the feature vector of an picture

· If Coef(i) >= 0 then Coef(i) = 1 If Coef(i) < 0 then Coef(i) = $0^{\text{equivalent}}$

The next stage is to find out whether they represent the same person or not by collating two code-words .

2.8 Test of statistical independence

The collation of two irises patterns enables in this statistical independence test. This test is based on the logic that when the Hamming distance is greater between two feature vectors, the differences between them is larger. When the distance between two irises will be small then the two identical irises test will fail.

The definition of the Hamming distance(hd) between two Boolean vector are as follows[2][3]:

$$HD = \frac{1}{n} \sum_{j=1}^{n} c_A(j) \text{ Å } c_B(j)$$

where, c_A and c_B are the coefficients of two iris images and n is the size of the feature vector (in our case n = 702). The ^{a}is the known Boolean operator that gives a binary 1 if the bits at position j in c_A and c_B are different and 0 if they are similar.

John Daugman, the precursor in iris recognition convened his tests on a very high number of iris sample and draw conclusion that the largest Hamming distance that lies between two irises belonging to the same person is 0.32 [2]. Since we were unable to retrieve any large eyes database and were efficient to store 60 images, we selected this threshold and applied it.

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Thus, when collating two iris images, the function of equating binary feature vectors are responsible to evaluate the Hamming distance between the two. The following results decide whether these two image are owned by the same person:

If hd is less than 0.32 decide that it is same person .

If hd is greater than 0.32 decide that it is different person (or left and right eyes of the same person)

3 RESULTS AND PERFORMANCE

We tested our project on 60 pictures, using a Intel Core i3 processor, and we get a mean of edify recognition of 92%, with a mean computing time of 30s. Table 1 gives the efficiency of the system. The main factor of the omission we combated is due to the quality of the images. Few of these issues are bad lighting, cover by eyelids, noises or unsuitable eye phasing.

Table 1.Efficiencies of the different parts

	Edge Detection	Mapping	Feature Extraction	Binary Code Generation
Efficiency (%)	96	100	96	100

4 GRAPHICAL USER INTERFACE

We develop an interface that permits the user to select various options to manipulate simply. The first is to collate by opting two images. The second is to permit all the verification of the conformity among the entered name and a selected eye picture. The third one is to discern an individual through his eye.

The software implemented(fig-8) is used to secure all the above options The flowchart of the project is shown in the fig-9 briefly.

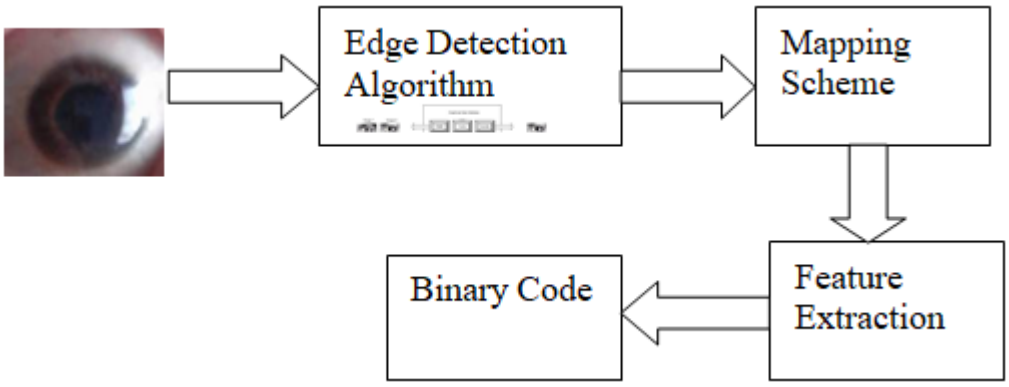

Fig.8- Flow Chart of Iris Recogniton

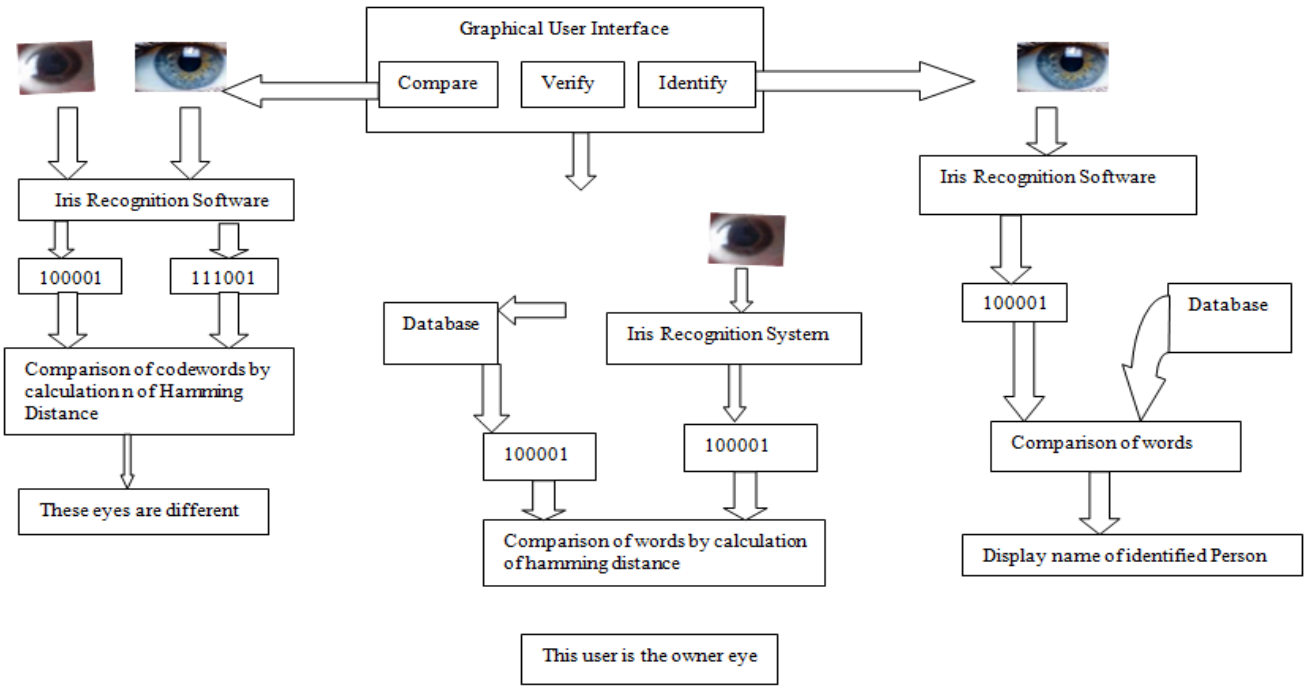

Fig.9 Flowchart of the Project

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5 CONCLUSION

We have triumphing built a new Iris Recognition system that are able to collate two digital eye-images. This system is relatively easy demanding some factors and is efficient adequate to be unified under security systems that want an identity check. We can easily surmount by the use of stable equipment to reduce the error. Examining by the clear disparateness of the iris samples we can hope iris recognition systems to become the main technology in recognizing the individual.

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ROLE OF SPIRITUALITY IN CHANGING SCENARIO OF MANAGEMENT – A STUDY

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ABSTRACT

Many business managers complain for lack of mental peace; today. It was found that the root for the same cause rested in their Managerial Style. The importance of Mental Peace is highlighted in one of the ancient Vedas- Atharva Veda. The Management Perspective primarily focusing on Personal and Spiritual Dimensions of the Organizational Members for their subsequent improvement and consequent organizational effectiveness; can be termed as Spiritual in practical character. The concept of Spirituality enables a Manager to gain a more integrated perspective.

A consensus has already reached on the principal ingredients of Spirituality for the working class. A Spiritual Manager follows the Spiritual Principles whereas a Practical Manager follows the Modern Principles and Sophesthecated Practices in the Digital era.

This Research Paper deals with the differences in the managerial styles consequently leading to varying degrees of mental peace. The difference in the Managerial Style of the Spiritual Manager and the Practical Manager is studied under the following five Dimensions; namely; Leadership Style; Motivational Style; Communication Style; Controlling Style and Crisis Management Style.

Keywords

(a) Pre-birth and Re-birth

(b) Slightly Disturbed to Highly Disturbed

(c) Somewhat Peaceful to Considerably Peaceful

(d) Effective Manager and Skillful Manager

INTRODUCTION

Many business managers complain for lack of mental peace; as on today. After thorough investigation; it was found out that deep root for the same cause rested in the style in which the affairs of the organization were managed. Thereafter, it was decided to study the difference in the style of managing the affairs between the managers who were lacking mental peace and who were having mental peace. It was inferred that those managers who were having mental peace were adopting different Management Practices and Principles from those Managers who were lacking Mental Peace. Thus; indeed it is the need of the hour to change the existing scenario of traditional and paternalistic Management and concentrate on its innovative and recent trends being practiced; now-a-days.

The Management Perspective primarily focusing on Personal and Spiritual Dimensions of the Organizational Members for their subsequent improvement and consequent organizational effectiveness; can be termed as Spiritual in practical character. Moreover; the concept of Spirituality enables a Manager to gain a more integrated perspective not only on him; his firm and family but also on his neighbor and the whole community at large. As a result, a number of modern Managements have initiated substantial and significant efforts in practicing spirituality in the workplace. These efforts are actually observed and ultimately measured in terms of growing number of professional presentations; reading books; referring to Research Papers; articulating articles; conducting conferences; etc.; specially devoted to the subject.

A consensus has emerged; especially of late; on the principal ingredients of Spirituality; as a pure and practical concept; particularly for the working class. It includes; inter alia; Existence and belief in God, importance of Prayer and a Sustainable World. Some Managements as well as Business Firms deliberately encourage the practice of spirituality at the workplace in the practical form of allowing Prayers during Working Hours; providing time for celebration of Religious Rites and performance of Festive Duties; etc. Now-a-days; many Religiously-oriented Universities are integrating Mission; Spirituality and Service as a part and parcel of their Curriculum.

Difference between the Spiritual Manager and the Practical Manager -

For the purpose of the Research Paper; it is decided to divide the Business Managers into two distinct categories; namely the Managers having Mental Peace and the Managers not having Mental Peace. Further; a

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Manager having Mental Peace is described as a 'Spiritual Manager' whereas a Manager not having mental peace is described as a 'Practical Manager.'

In order to ascertain the intrinsic meaning associated with the two words; namely 'Spiritual Manager' and 'Practical Manager;' first and the foremost, it is essential to describe these two words; in detail.

I. Spiritual Manager -

A ***Spiritual Manager*** is; no doubt; a Manager; but he follows the Principles of Spirituality while managing the organization. As these precious principles are highly personal and self-developed in their character; the overall generalization in their respect is simply not possible.

However, these principles broadly include the following beliefs.

(A) He respects the concepts of ***'Pre-birth'*** and ***'Re-birth.'*** Thus, as per the dictates of this philosophy; a specific task has been allotted to a particular individual for a present birth; not by the Management; but by the God and that is the sole reason as to why he has been recruited and selected in the organization.

(B) Each and every person is in Developing Phase; always. In other words; there are neither superiors nor inferiors; all the individuals assembled within the organization are the disciples of the Almighty. Moreover, official hierarchy is a simple and convenient arrangement of different messengers of Deity meant for Work Simplification.

II. Practical Manager

A ***Practical Manager*** differs from a Spiritual Manager in his Conceptual Understanding of the word 'Management.' He is a Manager who follows all the Modern Principles and Sophesthecated Practices of Management, necessary in the Digital era while managing the organization. The pragmatic Management principles are well-developed by several Management thinkers; experts and practitioners; thus; they all are very simple and general in their thrust and application.

However, these principles broadly include the following beliefs.

(A) A specific task has been allotted to a particular individual; because he is technically competent and intellectually proficient for the same. Thus, he has been recruited and selected in the organization for performance of that task.

(B) Each and every person is in a Developing Phase within the organization and is formally interrelated and functionally interdependent through an Organizational Structure on each other. In other words; there are; no doubt; superiors and inferiors organized within the organization except the individuals at the top of the Official Hierarchy; where there are only Superiors and the individuals at the bottom of the Official Hierarchy; where there are only Subordinates. This arrangement is essential for Allocation of organizational work and fixation of Authority as well as Responsibility.

Rationale of the Research Paper –

The importance of Mental Peace is highlighted in one of the ancient Vedas- ***Atharva Veda***; which is regarded as the scholarly literature; in the following lines. ***"Keep away from me that wealth which brings about my fall; results in my defame; which entangles me from all directions and withers me like a parasite plant that withers away the supporting tree, bless me with that wealth which gives peace and joy."***

The following were the detail findings of one of the Research Studies conducted on the lines of Mental Peace of the Managers.

(a) Those managers who were ruthless and relentless in their managerial approach; especially with their subordinates were found disturbed mentally; on a continuum ranging from ***'Slightly Disturbed' to 'Highly Disturbed.'***

(b) Those managers who were diplomatic and courteous in their managerial approach; especially with their subordinates were found mentally peaceful; on a continuum ranging from ***'Somewhat Peaceful' to 'Considerably Peaceful.'***

As a matter of fact; the above findings are of two different extremes. This implies that a particular manager is neither observed strictly ruthless and relentless nor observed strictly diplomatic and courteous in his managerial approach. However, he adopts both these styles; no doubt; simultaneously but with different subordinates in different situations in the same organization. In other words, he is noticed quite selective in his managerial style as well as approach. Furthermore, this type of selectivity; in itself; determines to a great extent; the degree of his mental peace. ***This Research Paper deals with the difference in the managerial styles consequently leading to mental peace of varying degree for Business Managers.***

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Research Paper Objective –
The following is the Objective of the Research Paper.

1. To Study the Difference between the Managerial Style of a Spiritual Manager and Practical Manager

Research Paper Scope –
The Practical Scope of the Research Paper extends to all the Business Managers.

Research Paper Methodology –
(a) The Methodology adopted for writing the research Paper is ***'Observation.'***

(b) Primary Data is collected through ***informal interactions***; with the managers working in the Private Sector at different levels; namely; Top, Middle and Lower; initiated through ***unstructured disguised questionnaire***.

Difference between the Managerial Style of Spiritual Manager and Practical Manager -
The difference in the Managerial Style of the Spiritual Manager and the Practical Manager is studied under the following five Dimensions.

I. Leadership Style

II. Motivational Style

III. Communication Style

IV. Controlling Style

V. Crisis Management Style

Let us discuss each of these dimensions one by one in the following lines.

I. Leadership Style
The Spiritual Manager adopts Participative or Demographic Leadership Style; in general. At the same time; wherever it is practically feasible; he adopts Free-rein Style also. Thus, he enjoys all the benefits of these two Leadership Styles.

In the history of Management literature; it is proved time and again that Autocracy; Burocracy or Monocracy is not universally liked by any human being. On the other hand; subordinates tend to work with high level of motivation when they are given full freedom for Decision Making for the matters falling within the ambit of their official purview.

The Practical Manager adopts Situational Leadership Style; in general, that is he may be Autocratic, Democratic or Free-rein in his style depending upon the situation; irrespective of the fact what he himself prefers to as per his original nature and attitude. Thus, he achieves success in any situation; forget simple situation; especially in challenging situation; in getting work done through and with the help of the subordinates; whatever may be their character; hard working; hardly working or otherwise.

The overall ***level of acceptance*** of a Practical Manager within the organization may not be as high as that of the Spiritual Manager; however; he is recognized as an ***Effective Manager in the short run.*** As a matter of fact, this; in itself; is expected out of a ***Skillful Manager*** and therefore he is called Practical. The subordinates incline to cooperate with the Manager because they are well aware of the fact that he does not hassle them beyond the level or the extent; it is absolutely essential in a given situation.

II. Motivational Style
The Motivational Style of a Spiritual Manager is noticed Positive; always; whatever may be the probable outcome of the prevailing situation; whether favorable or unfavorable.

The Motivational Style of a Practical Manager is also; in general; no doubt; experienced Positive. However, it may turn slight negative; to start with; especially if he doubts about the probable favorable consequences in the existing situation. Furthermore; this degree of negativity may go on rising; if he suspects that the existing degree may fail to create a situation; he expects in order to achieve success in the adverse situation.

III. Communication Style
The Spiritual Manager communicates with his subordinates quite empathetically. This implies that he adopts 'You Attitude' and sells his idea through communication. He uses soft words to construct the communication message in such a way that the subordinates would not get hurt at all. Moreover, he delivers the message in a

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decent and courteous manner. The overall approach to construct and deliver the message is found so persuading that hardly anybody resists the same.

The Practical Manager communicates with his subordinates diplomatically. This implies that he also adopts 'You Attitude;' no doubt; however; he does not care too much to sale his idea through communication. He may not pay additional attention on the construction of the message as such; at the same time; he may be concerned; a bit; about the subordinates. Moreover, he delivers the message in a pleasant and understandable manner. The overall approach to construct and deliver the message is found formal and practical so that it gets accepted.

IV. Controlling Style

The Controlling Style of a Manager is; as a matter of fact; hidden in his Leadership and Motivational Style itself. The Spiritual Manager controls the subordinates indirectly and impersonally. He neither supervises them quite closely nor does he believe in firing them even in cases wherever they fail to deliver that what is expected out of them.

The Practical Manager controls the subordinates occasionally directly and personally. He supervises them quite closely wherever it is needed and fires them in cases wherever they fail to deliver that what is expected out of them. He is afraid of the fact that if this is not practiced, he may lose the overall control over all the subordinates. In other words, he indulges in punitive practices in order to protect and prevent erroneous or inefficient organizational behavior.

V. Crisis Management Style

The Spiritual Manager keeps cool even under emergency circumstances or crisis. He tries his all the level best to get out of the crisis; but he does not get personally involved in the situation and thinks quite indifferently about the probable consequences. Moreover; he is experienced neutral or detached in his approach and tends to reveal lack of inclination towards the unwanted happenings.

The Practical Manager may necessarily; not lose his cool; too soon under crisis. He too tries his all the level best to overcome the crisis; yet at times; he is observed getting personally involved in the prevailing situation and worried for future unwarranted consequences. Also; sometimes he gets attached to the situation so badly that he finds it quite difficult to control himself especially when he gets excited to achieve the desirable result; either by hook or crook.

CONCLUSIONS

If comparison is undertaken on the basis of five dimensions covered in the Research Paper; one can come to the following conclusions.

1. The Spiritual Manager will be more effective over Practical Manager; particularly in the long run. He will be remembered by the subordinates for good practices he had with the subordinates.
2. The Spiritual Manager is undoubtedly practical in nature; but his ways and means to get work done from the subordinates differ drastically as compared to those of the Practical Manager. At the same time; the Practical Manager is occasionally or very rarely experienced Spiritual in his approach.
3. The Value and Belief System of both the Managers is different. There is nothing like Superior System or Inferior System as such, it is simply a question of a ***Managerial Approach; Personal attitude; Practicing Style*** and nothing else.
4. The style of a Practical Manager under crisis may generate stress and strain unlike the style of a Spiritual Manager.
5. Ideally; it is advisable to the Modern Managers to change the Paternalistic and Traditional Management Style and espouse the Spiritual Management Style in order to enjoy Mental Peace.

Research Paper Limitations

1. Selective Dimensions of the difference between the Managerial Style of the Spiritual Manager and Practical Manager are covered in the Research Paper for want of Length of the Research Paper.

2. Various views expressed in this Research Paper are partially the outcome of organizational observations of the Researcher; his personal views and experiences during social and official as well as unofficial and informal interactions with many managers. As a result, full intellectual concurrence with all such personal views and opinions is certainly not expected.

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(At the same time; it may; necessarily; not; at all; be out of place to point out; over here that those views and inferences are based on fully considered, well balanced and sound judgments of the prevailing managerial situations in different organizations.)

SCOPE FOR FUTURE RESEARCH

During the study of this Research Paper; when the researcher interacted with the number of Business Managers; several inevitable questions cropped up. Although the Educational Qualifications and some other Demographic and Psychographic Factors were almost identical in respect of most of the Business Managers; their styles to manage the organization revealed remarkable distinction.

The main causes and reasons for the same dissimilarity were suspected in some other prominent factors like *Family Background; Personal Nature; Social Environment and Experiences; Dominance of Ideal Personalities; Level of Rationality; Emotional Stability and Intelligence; to mention a few*. Thus, these factors really need to be explored through the conduct of a Research which can be phrased as under.

(i) Causes and Reasons for Differences in Managerial Styles – An Analytical Study

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SECURE SOCIAL NETWORKING ANALYSIS

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ABSTRACT
The importance of machine learning for social network analysis is realized as an inevitable tool in forthcoming years. This is due to the unprecedented growth of social-related data, boosted by the proliferation of social media websites and the embedded heterogeneity and complexity. Alongside the machine learning derives much effort from psychologists to build computational Model for solving tasks like recognition, prediction, planning and analysis even in uncertain Situations. Therefore, it is significant to study the synergy of machine learning techniques in social network analysis, focus on practical applications, and open avenues for further research. In this paper, we have reviewed the theoretical aspects of social network analysis with a combination of machine learning-based techniques, its representation, tools and techniques used for analysis. Additionally, the source of data and its applications are also highlighted in this paper.

Keywords: Security, Analysis, Node and SNA.

INTRODUCTION
The Social Network is defined as "a social formation comprising a subset of actors and the interaction between these actors." This theoretical formation is useful to analyze interrelation between individuals, groups, organizations, or even the societies. Researchers also studied how these social formation Influences other elements, how it changes relative density of ties, or how formation changes over time. In recent years, social network approach has become increasingly relevant in computer information revolution ("The number of published applications has been growing at about 250% per year over the past five years") with the proliferation of web technologies; there is an increasingly greater amount of interaction by people while on the Internet. Web has enabled many ways of interaction (White and Horary, 2001), which forms the social network structures (Wellman, 2001).

OVERVIEW OF SOCIAL NETWORK ANALYSIS
The concept of social network has been around for about a century. The theories evolved have focused on the multidimensional relationships between elements of social systems. So, the basic theoretical approach of a social network analysis must be relational.

TERMINOLOGIES
A Network is a graph having a set of nodes connected by a set of ties. A node (n) can be anything: an individual or a subset of social elements like persons, friend's circles, organizations, concepts, web documents, patents or anything that comprises a group. Nodes are also defined as Actors or points. A tie (e) connects two actors in the network. A tie is also called edges, link, relation, or connections. A tie can be directed (indicating a flow of direction) or bonded-ties (simple, undirected*)* and can be dichotomous (present or absent, as in whether two peoples are friends or not) or weighted (measured on a scale, as in closeness of friendship). Networks which are made up of only one type of nodes are homogeneous, otherwise heterogeneous. A network may be simplex representing a similar type of relations among actors or multiplex for heterogeneous relations.

1. A single actor that gets attention for analysis is known as ego and the set of actors that has ties with the ego (not including ego itself) is known as alters.
2. A set of actors is known as reciprocated, if each actor chooses others.
3. An actor is pendant when the actor is tied to the group with only one Connection.
4. Collection of ties of a network is known as relational data and the total number of actors of a network is known as network size.
5. A network whose ties are associated with a measure of magnitude or strength is known as valued network.

REPRESENTATION
Networks are represented using graphs and matrices. Sociogram is the first representation of social network, where people are represented by points and lines representing relationships among them. This graph based view using graph theory is one of the widely used structural representations. Different color, shade, different symbols and sizes are used to specify the actor's properties or type. To indicate a different kind of relation using ties,

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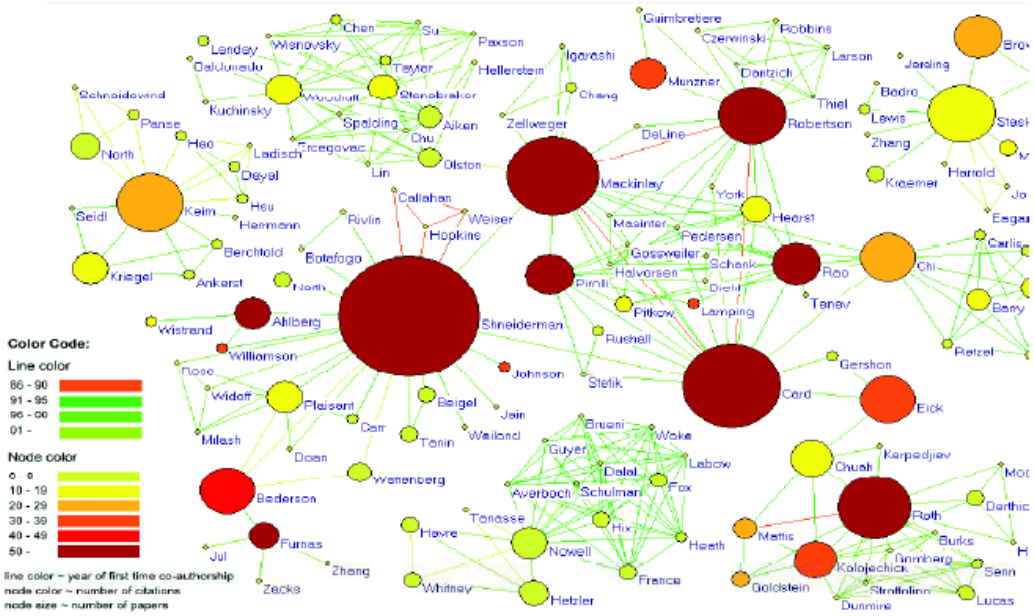
dotted line, bold line, multi-lines, arrow headed lines indicating direction etc. are used along with different colors. This helps to understand superimposed relation among actors .Due to the enhancement of Web 2.0, online documents are created using semantic web frameworks consisting of a graph model (RDF), a query language (SPARQL), and definition systems (RDFS and OWL) to represent and exchange knowledge online (Adamic and Adar, 2003). These frameworks provide much richer structures than raw graph and enables researchers to take into consideration all web elements instead of people relation only.

Figure 1: A Graphical Representation of Social Network



SECURITY

Due to increased occurrence of Social network security incidents, it is shown that current Social network security approaches are not sufficient. Zhao *et al.* (2005) presented a framework for intelligent analysis and monitoring security of network information content using SNA. The system can collect and manipulate various channels of nanostructured, semi-structured, and structured data on Internet; carry on security assurance-related selections and topic identification; and also perform analysis of emails. Zhang *et al.* (2005) proposed a recommendation-based global trust model for peer-to-peer network based on reliability information of past transactions.

Social networks are also useful for judging the trustworthiness of outsiders. Boykin and Roy chowdhury (2005) proposed an automated anti-spam tool using reciprocate. The natural instinct to form closely knit social networks operating in cyberspace has been recognized to provide an effective and automated spam-filtering algorithm using quantitative definition of the clustering coefficient that involves counting the fraction of a node's neighbors that are also each other's neighbors. Cai*et al.* (2006) showed Collaborative filtering for people recommendation using eigenvector centrality.

Software Tools for Analysis and Visualization

SNA software facilitates either qualitative or quantitative analysis. Software can produce numerical analysis or visual report. Some of the software can produce prediction on individual or group level http://www.analytictech.com.

Generally, SNA software comes in two flavors:

1. Packages based on Graphical User Interfaces (GUI) with drag and drop support.

2. Scripting or programming language, which are more powerful and extensible than GUI-based tools.

Some of the GUI-based software are:

• NetMiner

• UCINet

• GUESS

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• Pajek

• ORA

• Cytoscap

Other SNA platforms, such as Idiro SNA Plus, are specifically developed targeting specific industries such as telecoms or online gaming, and are able to analyze huge data.

Commonly used scripting tools used for SNA are:

• NetMiner (with Python scripting engine)

• The statnet suite of packages (for the R statistical programming language)

• igraph (with packages for R and Python)

• The NetworkX library (for Python)

• The SNAP package (for large-scale network analysis in C++).

These open source packages are growing very fast in terms of functionality and features than their privately maintained counterpart,). They also come free, thanks to open-source licensing.

Application & Data Source

Nowadays, SNA is an emerging field and applied in an increasing number of domains, including government, business, medicine, organizational behavior, anthropology, sociology, etc. SNA can help knowledge management and collaboration to locate expertise, seek new communities, develop cross-functional knowledge sharing, and improve strategic decision-making across leadership team. SNA can facilitate teambuilding and strategy building. Recent research shows that SNA has become an important tool to the organizations, especially for the HR personnel trying to understand the connection between patterns of interactions and business outcomes such as job performance, job satisfaction, adaptation of new ideas or technologies, likelihood of information getting shared and creation of new ideas. It identifies where collaboration breaks down, where talent and expertise could be better leveraged, where decisions are getting bogged down, and where opportunities for diffusion and innovation are being lost. It is also used to analyze roles, trusts, responsibility, realignment, etc. SNA has proven its power on sales and marketing in the form of social CRM, trend spotting, product quality, social marketing, loyalty programs, direct marketing, communities, business intelligence and reputation monitoring. Recent web-based product selling, recommendation system and advertising are the prominent emerging application domains of social network analysis.

SNAs are used to understand how patterns of human contact disease inhibit the spread of disease. It can be applied to communications, community, complex networks, criminal networks, diffusion of innovations, demography, economic sociology, healthcare, human ecology, language/linguistics (linguistic forms and transfer of changes, sounds or words, from one language to another language through network social interaction), organizational studies, social capital (refers to the value one can get from social ties), and to detect structural hole (refers to the absence of ties between two parts of a network).social network data continues to be a major hurdle in industrial applications. Now, web, including weblog, is considered as the best data source for SNA. A web-crawler can work on web to collect documents and their hyperlink on the web.

Level of Analysis

A. Micro- Level Analysis: At micro-level, research typically begins with an individual, snowballing of social relationships are traced, or may begin with a small group of individuals in a particular social context. Micro-level is categorized by:

(i) Actor level – analysis of a single actor.

(ii) Dyadic level – involves two individuals.

(iii) Triadic level – involves three actors.

(iv) Subset level – relation among a small subset of the network.

B. Meso- Level Analysis: Meso-level theories begin with a population size that falls between the micro- and macro-levels. Meso-level may also refer to analyses that are specifically designed to reveal connections between micro- and macro-levels. Meso-level networks are low density and may exhibit casual processes distinct from interpersonal micro-level

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networks. Meso-level is categorized by:

(i) Organizations – analysis carried out among actors of a social group having collective goal. For example, inter-organizational or intra-organizational formal or informal relationship.

(ii) Randomly-distributed networks – networks of nodes consist of no well-connected or statistically less significant relation.

(iii) Scale-free networks – nodes having strong connectivity.

C. Macro-Level Analysis: Macro-Level Generally, trace the outcomes of interactions, such as economic or other resource transfer interactions over a large population. Macro-level can be:

(i) Large-scale networks and

(ii) Complex networks

Background Reality of Social Networking Platform

I. Analyzing the OSNs category wise. Most Popular Category like: Twitter, Facebook, Instagram, Myspace etc.

II. Analyzing the fact for that for what OSNs are suffering .OSNs are suffering for what like: Hijacking, Adware, Spyware, Malware,

III. Attacks on Social Media Platform.Detection & suspension of Malicious accounts individually.Understand that how criminal accounts survive & work on Social media.Analyze OSN Criminals accounts "Social Relationship & ecosystem"

IV. Read the behavior of typical criminals accounts/Spam Accounts.Usually they have huge no. of followers in a normal accounts & post similar tweets/message with malicious URLs.

2. Detecting Malicious OSNs Identities

I. Current Machine learning techniques: Label normal and spam accounts Design and extract detection features like:

Profile-based Feature	Content-based Feature
No.of Followers/Friends	No. of Duplicate Shares, Tweets, Forwarding Message.
Following to Follower Ratio, Request sender to receiver ration	Message Sharing/Tweet Similarity
Account Reputation	Mention Ratio

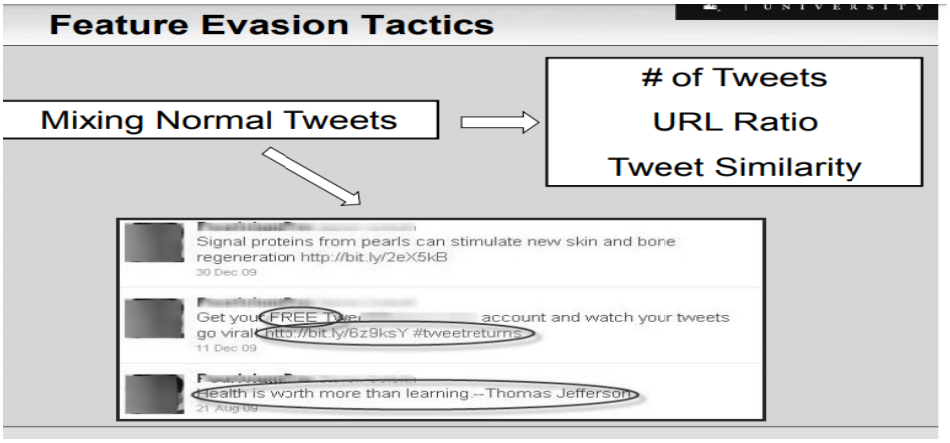
II. Our Goal : Discover Evasion Tactics.

Design New and Robust Detection Features.

Formalize Feature Robustness

III. Data Collection of Spammer accounts, Malware spreader, adware spreader & other Hijackers.

IV. Evasion Tactics: Profile-based Feature Evasion Tactics like a label or Ratio pf friends, followers & fan than further lots of filter & financial packages level wise.



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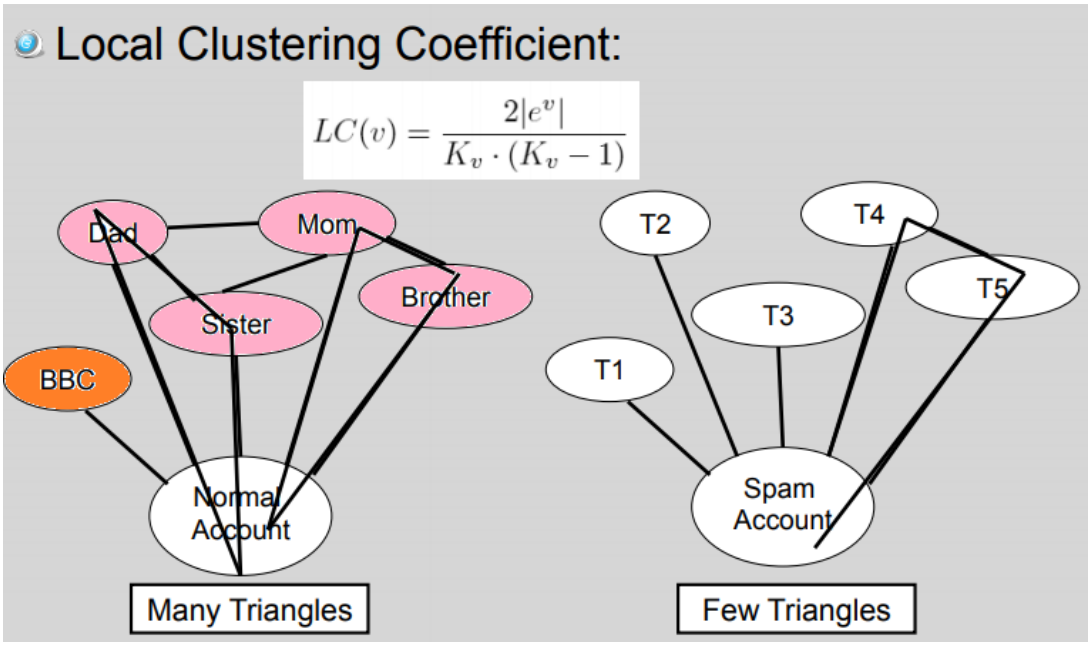
V. Designing New and Robust Features

- ✓ Graph-Based Features
- ✓ Neighbor-based Features



Automation-based Features

Many spammers utilize customized and automated spamming tools designed using Facebook, WhatsApp, and Twitter API to post malicious post. Especially, if a spammer maintains multiple spam accounts, it will be expensive to organize them to post malicious tweets only manually.

Identification of Spammer BY:

- API Ratio
- API URL Ratio
- API Similarity

Timing-based Features

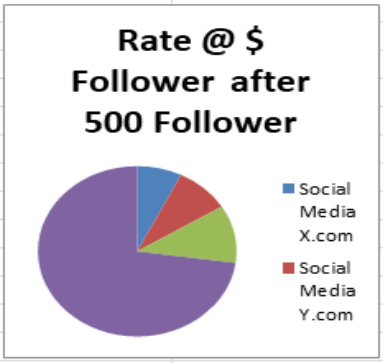
VI. Formalizing Feature Robustness.

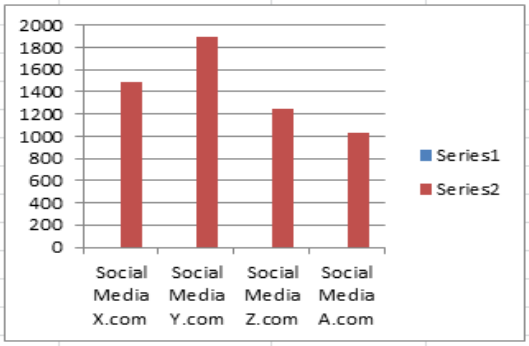
In order to be robust, a feature must be either expensive or difficult to evade

Tradeoff between the spammers' cost C(F) to evade the detection and the profits **P(F) [R(f)=C(F)-P(F).**

Robustness of Profile-based Features :

Website	Rate @ $ Follower after 500 Follower	Follower	Website	Free Follower	Follower
Social Media X.com	0.0049	129	Social Media X.com	0	1486
Social Media Y.com	0.006	214	Social Media Y.com	0	1900
Social Media Z.com	0.0074	59	Social Media Z.com	0	1245
Social Media A.com	0.049	485	Social Media A.com	0	1035





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VII. Evaluation:

Machine Learning Classifier:

- Decorate (DE) , Random Forest (RF)
- Decision Tree (DT) , Bayes Net (BN)

Two Data set:

- Data Set I: 5,000 normal accounts and 500 spam accounts.
- Data Set II: 3,500 unlabeled accounts.

Evaluation: Data Set II:

- Newly crawl 3,500 unlabeled accounts

3. Analyzing Malicious Social Networks.

I. Cyber Criminal Ecosystem

- ✓ User Category.
  - Legitimate
  - Victim
- ✓ Criminal Supporter Community.
- ✓ Criminal Account Community

II. Research Goals

- ✓ What are the structures of criminal accounts network?
- ✓ What are possible factor & reason leading to that structure?
- ✓ What are typical characteristics of criminal supporters?
- ✓ Can we design new defense algorithm to catch more criminal accounts? Yes……

CONCLUSION

OSN: emerging attack platforms, also a new opportunity to study the community of cyber criminals

We present,

New robust features to detect malicious identities, Empirical study of the cyber-criminal ecosystem, Security in social computing/networking.

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SECURITY ISSUES IN SUPPLY CHAIN MANAGEMENT SYSTEM

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ABSTRACT
Supply chain management (SCM) is the set of assignments required to plan, control and execute a product's flow from raw materials to production & final production to distribution in efficiently with more economical way possible.Nowadays, the companies are tried to expand the SCM working flows smoothly using modern internet based technology in real time. Hence the various security issues may arise in SCM environment due to the increase of communication between two parties like business to business or business to customer via internet. Secure authentication environment is needed to mitigate the risks regarding SCM communities. However, this paper represents the process framework of SCM and its components. It also focuses the security issues in respect of shared information through network and their possible countermeasures.

Keywords: SCM, Process model, Components, Security issues & Countermeasures.

1. INTRODUCTION

The term SCM was first introduced by Oscar Gomes, a consultant at Booz Allen Hamilton in 1982 to the public domain for the Financial Times. In M-Commerce, SCM is a system of organizations, people, activities, information, and resources which are involved in terms of supplying products or services to the consumer. SCM is also involved for transforming natural resources & raw materials into a final product that is delivered to the consumer [1].

According to AMR Research and Forrester Research,the implementation of SCM allows the companies benefit like competitive advantages to reduce the product's cost and order processing time by 20-40%, reduce purchasing costs by 5-15%, reduce time toreach market by 15% -30%, reducethe warehouse inventory management by 20-40%, reduce the finalproduction costs by 5-15%, and profits of the companies are increased by 5-15% [2].

Supply chain companies are needed to look manufacturing flexibility to improve the level of flexibility to the customers. By the early 1990s, supply chain communities observed that the importance of making an alliance with their upstream and downstream functionalities. In recent years, many companies have taken a decision to break down their barriers to build alliances, with the aim of reducing uncertainty and improving the control of supply and distribution channels. This technique is used to achieve high level higher performance and fulfill the customer needs [3].

The recent trends to the development of SCM technologies which is intertwined among manufacturers, suppliers, contractors, transport andtrading companies are intertwined through secure network. Since, there is a transparency of alliance activities, adapt to customerrequirements, as well as quickly bring new finished products to themarket applying advanced methods of prediction and planning.With rapid increasing competition among supply chain companies regarding transparency & flexibility, SCM is suffered by many critical security issues in modern organization [2,3].This is concerned that the working flows of SCM are affected by active attacks as well as passive attacks. Therefore, itis required to ensure all involved parties in SCMthat IT security, data protection, user privacy, and security policies are being defined and audited periodically.

The paper is organized as follows. Section 2 describes the components and process framework of SCM. Section 3 describesnetwork based security issues and their possible countermeasures in SCM paradigm. Section 4 concludes the paper.

2. COMPONENTS AND PROCESS FRAMEWORK OF SCM

SCM is the coordination of material, information & financial activities flows among all the alliance enterprises in a supply chain stream. The following figure depicts the crucial SCM regarding information & payment flows [4].

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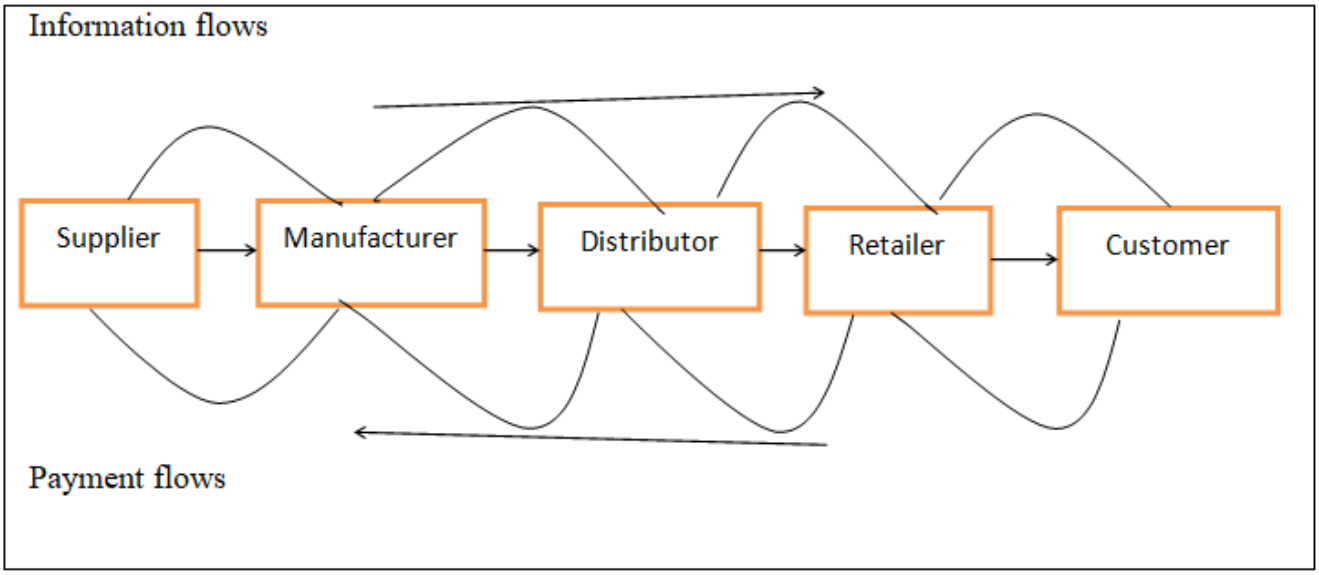

Figure – 1: SCM system

To achieve the goal of reduced cost & cycle times between customer and dispatch of finished product, supply chain companies are tried to rebuild relationships with their supplier, manufacturer, distributor, retailer and customer.

SCM consists of following components which are influenced by E – commerce activities [4].

1. Supplier management: It is mainly used to build relationships among suppliers and also reducing the number of suppliers. Here Internet plays an important role to establish the relationship with global suppliers in real time.
2. Inventory management: This is introduced to help the reducing the cycle time between order & delivery using E – commerce technology.
3. Distribution management: This is required to move business documents, purchase bills, & shipment notices, etc. between supply chain companies with the help of EDI (Electronic Data Interchange).
4. Channel management: Business information such as policies, delivery time schedule & prices, etc. is transferred to trading partner. This is achieved by using email, bulletin boards, etc.
5. Payment management: This is required for sending & receiving payments between supply chain companies and suppliers through online electronics fund transfer process.
6. Sales force management: This is required for improving the communication flows among sales, production & customer service through automation.

Therefore, there are two primary models in SCM. This is represented in the following way.

In a push-based supply chain system, the following features are found [4, 5].

- Production decisions are based on long-termforecasts.
- Orders from the retailer's warehouses are used to forecast customer demand.
- Manual purchase order.
- High inventory leads to high inventory cost.
- Inability to meet changing demand patterns.
- Increases transportation costs, heightens inventory.
- Promotion through verbally.
- All the functionalities are simulated through manually.

In pull-based supply chain system,the following characteristics are found [5].

- Priority is given to actual customer demands rather than forecast in driving production.

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- The supply chain uses fastinformation flow to transfer information regarding customer demand to all stocking points of production.
- Automatic replenishment using EDI services.
- Automated purchase order through EDI.
- This leads to a reduction in lead times and system cost.
- Online promotion.
- All functionalities are executed via online.

The following figure represents the process of push & pull based SCM system.

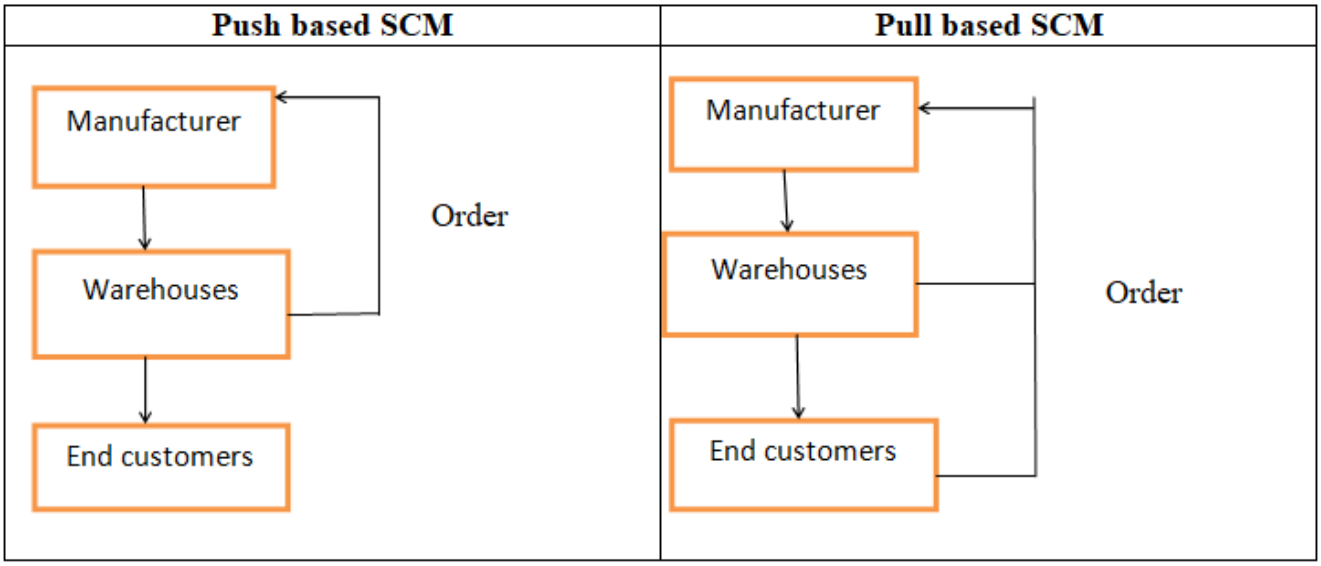

Figure – 2: Push & pull based SCM.

From the above figure, we can observe that the pull based SCM does not depend on customer forecasting method. This relies heavily on E – commerce systems than push based SCM.

Now, how to elaborate the working flow of consumer's order for the specific products in SCM is shown below the figure.

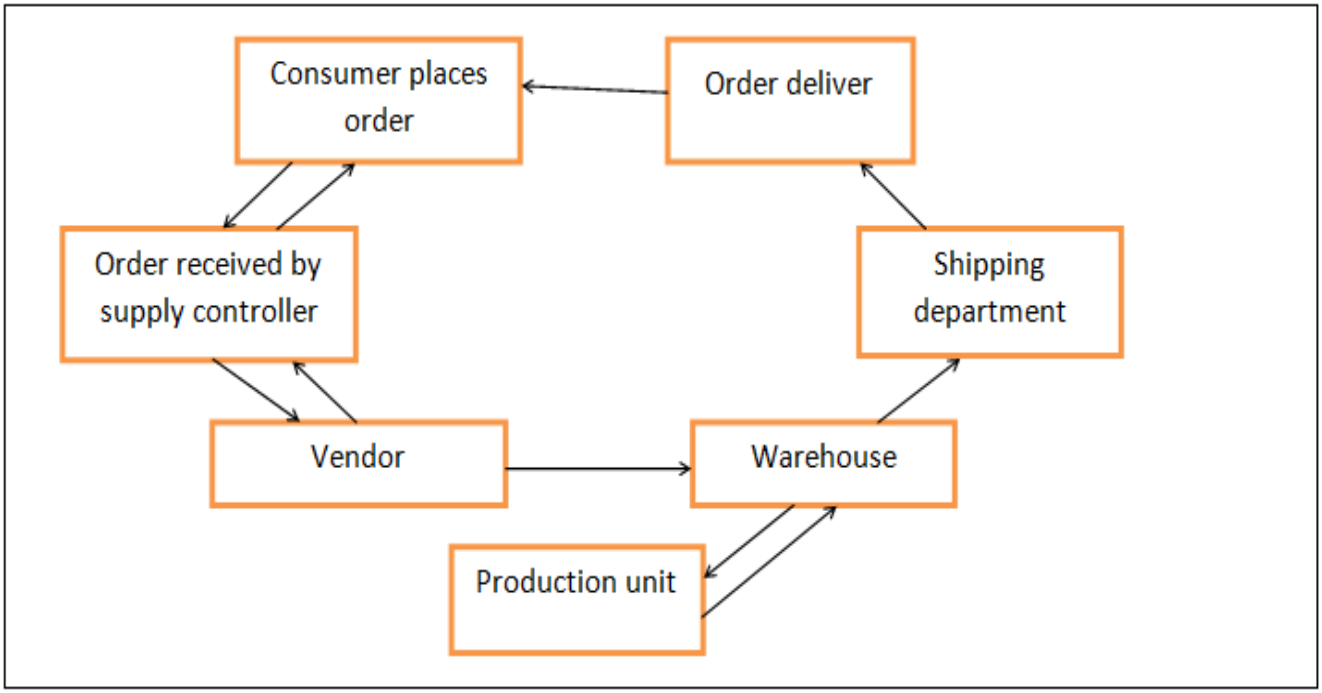

Figure – 3: Secure customer order cycle.

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Secure process of ordering and delivery of goods and services in SCM are maintaining the following steps [6]:

Step 1: Consumer places orders for the specific products through online.

Step 2: Supply controller authenticates the order whether the order is fake or not.

Step 3: Supply controller receives order & proceed to the vendor.

Step 4: The vendor delivers the specific product which is ordered by consumer to the warehouse.

Step 5: The production unit is intimated about the receipt of the products.

Step 6: The products are picked & packed by shipping department from the warehouse.

Step 7: The specific ordered products are delivered to the consumer.

Step 8: Supply controller confirms that the delivery is received by the customer.

Key point of the above secure process is that the supply controller's interaction with the customer starts and ends in the following ways:

- Supply controller checks the customer's placed order using authentication technique. If order is genuine, then order will be proceed. Otherwise the order will be rejected.
- Supply controller ensures the delivery with the help of non-repudiation technique when customer receives the delivery.

3. NETWORK BASED SECURITY ISSUES AND COUNTERMEASURES IN SCM

Nowadays the supply chain companies are more focused on the use of network based technology ratherthan its security concerns. Here various interactions among E – commerce models such as C2B (consumer to business), B2B (business to business) are required to achieve optimum level SCM. However, there is various security issues may arise in SCM. These are as follows:

1. **Identity issue:** Nowadays companies are tried to improve the monitoring and tracking of inventory items, reducing human efforts and hours required to track the inventory using modern technology like IoT device. The modern technology store the information (product name, ID, etc.) about the inventory items into remote database.Here connected IoT devices are assigned by Domain Name Servers (DNS). But DNSs are also vulnerable of different attacks, such as man-in-middle attack, DNS cache positioning attack and so on. Such attacks may arise due to week authentication mechanisms are used. As a result attackers may hacked device identity and perform different kind of malicious activities within the network [7].
2. **Information related issues:** A variety of crucial information services can be delivered to mobile phone users through wireless communication. These services include: News, Stock quotes, Sports reports, financial records, traffic information, etc. But there is several security issues may arise in favor of involving wireless communication. These are not only traditional security issues, such as network eavesdropping, and denial of service attacks, but also there are Mobile cloud specific issues, such as side channel attacks, virtualization vulnerabilities [8].
3. **Storage issue:** The large amount of information is generated by SCM communities at the time of product's order processing & stored them into the remote database. But what kind of information will be stored for how many days is not properly clear. This may lead to energy issue [9].
4. **Privacy issue:**Many times, technology contains voice recognition or other credentials related to consumers as well as organizations. This makes data privacy issue by compromising the information in illegal way [9].
5. **Supply controlling issue:** In respect of modern technology, there is no control over upstream supply chain management. This means that the consumers do not have sufficient information about the Internet based supply chain of the ordered products [10].
6. **Authentication issue:** Supply chain communities collect the information regarding the products as well as consumer (contact &shipping address etc.) using network based technology and store them into the remote database for enhancing the performance of supply chain system. Here multiple smart devices work together to track the information about dispatched products at real time. If any connected smart device is compromised, the sensitive information may be exposed by the attackers. Here security challenges may increase by the use of default or week passwords on any end user device.

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7. **Data Leakage:** The customer needs to put personal information at the time transaction via mobile app. The Intruders can easily exposed user's credential like password, PIN number by manipulating vulnerabilities of the services [11, 12].
8. **DoS Attack:** In this attack, Attackers can destroy the availability of the service by offering a smoke screen to carry out several attacks to steel non encrypted user's information [11, 12].
9. **Customer experience:** In respect of customers, customer's trust plays a vital role in E – commerce. SCM is also facing the same issue because today users do not trust technology. They are afraid of making any kind of financial transaction using mobile applications.

To overcome the above said security risks, the possible countermeasures are listed in the form of following table.

Security issues	Requirements	Popular applicable algorithms in SCM
Identity	A device identity based WAP enabled authentication (cryptographic) algorithm may reduce the DNS associated issues.	Security uses the wireless transport layer security protocol (WTLS).WTLS support some algorithms like diffie-Hellman, RC5, SHA-1. It also support some trusted method like DES and 3DES.RSA, ECC, AES [16].
Information related issues	The following possible information related security requirements may reduce risks-(i) integrity (ii) confidentiality and (iii) availability [13].	SHA-1 and MD5 MAC algorithms; Message protected using RSAwith SHA-1[14].
Authentication	PKI (public key infrastructure) is needed to authenticate all parties involved in SCM.	A PKI uses digital signatures and digital certificates based on asymmetric encryption such as RSA or elliptic curve cryptography (ECC) [15].
Privacy issue	Light weight secure access control mechanisms.	Biometrics, Access control lists (ACLs), IPS, Antivirus and Anti-spam and Firewall [17]. IDEA & AES algorithms are also used to overcome privacy related issues.
Denial of Service (Dos), Replay Attack, data leakage.	Confidentiality, Integrity, Availability, Authentication, Privacy.	Hash Algorithms, Cryptography Algorithms (RSA, AES), Access Control, Key Management (PKI) [17].
Trust	A secure wireless environment is more potential to the consumers.	Blockchain solution which is well-designed to prevent tampering and establishing customer's trust in SCM [18].

Table – 1: Summary of countermeasures regarding security issues in SCM.

4. CONCLUSIONS

Security requirements play an important role to improve efficiency & flexibility in respect of working flows among supply chain communities. A secure authenticationtechnique is required for large volume data sharing and privacy requirement for relatively small volume data sharing among SCM enterprisers is needed. This paper represents the components & process framework of SCM and also focuses the network based different security issues & their possible countermeasures. However, our future work will be deliver a secure lightweight IoT based M – commerce architecture using machine learning.

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TEACHING INNOVATION, RIGHT NOW: TECHNOLOGY DELIVERS A NEW EDUCATION AND TEACHING IMPERATIVE

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ABSTRACT
In every spectrum it is encouraging the use of the technology to gain the knowledge, ideas more than what we have not had in a couple years back. The skill required for the future knowledge society to be, we have to have the comprehensive input on new innovation rather the technological knowledge either. The knowledge on technology enhance teacher to be positive in his attitude towards the learners who are absolutely smarter in using and connecting it with the world. The platforms we have in the name of the technology more often than not escalate collaborative engagement with the wider disciplines, ways, and dimensions. Basically pivotal and rather sophisticated skill and sensing that we get from technology is that our personal development. The process and the entertainment is being attaining from the technology is that dimensions of e-leaning and e-teaching. The amazing terms floated from the introduction of the technology and the key points for the teachers as well as the learner apparently are that they incline to have been working for the culture that a progressed society always dream.

Keywords: Technology brings new panorama, Technology and education, Global community prospective and Let us not lavishes the time

INTRODUCTION
We were having education system that was enthusiastic and were capable of being competent with the revolutions:globalization,liberalization and industrialization in a long run.What we have right now in the recent climate of the development apparently in the name of technological innovation probably outshine that stuff that what we have not achieved so far in terms of education equity .In fact even after the outstanding policies and implementation being adopted in education field, we are obviously lagging behind in floating the very ideas of equity. Neither are we exempted this overruled rhetoric spell out from some who would like to have our large spectrum of the society being marginalized and collapsed and it is maybe because of some collective stringent action have been taken on outward determinations prejudiced over a society. It is also being coincided with the discrimination of the other domains of our life as well. Dividing in the name of the religion, caste and region was basically the belligerent and hawkish deeds that have been for many centuries.

We had had feeling often that how difficult the stuff we prepared could be reaching to our students, therefore, we encountered various approaches that are entertaining students learning processes either. Satisfying the digital natives requirements more often than not harder and seems to have flexible methods that could influence in their overwhelming style of comprehending the ideas and the more we are familiar with digital literacy, the more easy we will be making them pleased. Pupils sophisticated technical skills that most of the teacher generation do not have feel perplexing and sensing their caliber of multi-tasking and gratification ought to have supported in such way that we the digital immigrants have to have sensible a collaboration of what we have knowledge and comprehensions with what ought to have that to be surfaced otherwise the time will disclose your weakness that will absolutely not be endured.

TECHNOLOGY BRINGS NEW PANORAMA
When we unveiled the changing style of the lives in every endeavors, dilemma we had in our time of the past will not pop up again in our life .The explanation of the technology might not coincide with the dilemma unless we take it wittingly. The conducive atmosphere that can be triggered through the technology, as far as the field of education is concerned, is huge and it obliviously accelerates our thinking style and will have incredible resulted oriented future, research focused education, breakthrough in teacher student interactions, stunning triumphs in our socio economic life. Of course and it could retain the power of flexibility in knowledge learning ,skill acquiring dimensions and enable us to figure it out what to be next in doing for our future safety. Perhaps brilliancy underscored in the perfection of its artist caliber undoubtedly enhances the spectacular growth of our education at large.

The jurisdictions that is underpinned significantly in the task that is supposed to unveil by the technological input outshines either work what we have been on since many years and however rhetoric of its perfection is absolutely determined on how we use it in our life. The perfection would always be escalated in overnight and it could surpass with our brilliancy in utilizing it more often than notthan we ever anticipate and it deems to be

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qualifying our all accomplishments, not only does it obliging in our education at general sense but also when we approach our life as a social human being.

TECHNOLOGY AND EDUCATION

Technologyis one of the amazing innovations we have right now and encountering the ways to adjust with it pretty more relevant that absolutely determine our future prospects of education. Once we had had a time when there was no that much access to the education and partially or fully some are cut off from formal education. The time of disaster we are witnessing making the people losing their job, disconnecting from the formal education. Once we had had the system where few advantaged get educated and some other high castes being constantly access to well-structured school and there had been long time of inequities in the great domain of education.

The scenario changes that traditional school stereotype collapse it could literally the changes those rigid customary of saluting the people who has some dignity either in family or the community he dwells or the region he hails from. However that panorama has changed and right now it is amplifyingmore on the perfection in personal skills and showcasing our potentials weguys have to be encountered that upholds whether you win your life or not and the transparency and the coverage what we had not had once in the old times scintillate our triumph in either in the arenas you work and or in the field you market.

There new opportunities to pilot new ideas in higher education basically associated with the hard work we usually do and we have to switch an illusion and myth we had had to be overshadowed and obvious reason is that we have number of opportunities that never had been before, however, encountering the ways it veils should be disclosed in the sense that utilized and thereby we embrace the new ideas and philosophies. Unless we persuade the transformation in our systems, that eventually does undermine our scope of getting job, creation of the opportunities for the next generation etc.and will be chaotic. Usually it buoys up the new innovation that ultimately underpins the different outlook of our life that we never had witnessed before.

GLOBAL COMMUNITY PROSPECTIVE

The terrific ideas that we have that unwelcoming the progressabsolutely will nullify your headways in having educated. It should keep going and the unexpected calamities are an eye opener that triggers handsome quality of the brilliant guys who always is looking forward to have new opportunities. Learner's gorgeous quality of the learning in using the technology multiplies the result that handsomely improves the outcome as well. Experiential learning and hands-on experience being provided in the classroom will mount the ability of critical thinking and self-leaning approach that will eventually determine this development in the future. New generation of delighted and hilarious would be our educational objectives .The pupil eventually will pioneer the various and miscellaneous jobs and they will be interlocutor for policing making ,administrations, policy makersand the pedigree what we have will represent our society ,our culture and the national. The mandated quality of the pupil that could nourish from our school is character building.

Another kind of rhetoric has started to slink in our conversational platform nowadays that the flexibility and the influence what technology could enhance. It is started peddling in our medias still we have no conclusion or the clarity that how far it is being used and the ways of the usages, and types of the boon and evil being created to the students. What technology will eventually will do to our domain of education and will the teachers be replaced or substituted? These are rather major questions are being floated in every walk of life. It is pretty fair in thinking that the way we use technology in the class room and being forced by the government and the requirements from the students to force to utilize it.

LET US NOT LAVISH THE TIME

Utility of the resources and the exaggerated quality is supposed to have to be endearing the future abilities explicitly elevating the caliber what will have to be the best contributors for the society and the community. The avenues what we have in education and other enterprises will churn out pretty fair result so long as we work hard and notwithstanding the quality gorgeous ideas in technology ease our work culture; collaboration, cooperation, interaction with peers, peer teaching and learning. The content once collaborated in the group they will have the opportunity of hands own learning and the experience which they have from that leaning with interactions of course been benefitted for lifelong learning. Peer interactions and presentations also will provide the platform to the pupil who are either of those whose quality are less comparatively other students gets motivated and the scaffold learning for those who have little sensitive in learning skills automatically gets more interested and have create their own pace of learning when they progress. Every system converting to online education the technology is the term that can surpass the human ability unless we use it for our personal as well as professional life and the overwhelming influence of technology in education is more or less is quite

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influencing our whole education system and the class room education will be exclusively ubiquitous incorporation of technology and eventually our life will be being fairly depended to the technological influence.

Mounting pressure both the learner and the pupil unless we have changed ourselves to incorporate the speed of the technology ,we no longer be depended to four walls of the class room it is a moment where we ought to have endorsed on technology and if we have the knowledge what we supposed to have will triumph our quality .Indian students after their exam getbaffled orbewildered in the encounters with the learners of America, UK, and China. In interviews, the quality what they are having and we are not holding that the skill of technological perfectness. Our students perhaps are good at the communication and maybe failing showingbad performance in technical kill and get frustrated in displaying the caliber and get enthralled at international job market. However, education system pretty hot right now and unless new ideas being floated in this platform ,we are going to have big mess that absolutely will perpetuate our chaotic in personal and social life .Indian schooling and universities are failing to produce the skill that required to be pretty required right now. New phase of the technology typically ask for the specialization and hands-on apprenticeship and however most students seem or appear to be dabbling and outrageouslycannot outshine the international students in their careerselection,business and education.

CONCLUSIONS

Technology enhances the leaners to explore the knowledge that seems to be self-learning and self-directed goals oriented. The divergent thinking style and the global perspectives areensured through these processes of acquiring comprehensions and skills required to be the best worker in workforce. We had the experience of searching catalogues of the different libraries for the information we would like to have for immediate requirements. Comprehensive use of the technology will enrich teacher either and can enjoy for orchestrating their knowledge and increased teaching skill. Interesting pedagogical approach being practiced through technological exaggerations is that a teacher does not teaches those guys who cannot not read and write but those who cannot learn, unlearn and the thing which he learned to unlearn.

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DIESEL HYBRID ENERGY SYSTEM & SIMULATION MODEL OF SOLAR PHOTOVOLTAIC

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ABSTRACT
The integration of renewable energy sources such as PV system and diesel energy system are an excellent option for distributed energy production. The integration of different configuration is reliable and efficient. Conventional PV system bears unstable output characteristics and thus its integration with other conventional sources increases the utilization and energetic efficiencies of energy conversion system. Optimal Battery Energy storage for grid connected PV System is used in hybrid system to store the energy absorbed and to be used later. The procedure adopted here is the power can be brought from the grid as well as can be fed back to the grid when surplus power is stored in battery. The proposed energy management technique is tested in simulation under different scenarios and the obtained results demonstrate the effectiveness of the proposed approach.

Keywords: Solar Photovoltaic, Diesel Energy System, Hybrid Energy System, Maximum Power Point Tracking

I. INTRODUCTION
Hybrid renewable energy systems (HRES) are becoming popular as stand-alone power systems for providing electricity in remote areas due to advances in renewable energy technologies and subsequent rise in prices of petroleum products. A hybrid energy system, or hybrid power, usually consists of two or more renewable energy sources used together to provide increased system efficiency as well as greater balance in energy supply. Rapid depletion of fossil fuels has necessitated an urgent need for alternative sources of energy to cater the continuously increasing energy demand. Another key reason to reduce our consumption of fossil fuels is the growing global warming phenomena. Environmentally friendly power generation technologies will play an important role in future power supply.

The renewable energy technologies include power generation from renewable energy sources, such as wind, PV (photovoltaic), MH(micro hydro), biomass, ocean wave, geothermal and tides. In general, the key reason for the deployment of the above energy systems are their benefits, such as supply security, reduced carbon emission, and improved power quality, reliability and employment opportunity to the local people.

1.1 Solar-Diesel Hybrid System
A Solar PV diesel hybrid system usually consists of a PV system, diesel generator sets and intelligent management to ensure that the amount of solar energy fed in the system matches the demand at that time. PV systems require large storage arrangements which make them a costly option. Consequently, solar PV system integrating diesel generator with battery storage is an efficient solution in which the disadvantage of one can be overcome by the advantage of another. Diesel engine is integrated with solar photovoltaic such that there will be uninterruptible power supply throughout to avoid the energy crisis. Hybrid power systems are formed when there is a combination of at least two different power sources. This could be a renewable energy sources plus a low- carbon resource.

A solar PV system becomes feasible at an average irradiation of 3-6 kWh/m^2 per day which is about 1825 kWh/m^2 per annum.

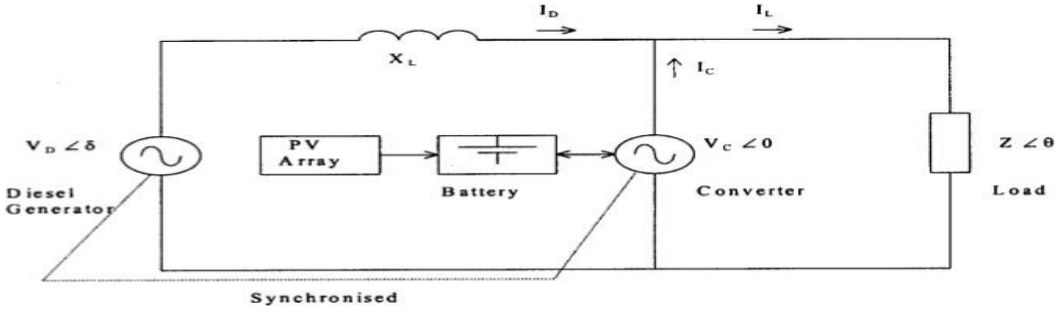

Fig 1.1: Equivalent Circuit of PV-Diesel HPS

1.2 Physical description of the PV Field
The PV field is the renewable energy power source of the plant. It is mainly composed of the PV modules and the electrical inverters. The PV modules convert the solar energy to electrical energy in the shape of DC current.

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The output power of the PV modules is a function of the solar irradiation on the field and the nominal peak power. The inverters of the PV field convert the DC current into AC current at the frequency of the grid. The inverters can also control the output power by changing the operation point of the PV field. However, it is not possible to increase the output power to more than the maximum power point at a certain irradiation.

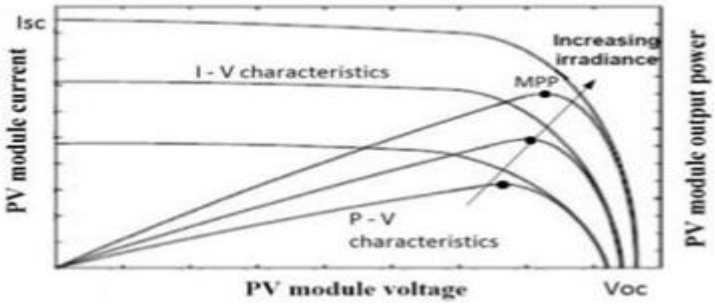

Fig 1.2: The I-V and P-V Characteristics of the PV Field

1.3 Maximum Power Point Tracking

The Maximum Power Point Tracker (MPPT) is needed to optimize the amount of power obtained from the solar PV system to the power supply. The output of a diesel generating system is characterized by a performance curve of voltage versus current. This value can be determined by finding the maximum area under the current versus voltage curve. The inputs of the MPPT consists voltage and current outputs. The adjusted voltage and current output of the MPPT charges the power supply. Hardware and software integration was necessary for the completion of this component. The Perturb & Observe Algorithm is used in this Maximum Power point tracking method. The P&O algorithm calculates the present available power and subtracts it from the previous power value to find the difference (ΔP). As long as ΔP remains positive, power is increasing. However, when $\Delta P < 0$, the controller moves in the opposite direction, and thus continually moves in the direction that ensures the greatest power. This perturbation causes the power of the diesel generating unit changes. If the power increases due to the perturbation, then the perturbation is continued in that direction. After the peak power is reached the power at the next instant decreases and hence after that the perturbation reverses. When the steady state is reached the method oscillates around the peak point. A PI controller then acts moving the operating point of the system to that particular voltage level. The P&O algorithm periodically measures the PV voltage (VPV) and PV current (IPV), computes PV power (PPV), compares it with the PV power calculated in previous perturbation cycle and applies perturbations to PV reference voltage (VREF) by incrementing or decrementing it.

1.4 Model of Diesel Generator

The model contains three main blocks. The electric control box is an analogue controller type PT1, which gives the control signal. The actuator converts the control signal into a signal of fuel flow rate (throttle). The engine block represents the delay of the combustion to convert the fuel signal into torque signal.

The analyzed governor has droop characteristics, which are determined by the parameters of the model. The parameters should be configured in order to approximately simulate the actual performance of the diesel engine.

SIMULATION OF SOLAR PV- DIESEL HYBRID SYSTEM

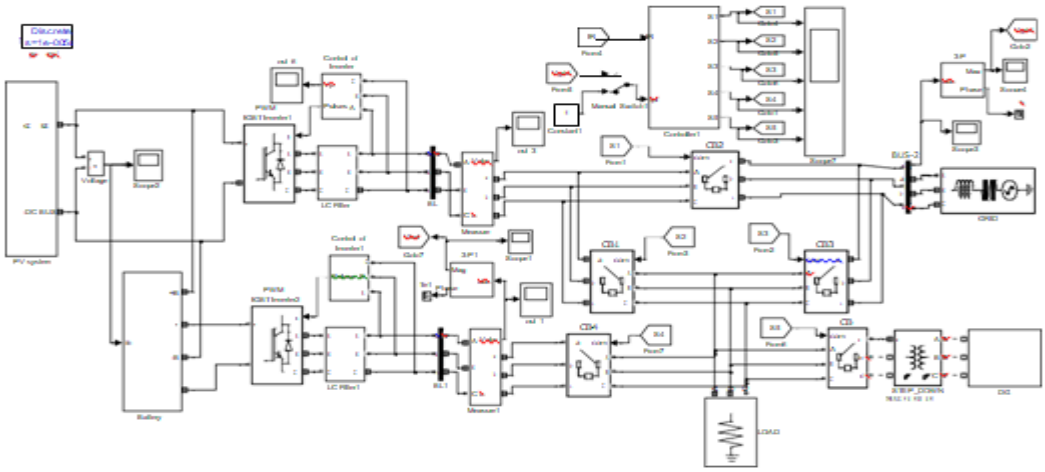

Fig 2.1: Simulation Model of Solar PV- DG Hybrid System

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A model is constructed in MATLAB Simulink to create a PV generated system. The samples of the various waveforms are taken for further analysis. A detailed model of PV system is shown for both constant as well as variable solar irradiation. There are 66 cells connected in series. The output of a single cell is 5.87 V. The total output of the PV cell is 20 KW.

The equations for the calculation of photon current and reverse saturation current is given below:

$$I_{ph} = [[(T_{ref} - T)\mu] + I_{SC}] \quad \text{---------- (1)}$$

$$I = e^{\wedge} \left(\frac{E_g q^2}{k} \left(\frac{1}{T_{ref}} - \frac{1}{T} \right) \right) \left[\frac{T}{T_{ref}} \right]^3 \quad \text{---------- (2)}$$

$$I_{ref} = \frac{I_{se}}{e^{\frac{V_{oc}\, q}{K T N_S A}} - 1} \quad \text{---------- (3)}$$

T_{ref} = Reference temperature= 25+298=323 k

T = Actual temperature

I_{SC} = short circuit current

E_g = Band gap=1.2

N_s= Number of cells connected in series

G= Solar insolation=1000 W/m2

I_D = Diode current

The parameters of solar PV cell on which the output of the cell is dependent are temperature of the solar cell, irradiance. The temperature reference is taken to be 25^0 C and the irradiance is taken to be 1000 W/m^2.

2.1 Hysteresis Control and MPPT Control

The voltage output obtained from the PV cell is tracked with the use of MPPT controller based on Perturb & Observe algorithm. The maximum power point is traced by varying the duty cycle to match the maximum power point whether increasing or decreasing fron the MPP.

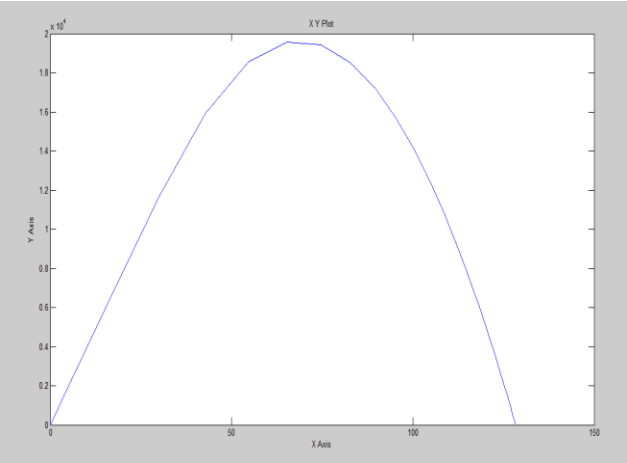

Fig 2.2: P-V & I-V Graph of PV Cell respectively

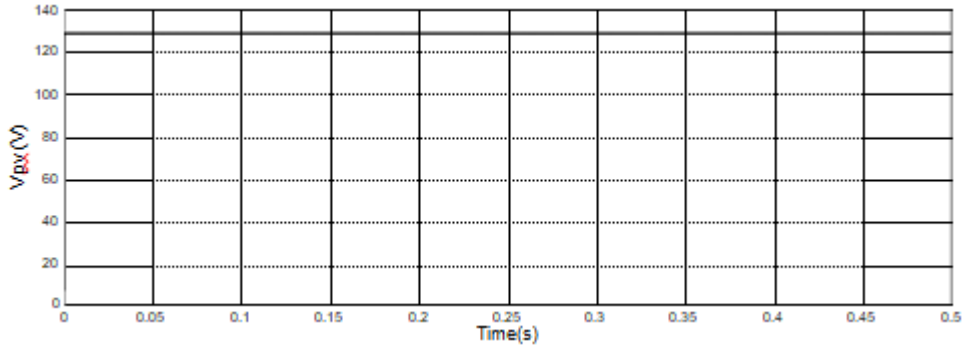

Fig 2.3: Voltage output of PV Cell

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The output voltage of the PV cell is measured to be 130 V. The maximum power to be obtained from the PV cell is tracked with the help of the MPPT based on Perturb & Observe algorithm. The output from the MPPT controller is regulated with the help of the CUK converter.

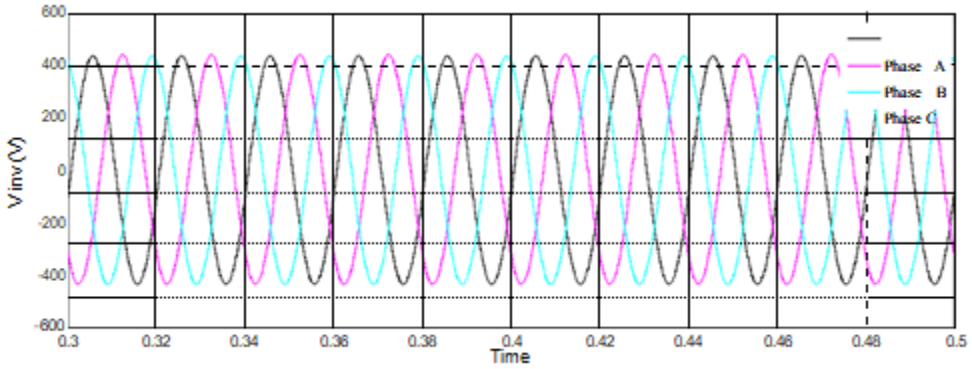

Fig 2.4: Inverter Output

The output obtained from the PV cell is in DC whereas the output obtained from Grid is in AC. Therefore, to convert the DC power to AC an inverter is used. The output from the inverter is controlled by the hysteresis control action. It takes the input as the reference current and actual current and when both remains same, there is no need for the controller action. Alternatively, the error is obtained as positive or negative according to which the control action is carried out.

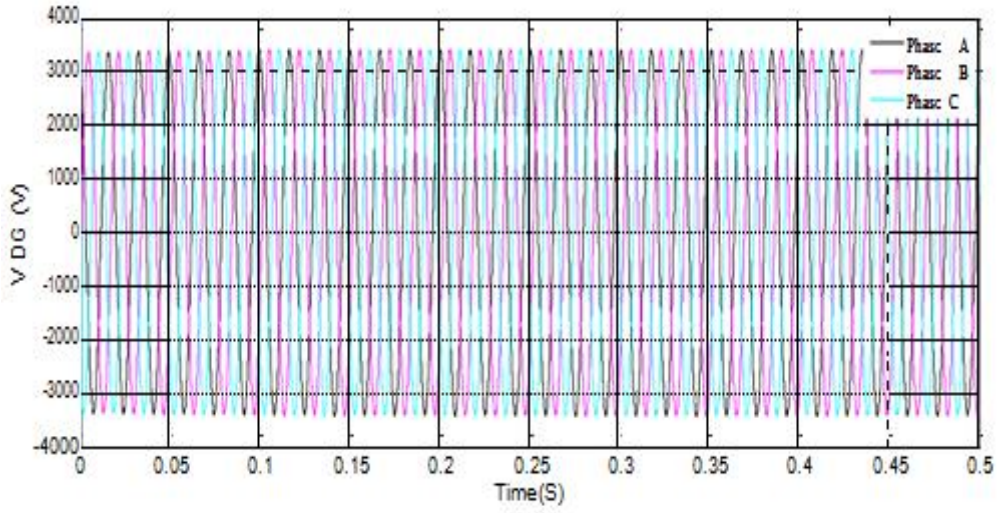

Fig 2.5: Output of Diesel Generator

The Diesel Generator is connected to be operated in the emergency condition to satisfy the load demand. The power output from the Diesel generator is 3KW.

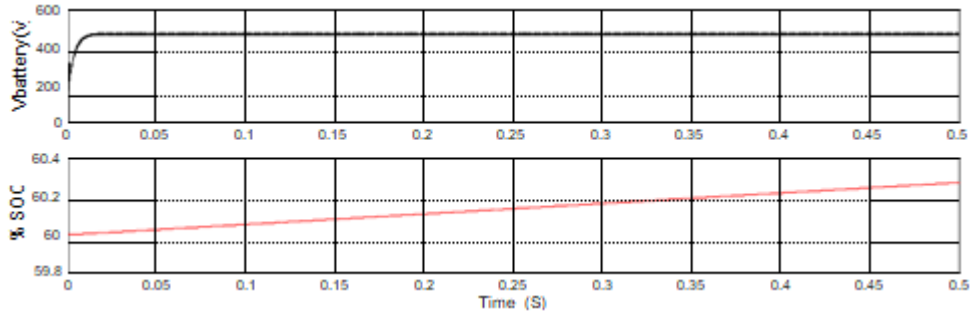

Fig2.6: Charging and Discharging Condition of the battery the output of the switching characteristics is shown below:

Case 1:
In this case the PV remains unhealthy and only the Grid remains active and supplies power.

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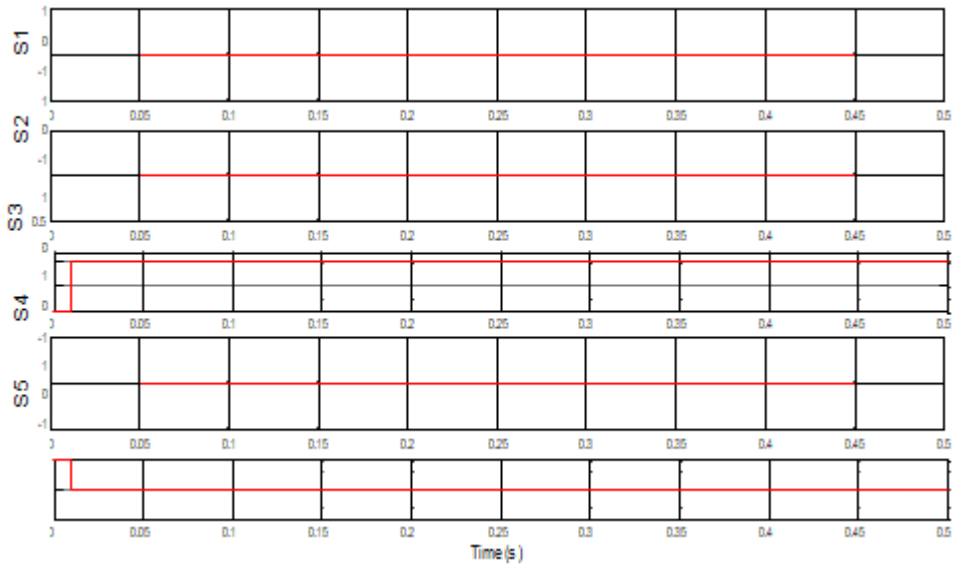

Fig 2.7: Only Grid healthy

Case 2:
In this case both PV and Grid are in operation. Power flow is from PV to grid and Grid to load. The battery remains on, but battery does not supply power to the load.

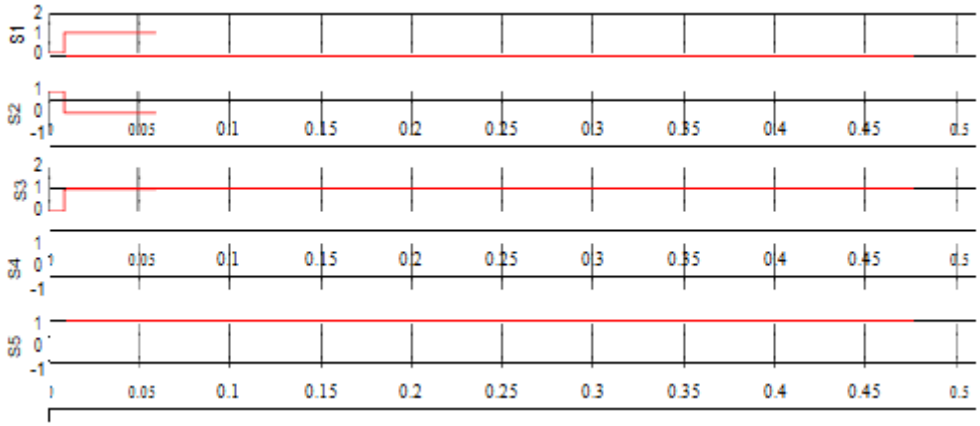

Fig 2.8: Both PV and Grid healthy

Case 3:
The PV panel only supplies power to the load and the grid remains unhealthy. The battery remains on but does not supply power to the load.

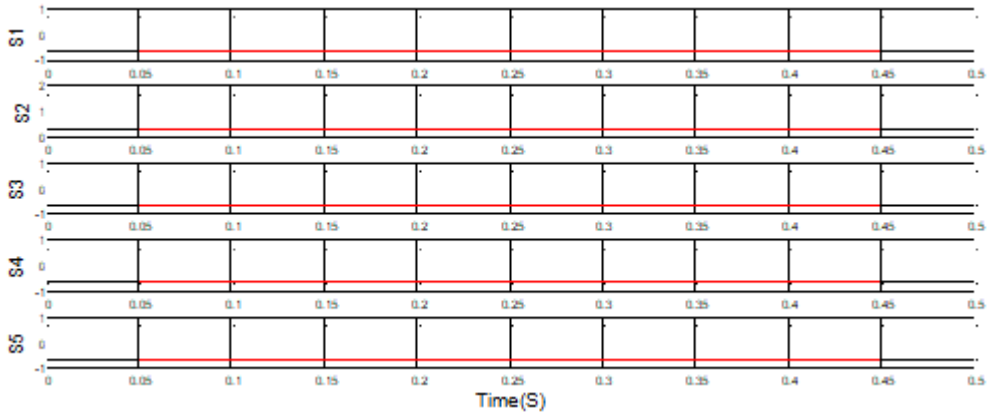

Fig 2.9: Only PV healthy

Case 4:
When the battery is fully charged during the above cases with the power from PV and Grid, it supplies power to the load as a backup when both grid and PV are not in action.

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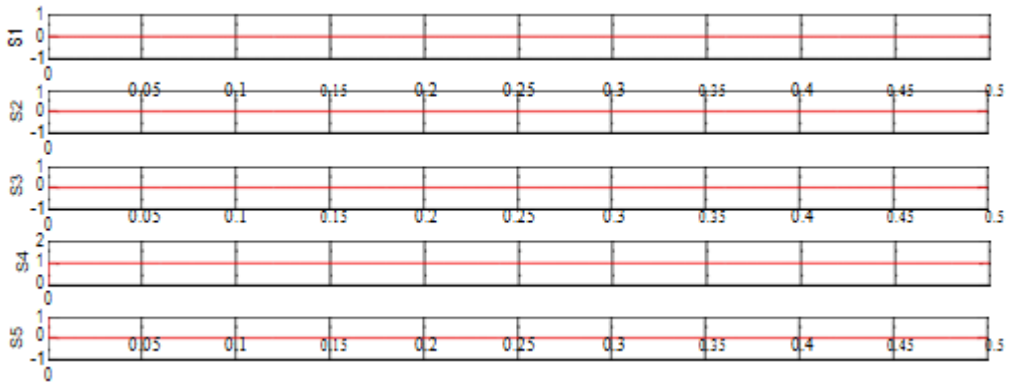

Fig 2.10: Both PV and Grid failure

Case 5:
In this case the Diesel Generator is used as backup in emergency condition when battery is completely discharged, and PV panel and Grid are out of action.

Fig 2.11: All PV, Grid and battery unhealthy. Only DG active

II. CONCLUSION

In this paper, solar photovoltaic is integrated with Diesel generator as a hybrid energy system for the fulfilment of increasing energy demand with the rate of increase of urbanization and industrialization and thus avoid the energy crisis. Diesel generator is used for the uninterruptible power supply during the emergency conditions. Perturb & Observe MPPT algorithm is used for tracking of maximum power point such that the system is operated with maximum ratings. Optimal Battery Energy storage for grid connected PV System working is also described in the paper.

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INFLUENCE OF YOGA IN REDUCING MENTAL STRESS OF ADULTS: A STUDY FROM KERALA, INDIA

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ABSTRACT
Mental stress is used broadly to refer to the negative emotional, behavioural, and biological response to a perceived threat.Yoga is useful for cultivating mindfulness and reducing stress. A study was undertaken among a random sample of 40 adult yoga practitioners in Kozhikode, Kerala, India before and after practicing yogato analyse the influence of yoga on the mental stress of the practitionersusing an interview schedule containingthe Perceived Stress Scale (Cohen et al, 1983), the respondent's age, sex and period of yoga practice. The stress score was computed as the total of the item scores in the scale. The data was analysed statistically.The results show that yoga contributes to up to about two times less mental stress for the respondents, when compared tobefore yoga practice. Women experience lower stress than men through yoga practice. A higher period of yoga practice is found to reduce the level of stress.Age showed no statistically significant influence on the stress score of the practitioners. It has been observed from the study that, in addition to less of negative emotions, yoga practitioners experience more of positive emotions also, which contributeto less stress for them observed in this study. Linear regression analysis showed that the maximum contribution (83 %) of stress item scores to the variation in the total stress score is observed for five items in the scale, namely, upset since something happened unexpectedly, felt unable to control the important things in life, felt nervous and stressed, felt confident about ability to handle personal problems,and felt things are going his/her way. For the first three negative items mentioned here, only 10 to 15 % of respondents have experienced them fairly often and often after the practice of yoga. For the positive item mentioned above, namely, felt confident about the ability to handle personal problems,70 % report experiencing it fairly often and oftenafter yoga practice,while 65 % practitioners report experiencing fairly often and oftenthe positive item, namely, felt that things are going his/her way. Yoga centres shouldalso carry out studies on yoga / meditationwith the assistance of experts and disseminate the scientific information generated from them to make people understand the utility of practicing such techniques. A coordinated effort by various yoga centres in this line is also worth considering. The Government of India should come forward to fund such studies for competent yoga centres through AYUSH, DST etc.

INTRODUCTION
Psychological or mental stress is used broadly to refer to the negative emotional, behavioural, and biological response to a perceived threat**.** Mindfulness is reported to reduce stress and its consequences. Baer et al (2006) defines mindfulness as bringing one's complete attention to the experiences occurring in the present moment in a non-judgmental or accepting way. Research studies have consistently shown a positive relationship between trait mindfulness and psychological health (https://www.examinedexistence.com/the-five-mental-and-psychological-benefits-of-yoga -retrieved 29 July 2019. Mindfulness can lead to less intense stress responses (Baer et al, 2006). Yoga is a technique for cultivating mindfulness for the practitioners. Yoga improves our psychological wellbeing, prevents the onset of mental health conditions and reduces the effects of traumatic experiences.

In a national survey, over 85% of people who did yoga reported that it helped them relieve stress. Exercise is a very useful way to relieve stress, but yoga is different from spinning class or weight-lifting in that, it powerfully combines both physical fitness with an underlying philosophy of self-compassion and awareness. One of the main concepts in yoga is being non-judgmental toward both yourself and others, which is a powerful tool for stress relief, since much of our stress comes from us being hard on ourselves or frustrated with others (https://www.psychologytoday.com/us/blog/urban-survival/201512/yoga-stress-retrieved 29 July 2019).

A study was undertaken by the authors of this paper during 2019 to analyse the influence of yoga on the mental stress of the practitioners.

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METHODOLOGY

The study was carried out using an interview schedule among a random sample of 40 adult yoga practitioners of a yoga centre in Kozhikode District of Kerala State, India. The interview schedule contained the Perceived Stress Scale (Cohen et al, 1983), the respondent's age, sex and period of yoga practice. The Perceived Stress Scale consisted of 6 negative and 4 positive items which quantify stress. There were five-point responses for each item, which were scored using the Likert equal interval method. The stress score of the respondents was computed as the total of the item scores in the scale. The interview schedule elicited the responses of the yoga practitioners on the ten items both before and after practicing yoga. The data was analysed statistically.

RESULTS AND DISCUSSION

Table 1 shows the mean total stress score of the respondents before and after starting yoga practice. While 90 % of people have a score in the range of 21 to 39 only before the practice of yoga, the score profoundly increases to 62 to 92 for 90 % of yoga practitioners after the practice of yoga (Table 1). A higher stress score indicates less stress. Hence, after the practice of yoga, people are 1.35 to 1.95 times less stressed than before starting yoga

Table1. Mean total stress score of the respondents before and after starting yoga practice

Before starting yoga practice		After starting yoga practice	
Mean total stress score*	**Respondents (%)**	**Mean total stress score***	**Respondents (%)**
13-20	10	44-58	10
21-39	90	62-92	90
Total	100	Total	100

*Mean total stress score of the yoga practitioners, expressed as percentage of the maximum possible total stress score of 50 in this study

It may be seen from Table 2 that the mean total stress score of the 40 yoga practitioners after practice of yoga is 36.03, when compared to the score of 28.05 before yoga practice, with statistically significant difference existing between the two scores. This indicates that after the practice of yoga, the respondents have a total stress score, which is about 28 % higher than the total score before practicing yoga. This again implies less of stress after yoga practice

Table 2. Statistical test of significance of the difference in total stress score before and after practice of yoga

Details	Before starting yoga practice	After starting yoga practice
Mean total stress score	28.05	36.03
Variance	29.51	29.13
Statistical *t* value	-6.59	
	Statistically significant at $p<0.001$	

Table 3 shows the data of the mean total stress scores of men and women. Women show a higher stress score of 37.14 than men (34.88), indicating that they experience less stress than men after the practice of yoga. However, the difference in the scores of men and women is near marginal statistical significance only, since the *t* value is significant at $p<0.20$ only (Table 3).

Table 3. Statistical test of significance of the difference in total stress score of men and women

Details	Men	Women
Mean total stress score	34.88	37.14
Variance	35.86	23.93
Statistical *t* value	-1.29	
	Statistically significant at $p<0.20$	

When comparing people with up to 2 years of yoga practice and 2-3 years of yoga practice, it can be made out from Table 4 that the latter category of yoga practitioners has a comparatively higher stress score than the former category, which is also different statistically. The influence of a higher period of yoga practice in reducing the level of stress is evident from this.

Table 4. Statistical test of significance of the difference in total stress score of people with different periods of yoga practice

Details	up to 2 years of yoga practice	2-3 years of yoga practice
Mean total stress score	36.61	40.71

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Variance	16.42	24.57
Statistical *t* value	-1.99	
	Statistically significant at $p<0.05$	

Age of the respondents did not show statistically significant influence on the stress scores of the yoga practitioners.

Table 5 shows the responses of the yoga practitioners on experiencing the ten items in the stress scale before and after the practice of yoga. It can be seen that for all the negative items in Table 5 (item no. 1, 2, 3, 6, 9 and 10), the percentage of yoga practitioners experiencing them fairly often as well as very often has drastically reduced after yoga practice, when compared to before yoga. This indicates that they are less stressed on account of these negative emotions after the practice of yoga.

Similarly, it can be seen from Table 5 that the proportion of yoga practitioners experiencing fairly often as well as very often the positive item no. 4, 5, 7 and 8 in the scale (namely, felt confident about ability to handle personal problems, felt that things were going your way, able to control irritations in life, felt that you were on top of things), which indicate less of stress, has increased very much after they started yoga practice, compared to before yoga. This indicates that the respondents experience more of positive emotions after the practice of yoga, which will contribute to less of stress for them.

The data also reveals that for the negative stress items 1 to 3 (namely, upset since something happened unexpectedly, felt unable to control the important things in life, felt nervous and stressed), only 10 to 17.5 % of respondents have reported experiencing them fairly often and often after the practice of yoga, when compared to 37.5 % to 55 % respondents reporting them in this manner before yoga practice (Table 5). Similarly, the proportion of respondents reporting experiencing fairly often and very often the negative stress items 9 and 10 (namely, angry because of things that were outside your control, felt that difficulties were piling up so high that they could not be overcome) has reduced considerably from 40 to 42.5 % before yoga practice to 12.5 to 15 % after they started yoga practice (Table 5). This implies that the degree of experience of negative stress items has also reduced considerably for the respondents after practice of yoga.

These findings on positive and negative stress items logically explain the higher stress score obtained by the yoga practitioners after yoga practice (shown in Table 2), indicating less of mental stress for the respondents due to yoga practice.

Table 5. Experience of positive and negative items in the stress scale by the yoga practitioners

Item in the scale	Yoga practioners reporting (%)			
	Before yoga practice		After yoga practice	
	Never and Almost never	Fairly often and Very often	Never and Almost never	Fairly often and Very often
1.Upset since something happened unexpectedly	10	55	40	10
2. Felt that you were unable to control the important things in your life	30	37.5	30	17.5
3. Felt nervous and stressed	20	50	47.5	10
4. Felt confident about your ability to handle your personal problems	22.5	37.5	17.5	77.5
5. Felt that things were going your way	30	30	22.5	67.5
6. Could not cope with all the things that you had to do	22.5	42.5	55	10
7. Able to control irritations in your life	32.5	30	7.5	75
8. Felt that you were on top of things	45	27.5	35	55
9. Been angry because of things that were outside your control	17.5	42.5	52.5	15
10. Felt that difficulties were piling up so high that you could not overcome them	37.5	40	55	12.5

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A small correlation (r) value of 0.32 only is there between the score of the negative item 1 (upset since something happened unexpectedly) and the total stress score (Table 6). However, Table 6 shows a comparatively higher r value of 0.60 for negative item 6 (could not cope with all the things to be done) and 0.62 for negative item 9 (been angry because of things that were outside your control) with the total stress score. For the negative stress item 1, only 40 % of the yoga practitioners give the responses –Never and almost never. However, a comparatively higher proportion of the yoga practitioners (55 %) have replied as - Never and almost never for the negative item 6, while 52.5 % have replied in this manner for the negative item 9. This may be the reason for the higher correlation (r) values of 0.60 and 0.62 with the total stress score for these two negative items, when compared to the r value of 0.32 for the negative item 1 (Table 6).

Table 6. Correlation between the score of items in the stress scale and the total stress score after the practice of yoga

Correlation (r) value between item scores and total stress score after the practice of yoga										
	Item in the stress scale									
	1	2	3	4	5	6	7	8	9	10
r	0.32	0.46	0.51	0.27	0.58	0.60	0.23	0.53	0.62	0.54

1- Upset since something happened unexpectedly

2- Felt that you were unable to control the important things in your life

3- Felt nervous and stressed

4- Felt confident about your ability to handle your personal problems

5- Felt that things were going your way

6- Could not cope with all the things that you had to do

7- Able to control irritations in your life

8- Felt that you were on top of things

9- Been angry because of things that were outside your control

10- Felt that difficulties were piling up so high that you could not overcome them

Linear regression analysis of the scores of the ten items in the stress scale with the total stress score after practice of yoga showed that the maximum contribution (83 % - R^2 of 0.83significant at $p< 0.001$) of item scores to the variation in the total stress scores of the yoga practitioners is observed for items 1 to 5 (Table 7).

The data reveals that after the practice of yoga, for the negative stress items 1 to 3 namely, upset since something happened unexpectedly, felt unable to control the important things in your life, felt nervous and stressed, only 10 to 17.5 % of respondents (people) have replied as experiencing them fairly often and often. Again, for the positive item 4, namely, felt confident about the ability to handle personal problems, 70 % people report experiencing it fairly often and often and 65 % experience fairly often and often the positive item 5, namely, felt that things are going my way. Such a favourable trend with respect to experiencing both the negative items and the positive items mentioned above (which indicate a good mental state / less mental stress for the yoga practitioners) may be the reason why the scores of these five items in the stress scale are explaining a very high proportion (83%) of the variation in the total stress score of the respondents after practice of yoga (as shown in Table 7).

Table 7. Regression analysis of the scores of selected items with the total stress score after practice of yoga

Item no.	Mean score	Coefficient	Coefficient statistically significant at	R^2
1	3.45	1.70	*p< 0.001*	0.83 Statistically significant at *p< 0.001*
2	3.25	1.94	*p< 0.001*	
3	3.70	1.63	*p< 0.001*	
4	3.90	- 0.18	Not significant	
5	3.63	2.90	*p< 0.001*	

1- Upset since something happened unexpectedly

2- Felt that you were unable to control the important things in your life

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3- Felt nervous and stressed

4- Felt confident about your ability to handle your personal problems

5- Felt that things were going your way

CONCLUSIONS

Yoga practice is found to contribute to up to about two times less mental stress, compared to before yoga practice. Women experience lower stress than men after the practice of yoga. The influence of a higher period of yoga practice in reducing the level of stress is evident from the study. Age showed no statistically significant influence on the stress score of the yoga practitioners. The percentage of yoga practitioners experiencing fairly often as well as very often all the negative items in the stress scale used in this study has drastically reduced after yoga practice, when compared to before practice. This indicates that they are less stressed due to these negative emotions after the practice of yoga. On the other hand, the percentage of yoga practitioners experiencing fairly often as well as very often the positive items in the stress scale increased very much after than before yoga practice. This implies that, in addition to experiencing less of negative emotions, they are experiencing more of positive emotions also through the practice of yoga, which can be considered to be contributing to less stress for them, as observed in this study. Linear regression analysis showed that the maximum contribution (83 %) of stress item scores to the variation in the total stress score of the yoga practitioners is observed for the following five items in the scale, namely, upset since something happened unexpectedly, felt unable to control the important things in life, felt nervous and stressed, felt confident about ability to handle personal problems, and felt things are going his/her way. For the first three negative items mentioned here, only 10 to 15 % of respondents have experienced them fairly often and often after the practice of yoga. After yoga practice, for the positive item, namely, felt confident about the ability to handle personal problems,70 % yoga practitioners report experiencing it fairly often and often, while 65 % report experiencing fairly often and often the positive item, namely, felt that things are going his/her way. This indicates the effect of yoga in reducing negative thoughts and promoting positive ones, thus contributing to stress relief, as observed in the study.

It will be useful if different yoga centres also carry out studies with the assistance of experts on the influence of yoga / meditation on various health parameters so that the scientifically backed information generated out of these studies can be disseminated to the public in order to make them understand the utility of practicing such techniques. A coordinated effort by various yoga centres in this line is also worth considering. The Government of India should also come forward to fund such studies for competent yoga centres through AYUSH, DST etc.

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AN EMPIRICAL STUDY OF IMPACT OF MOTIVATION ON EMPLOYEE PERFORMANCE IN MANUFACTURING SECTOR IN PUNE

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ABSTRACT
Motivation is an important factor in manufacturing industries which encourages the employees to give their best performance and helps in reaching enterprise goal. A strong positive motivation enables the increased output of employees but a negative motivation will reduce their performance. So we can say that Motivation is the essential element in personal management which enhances the productivity and helps to develop the employee morale to work better. The study sought to examine the impact of employee motivation on employee performance in manufacturing sector in Pune. It is also known as "Hook" or "Anticipatory Set." It is also important that, Employee should have good and well relation with the management. The management also maintains a healthy and professional relationship with their employee for their establishment. Any Industry cannot achieve and run and fulfill its objectives or goal without motivating their employees. So it is very necessary to motivate the employee by different manner and achieve the goal. Motivation is a human psychological characteristic which contributes to the degree of commitment. It refers to the resolution of achieving a goal, mission and vision which is directed behavior. Employees are always directly influenced by motivation to satisfy their appreciate, physiological safety, social safety and self- actualization levels. The factors influenced by motivations are recognition, responsibility; opportunity for advancement etc. removal of all these factors will result in dissatisfaction of employees. Some of the good hygiene factors include organizational policy, interpersonal relations, working condition, working environment, salary job security etc. Motivation shows a crucial significant part in manufacturing sector and this research results and identified that motivation plays an important role toward the performance of employees and also Job satisfaction in the Manufacturing Companies in Pune. The main objective of this research work was to find out the impact of motivation on employee performance in manufacturing sector in Pune. A sample of individuals was selected and was interviewed with a structured questionnaire to obtain primary data. The data were analyzed using descriptive statistical analysis methods. The data was collected through the questionnaire from Manufacturing Companies in Pune. The data was analyzed using ANOVA. Some of the analysis has been carried out with the help of Excel.

Keywords: Employee Motivation, Employee Performance, Job Satisfaction

INTRODUCTION
Motivation is the most significant element for all manufacturing companies which play a significant role for the accomplishment of any organization. In modern age, any business organization are facing ever growing challenges regarding different factors like commitment, engagement, belief, recruitment and retention of their employee to sustain the organization. Employee motivation is the procedure in which the organization should motivate their employee in the form of bonus, rewards, and some other incentives etc. only for the reason to attain the organizational objectives. Therefore the companies motivate their employee either directly or indirectly to their employee. Motivation is about providing the staff the right mixture of guidance, direction, rewards for inspired and keen to work in the way that the employee want to perform. So a large portion behind these difficulties can easily be solved by imparting proper motivation which is a big task of HR department and management. By the help of motivation the attitude of the employee is shown in the work place. The individual is a complex creature. So every employee in an organization is inspired by some different kind of tactic. The different factors of motivation like salary, monetary incentives and compensation package. It is impacted upon the performance and helps to achieve the organizational goal. The factors considered under Relationships and security is relationship with superiors, peers and job security; Moreover, Authority to make decisions, Growth opportunity and prospects were also considered. The result clearly represented the tangible sorting of how motivation is responsible for upliftment of employee performance.

Motivation can affect the employee performance and job satisfaction. It will encourage the employees of the organization will seriously do their work and responsibility. Attractive salary is a valuable instrument to play a significant role to improving the performance and the productivity in manufacturing company. The success and failure of the organization depends upon its performance of the employee where motivation is the key factor of

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the employee to perform well in a target oriented environment. Here the role of HR is very important to handle the employee in different ways by giving different satisfaction and motivation in various ways. So the managers of organization should manage the resources efficiently and effectively to confirm the achievement. Satisfaction at the work place for an employee's act like motivation to work and this motivation leads employees to their job satisfaction. It signifies the difficult services and needs which provide the drive for employees to complete a specific jobs.

Motivation differs from each individual as it is different goal in respective life. Every body has different needs which are important to exist itself. Motivation plays a vital role to fulfill the objectives. The organization must try to find out exactly the need of the employee and try to fulfill such needs and also try to fulfill the need to keep them motivated. An organization must keep them contended and happy and motivated do give their best and give up more. An organization must use both properly in boosting motivation of its employees to fulfill the objectives. An organization can replace goods, services, machines but human resource cannot be replaced by any means which is very important in manufacturing company. For an employee motivation should come from within, intrinsically; and hence it propels them to do better day after day.

Motivation improves the quality of work and productivity. in this context the management will either be offered inventive for more work, or may be reward, better report, recognition etc. Motivation may be divided in two categories i.e Positive and Negative Motivation. Positive motivation is based on reward. Basically in manufacturing company the employee gets the incentives and sometimes they are offered more pay, promotion & recognisation of work etc. Negative Motivation is based on force or fear. Fear causes the employees to act in a certain way to perform forcefully to do the job. In this case the employee may be punished with demotions or lay-offs. It basically acts as a push mechanism to collect the work. This type of motivation generally becomes a cause of industrial unrest.

OBJECTIVE

1. To Study the Impact of Motivation on employee Performance in Manufacturing Sector.
2. To analyze the influence and outcomes of motivation on Employee Performance
3. To Evaluate the motivational needs of Employee in Manufacturing Industries

LITERATURE REVIEW

Md. Nurun Nabi, Md. Monirul Islam, Tanvir Mahady Dip, Md. Abdullah Al Hossain (2017) stated that motivation indeed has a momentous effect on employee performance. They also stated that the employee should feel that they have a great future in their respective organization and by the help of impact of motivation they will work with more efficiency and compatibility. Such motivating will be established by exemplifying others working profile in the respective organization. An effective scheme of monetary and extrinsic rewards should be made for motivation. Besides of that the employer should be kept in mind that in further time employee may feel the requirement for more money is their incentive which help was previously used for motivation.

Azar and Shafighi (2013), stated that, motivation factor helps to motivate the employee to perform well. Employee performance is depends upon the effort of the employee which he gets from motivate by the organization. Means it states that employee performance is influenced by the motivation which has a major role to enhance the performance.

Surbhi, S. (2012) stated that, employee motivation is one of the best policies to improve effective work management between the employee and organization. It is very significant for the organization or management to treasure a method to their employees. The incentive always accomplishes the demand and requirements of the workers and in return the individuals repay it through hard work and honesty and fulfill the company objective. Motivation has a major role to play to satisfy the employee and achieve the goal.

Burton (2012) stated that, motivation begins with motive and it indicates something and it causes other things to act, and thus, it simply can be identified as the act of providing motive which causes someone to act. Motivation is accountable for someone to act and someone else self alone can make someone motivated which helps to perform well.

Guay et al. (2000) and Vansteenkiste et al. (2007) suggested that, motivation is the source of autonomy and freedom and are more self driven as compared to less motivated employee which lead to availing developmental opportunities more correctly. Also stated that the employee commitment with their job is more effective and it is impacted their day to day activity.

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DEFINITION

Dubin:-"Motivation is the complex of forces starting and keeping a person at work in an organization."

Vance:- "Motivation implies any emotion or desire which so conditions one's will that the individual is properly led into action. It represents an unsatisfied need which creates a state of tension or disequilibrium, causing the individual to make in a goal- directed pattern towards restoring a state of equilibrium by satisfying the need."

Memoria:- "A willingness to expend energy to achieve a goal or reward. It is a force that activates dormant energies and sets in motion the action of the people. It is the function that kindles a burning passion for action among the human beings of an organisation."

RESEARCH METHODOLOGY

A descriptive research design was used for the purpose of study. It is stratified random sampling method was employed to the select the respodents, from different Manufacturing companies in Pune. The sample size of 140 was used for the study. They have given their valuable feedback through the questionnaire. A Structured questionnaire was prepared to collect the primary data.

The questionnaire was designed into two parts. Part-A is consists of demographic information of the respodents and Part-B consists about the impact of Motivation on employee performance in Manufacturing sector in Pune. It suggest that the different factors to motivate the employee to perform better. Statistical test was used to measure the relationship between selected variable. The data was analyzed using the T Test and ANOVAs through SPSS. Some of the analysis was done though the help of Excel.

HYPOTHESIS

H_0: There is no impact of demographic factors on impact of motivation on employee performance in manufacturing company.

H_1: There is an impact of demographic factors on impact of motivation on employee performance manufacturing company.

LIMITATION

The Primary data was collected for the purpose of study only. The questionnaire was collected from Manufacturing Companies from Pune City.

FINDING

Table 1 :- Perception of Respondents on Impact of Motivation on Employee Performance (Content wise Analysis)

Sr. No	Content	Yes	Percentage (%)	No	Percentage (%)
1	Do you think Motivation helps to improve the performance?	135	96.43	5	3.57
2	Do you think Motivation helps to improve the Job Profile?	130	92.86	10	7.14
3	Do you think motivation results to make you more active in your workplace?	130	92.86	10	7.14
4	Do you think Motivation is an Essential part for employee & Organization?	128	91.43	12	8.57
5	Do you think Motivation helps to make a good organization culture?	126	90.00	14	10.00
6	Does your company arrange some program to motivate the employee?	124	88.57	16	11.43
7	Do you think Motivation helps to improve the interpersonal Relation?	112	80.00	28	20.00

Source:- Survey Date

Above 90 % of the respodents stated that, motivation helps to improve the performance, Improve the job profile, active in workplace and it is an essential part for employee and organization as well.

90 % of the employee suggested that, motivation helps to make a good culture which create good environment to work which helps the organisaiton grow in various ways.

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89 % of the respodents suggested that, the organization creates some program to motivate their employee and develop their skill and knowledge.

80% of the respodents suggested that, motivation helps to improve the interpersonal Relation.

Table 2:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector. (Descriptive for Age group)

Descriptive								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
Rating					Lower Bound	Upper Bound		
Below 20 Years	3	6.0000	.00000	.00000	6.0000	6.0000	6.00	6.00
21-30 Years	30	7.7667	1.04000	.18988	7.3783	8.1550	6.00	9.00
31-40 Years	52	7.4615	1.05647	.14651	7.1674	7.7557	5.00	10.00
41-50 Years	40	7.4250	1.17424	.18566	7.0495	7.8005	5.00	9.00
51 Years & Above	15	7.4000	1.29835	.33523	6.6810	8.1190	5.00	9.00
Total	140	7.4786	1.12184	.09481	7.2911	7.6660	5.00	10.00

Source:- Survey Data

Table 3:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector. (ANOVA Test for Age Group)

ANOVA					
Rating	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	9.271	4	2.318	1.889	.116
Within Groups	165.665	135	1.227		
Total	174.936	139			

Source:- Survey Data

P value is obtained as 0.116 (>0.05), thus it concluded that there is **no** significant difference between respondents of different age groups with regard to satisfaction with respect of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 4:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector. (Descriptive for Age group)

Descriptives								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
Rating					Lower Bound	Upper Bound		
Below 20 Years	3	9.0000	.00000	.00000	9.0000	9.0000	9.00	9.00
21-30 Years	30	8.6667	.47946	.08754	8.4876	8.8457	8.00	9.00
31-40 Years	52	8.5769	.82477	.11437	8.3473	8.8065	7.00	10.00
41-50 Years	40	8.5000	.50637	.08006	8.3381	8.6619	8.00	9.00
51 Years & Above	15	8.3333	.48795	.12599	8.0631	8.6036	8.00	9.00
Total	140	8.5571	.63780	.05390	8.4506	8.6637	7.00	10.00

Source:- Survey Data

Table 5:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector. (ANOVA Test for Age Group)

ANOVA					
Rating	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	1.851	4	.463	1.142	.340

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Within Groups	54.692	135	.405		
Total	56.543	139			

Source:- Survey Data

P value is obtained as 0.340 (>0.05), thus it concluded that there is **no** significant difference between respondents of different age groups with regard to satisfaction with respect Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 6:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector. (Descriptive for Gender)

Group Statistics					
	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Rating	Male	128	7.5234	1.10806	.09794
	Female	12	7.0000	1.20605	.34816

Source:- Survey Data

Table 7:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector. (T Test for Gender)

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Rating	Equal variances assumed	.211	.647	1.553	138	.123	.52344	.33698	-.14287	1.18975
	Equal variances not assumed			1.447	12.803	.172	.52344	.36167	-.25912	1.30600

Source:- Survey Data

P value is obtained as 0.123 (>0.05), thus it concluded that there is **no** significant difference between respondents of Male and Female with regard to Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 8:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector. (Descriptive for Gender)

Group Statistics					
	Gender	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Rating	Male	128	8.5781	.62253	.05502
	Female	12	8.3333	.77850	.22473

Source:- Survey Data

Table 9:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector. (T Test for Gender)

Independent Samples Test								
	Levene's Test for Equality of Variances		t-test for Equality of Means					
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference

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									Lower	Upper
Rating	Equal variances assumed	1.681	.197	1.274	138	.205	.24479	.19212	-.13509	.62468
	Equal variances not assumed			1.058	12.355	.310	.24479	.23137	-.25772	.74731

Source:- Survey Data

P value is obtained as 0.205 (> 0.05), thus it concluded that there is **no** significant difference between respondents of different male and female groups with regard to Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 10:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector. (Descriptive for Qualification group)

Descriptive								
Rating								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Under Graduate	26	7.2308	1.21021	.23734	6.7420	7.7196	5.00	9.00
Graduate	99	7.6162	1.04693	.10522	7.4074	7.8250	5.00	10.00
Post Graduate	15	7.0000	1.30931	.33806	6.2749	7.7251	5.00	8.00
Above Post Graduate	0	0	0	0	0	0	0	0
Total	140	7.4786	1.12184	.09481	7.2911	7.6660	5.00	10.00

Source:- Survey Data

Table 11:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector. (ANOVA Test for Qualification Group)

ANOVA					
Rating					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	6.906	2	3.453	2.815	.063
Within Groups	168.030	137	1.226		
Total	174.936	139			

Source:- Survey Data

P value is obtained as 0.063 (> 0.05), thus it concluded that there is **no** significant difference between respondents of different qualification group with regard to Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 12:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector. (Descriptive for Qualification group)

Descriptive								
Rating								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Under Graduate	26	8.4615	.50839	.09970	8.2562	8.6669	8.00	9.00

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Graduate	99	8.5556	.65811	.06614	8.4243	8.6868	7.00	10.00
Post Graduate	15	8.7333	.70373	.18170	8.3436	9.1230	7.00	9.00
Above Post Graduate	0	0	0	0	0	0	0	0
Total	140	8.5571	.63780	.05390	8.4506	8.6637	7.00	10.00

Source:- Survey Data

Table 13:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector. (ANOVA Test for Qualification Group)

ANOVA					
Rating					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	.704	2	.352	.863	.424
Within Groups	55.839	137	.408		
Total	56.543	139			

Source:- Survey Data

P value is obtained as 0.424 (>0.05), thus it concluded that there is **no** significant difference between respondents of different qualification group with regard to Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 14:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector.(Descriptive for Technical Qualification)

Group Statistics					
	Technical Qualification	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Rating	Yes	58	7.8103	.94511	.12410
	No	82	7.2439	1.18176	.13050

Source:- Survey Data

Table 15:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector. (T Test for Technical Qualification)

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Rating	Equal variances assumed	1.402	.238	3.028	138	.003	.56644	.18706	.19657	.93631
	Equal variances not assumed			3.145	135.859	.002	.56644	.18009	.21030	.92258

Source:- Survey Data

P value is obtained as 0.003 (>0.05), thus it concluded that there is **a** significant difference between respondents of having Technical Qualification with regard to Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 16:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector. (Descriptive for Technical Qualification)

Group Statistics					
	Technical Qualification	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
Rating	Yes	58	8.6552	.54778	.07193
	No	82	8.4878	.68932	.07612

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Source:- Survey Data

Table 17:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector (T Test for Technical Qualification)

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Rating	Equal variances assumed	5.709	.018	1.537	138	.127	.16737	.10889	-.04795	.38269
	Equal variances not assumed			1.598	136.070	.112	.16737	.10473	-.03974	.37447

Source:- Survey Data

P value is obtained as 0.127 (<0.05), thus it concluded that there is **a** significant difference between respondents of having Technical Qualification with regard to Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector

Table 18:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector (Descriptive for Service in Current Company)

Descriptive								
Rating	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Below 3 Years	66	7.5758	.86042	.10591	7.3642	7.7873	6.00	9.00
4-6 Years	50	7.8800	1.20611	.17057	7.5372	8.2228	5.00	10.00
7-10 Years	6	6.5000	.54772	.22361	5.9252	7.0748	6.00	7.00
10 Years & Above	18	6.3333	.97014	.22866	5.8509	6.8158	5.00	7.00
Total	140	7.4786	1.12184	.09481	7.2911	7.6660	5.00	10.00

Source:- Survey Data

Table 19:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector (ANOVA Test for Service in Current Company)

ANOVA					
Rating					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	38.035	3	12.678	12.595	.000
Within Groups	136.901	136	1.007		
Total	174.936	139			

Source:- Survey Data

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P value is obtained as 0.000 (<0.05), thus it concluded that there is **a** significant difference between respondents of different Experience group with regard to Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 20:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector (Descriptive for Service in Current Company)

Descriptive								
Rating								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Below 3 Years	66	8.4848	.61375	.07555	8.3340	8.6357	7.00	10.00
4-6 Years	50	8.4800	.73512	.10396	8.2711	8.6889	7.00	10.00
7-10 Years	6	9.0000	.00000	.00000	9.0000	9.0000	9.00	9.00
10 Years & Above	18	8.8889	.32338	.07622	8.7281	9.0497	8.00	9.00
Total	140	8.5571	.63780	.05390	8.4506	8.6637	7.00	10.00

Source:- Survey Data

Table 21:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector(ANOVA Test for Service in Current Company)

ANOVA					
Rating					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	3.800	3	1.267	3.266	.023
Within Groups	52.743	136	.388		
Total	56.543	139			

Source:- Survey Data

P value is obtained as 0.023 (<0.05), thus it concluded that there is **a** significant difference between respondents of different experience group with regard to Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector

Table 22:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector (Descriptive for Experience Group)

Descriptive								
Rating								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Below 5 Years	28	7.7143	.93718	.17711	7.3509	8.0777	6.00	9.00
6-10 Years	42	7.8095	1.08736	.16778	7.4707	8.1484	6.00	10.00
11-15 Years	35	6.8857	1.02244	.17282	6.5345	7.2369	5.00	8.00
16-20 Years	14	6.8571	.86444	.23103	6.3580	7.3563	5.00	8.00
20 Years above	21	7.9048	1.22085	.26641	7.3490	8.4605	5.00	9.00
Total	140	7.4786	1.12184	.09481	7.2911	7.6660	5.00	10.00

Source:- Survey Data

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Table 23:- Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector(ANOVA Test for Experience Group)

ANOVA					
Rating					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	27.679	4	6.920	6.344	.000
Within Groups	147.257	135	1.091		
Total	174.936	139			

Source:- Survey Data

P value is obtained as 0.000 (> 0.05), thus it concluded that there is **no** significant difference between respondents of different experience group with regard to Satisfaction of Respondents on Current Company with respect of Impact of Motivation on Employee Performance in Manufacturing Sector.

Table 24:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector(Descriptive for Experience Group)

Descriptive								
Rating								
	N	**Mean**	**Std. Deviation**	**Std. Error**	**95% Confidence Interval for Mean**		**Minimum**	**Maximum**
					Lower Bound	**Upper Bound**		
Below 5 Years	28	8.6429	.62148	.11745	8.4019	8.8838	8.00	10.00
6-10 Years	42	8.5238	.74041	.11425	8.2931	8.7545	7.00	10.00
11-15 Years	35	8.6571	.63906	.10802	8.4376	8.8767	7.00	9.00
16-20 Years	14	8.7143	.46881	.12529	8.4436	8.9850	8.00	9.00
20 Years above	21	8.2381	.43644	.09524	8.0394	8.4368	8.00	9.00
Total	140	8.5571	.63780	.05390	8.4506	8.6637	7.00	10.00

Source:- Survey Data

Table 25:- Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector (ANOVA Test for Experience Group)

ANOVA					
Rating					
	Sum of Squares	**df**	**Mean Square**	**F**	**Sig.**
Between Groups	3.086	4	.771	1.948	.106
Within Groups	53.457	135	.396		
Total	56.543	139			

Source:- Survey Data

P value is obtained as 0.106 (> 0.05), thus it concluded that there is **no** significant difference between respondents of different experience group with regard to Satisfaction of Respondents on Current Company with respect of Effectiveness of Impact of Motivation on Employee Performance in Manufacturing Sector

With regards to the results of T Test and ANOVA it is found that, satisfaction of the respondents with different demographic profile is a significantly different. Thus Null Hypothesis is rejected and it is concluded that, there is an impact of demographic factors on satisfaction and its effeteness on Motivation on employee performance in Manufacturing Sector.

a. The average level of the satisfaction of the Motivation in the current company with respect of the Motivation was **7.48** (out of 10) and its effectiveness average is **8.56** (out of 10). It indicates that Motivation is an essential part to motivate the employee and it impacts on the employee performance.

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b. It is observed that the factors of the demographic factor in satisfaction of motivation above average is in Technical qualification i.e **7.52**. and in for effectiveness of Motivation about below average is in all factors. Only Technical qualification mean is same i.e **8.56**. it is stated that all the employees having different demographic factor are impacted upon the motivation.

Table 26:- Demographic Profile of Respondents

Age Group	No of Respondents	Percentage (%)	Year of Experience	No of Respondents	Percentage (%)
Below 20 Years	3	2.14	Below 5 Years	28	20.00
21-30 Years	30	21.43	6-10 Years	42	30.00
31-40 Years	52	37.14	11-15 Years	35	25.00
41-50 Years	40	28.57	16-20 Years	14	10.00
51 Years & Above	15	10.71	20 Years above	21	15.00
Total	**140**	**100.00**	**Total**	**140**	**100.00**
Qualification	**No of Respondents**	**Percentage (%)**	**Years of Service in the current Company**	**No of Respondents**	**Percentage (%)**
Under Graduate	26	18.57	Below 3 Years	66	47.14
Graduate	99	70.71	4-6 Years	50	35.71
Post Graduate	15	10.71	7-10 Years	6	4.29
Above Post Graduate	0	0.00	10 Years & Above	18	12.86
Total	**140**	**100**	**Total**	**140**	**100**
Technical Qualification	**No of Respondents**	**Percentage (%)**	**Gender**	**No of Respondents**	**Percentage (%)**
Yes	58	41.43	Male	128	91.43
No	82	58.57	Female	12	8.57
Total	**140**	**100.00**	**Total**	**140**	**100.00**

Source:- Survey Data

FINDING & SUGGESTIONS

1. Above 95 % and above respodents stated that, Motivation helps to improve the performance. It indicates that motivates helps the employee to enhance their productivity and can able to do more and energetic in their work environment. Only 5 respodents not agreed regarding the same where 4 are Below 3 years of experience and 1 is in between 4-6 Years. Which number is very less. Thus it is proved that the motivation is required for the employee to perform well.
2. 91-93 % of the respodents suggested that, Improve the job profile, active in workplace and it is an essential part for employee and organization as well. It is proved that motivation helps the employee active and it is the essential part for the organization. Hence it is required for the organization and the organization should focus for the same.
3. 90 % of the employee suggested that, motivation helps to make a good culture which create good environment to work which helps the organisaiton grow in various ways.
4. 88.57 % of the respodents suggested that, the organization creates some program to motivate their employee and develop their skill and knowledge.
5. 80% of the respodents suggested that, motivation helps to improve the interpersonal Relation. Hence it is proved that motivation helps the employee in various way to perform well.
6. It is observed that, there is **no** significance difference between respodents of different age group, Gender, Educational Qualification, for Motivation and effectiveness on year of service in the respective company. Hence it is suggested that the organization should have created the environment to motivate the employee in various sources.
7. It is concluded that there is **a** significant difference between respondents of different technical qualification, Years of service in current company and motivation in the factors in years of total experience. Thus it is proved that, Motivation is needed the employee to perform well and it is good for the organization.

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CONCLUSION

In any organization motivation impact the employee performance basically those who have less skill and are motivated and more and more contribute for their performance. Employee job satisfaction depends upon the motivation and how the employee performs in the organization. It plays a vital role in the making of profit and also increases the productivity of workers in manufacturing industries. Motivation is an most important to the business of any organization and its employee itself. A motivated employee always performs better than others and they ready to give better service. It refers to the factors which move or activate the organism & helps the employee make predictions about behavior. Motivation is the main factor which leads the employee to do something different. It means to provide a need or desire which cases a person to act. It is also defined as the inputs to create and sustain intentions and goal seeking acts in the organization. This study proves the relationship between Motivation and its impact on Performance. Motivation impacts in professional life like personal goal, satisfaction, closer to the organization, team building and many more.

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Liu, W.B, Wongcha A, & Peng, K.C. (2012), "Adopting Super-Efficiency And Tobit Model On Analyzing the Efficiency of Teacher's Colleges In Thailand", International Journal on New Trends In Education and Their Implications, Vol.3.3, 108 – 114.

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Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2007). *Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies* (3rd ed.). New York: McGraw-Hill.

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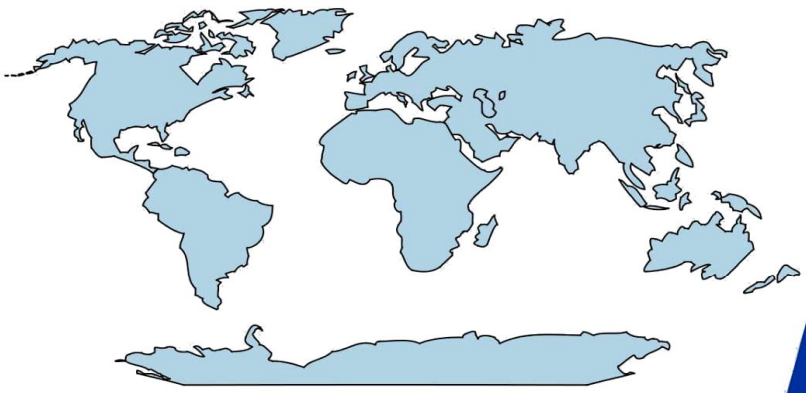

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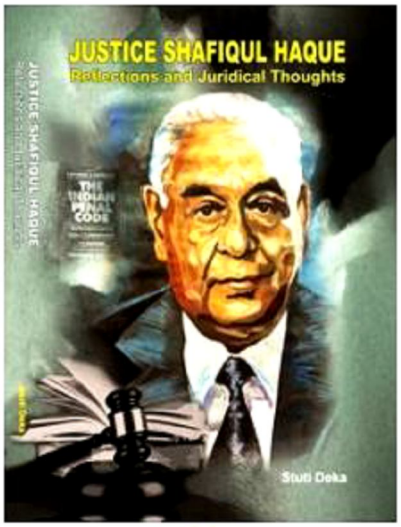

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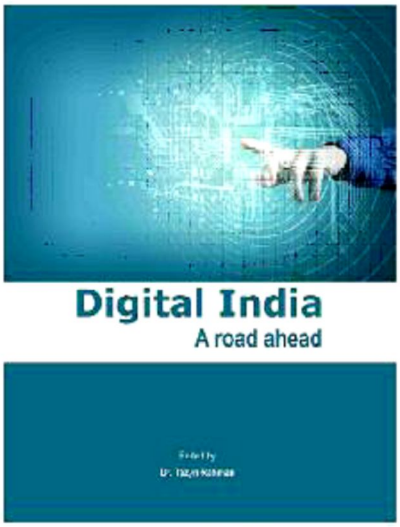

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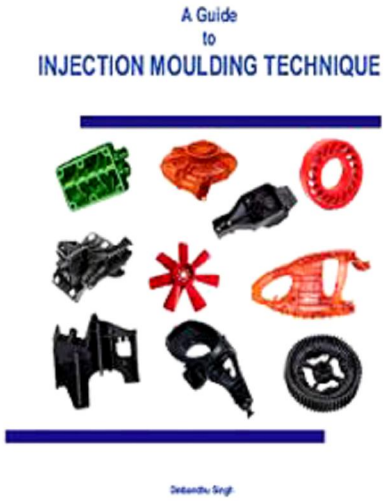

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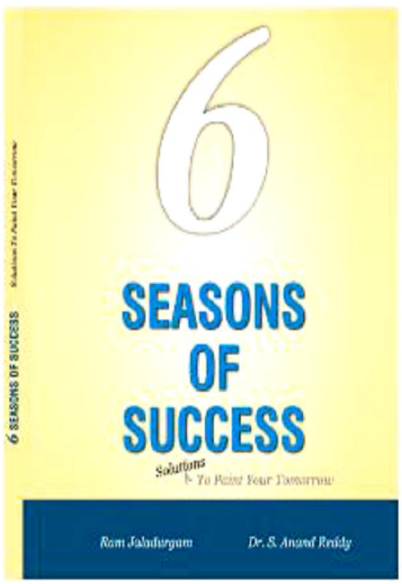

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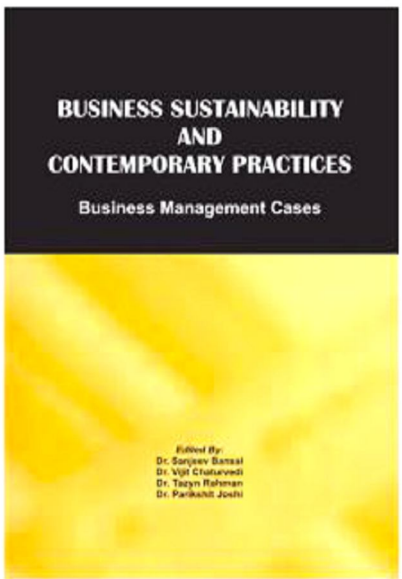

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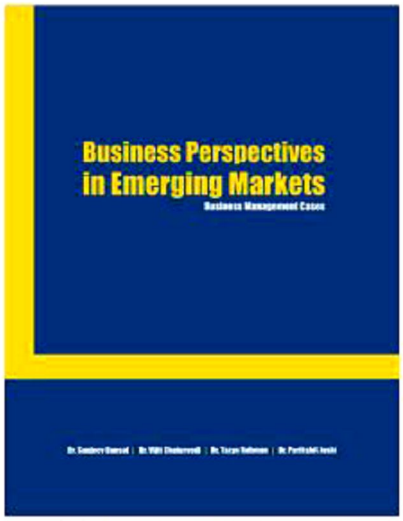

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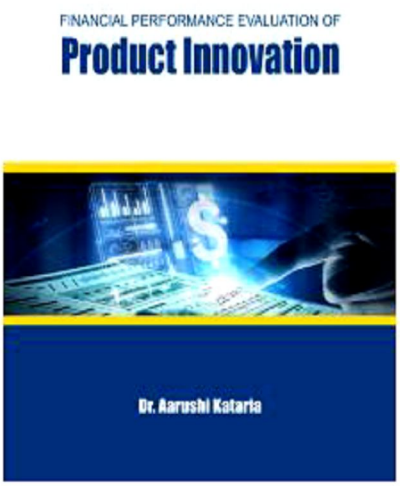

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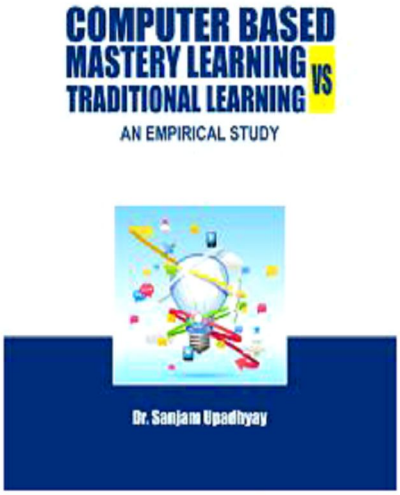

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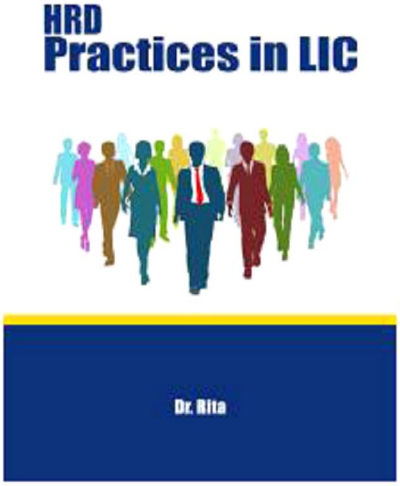

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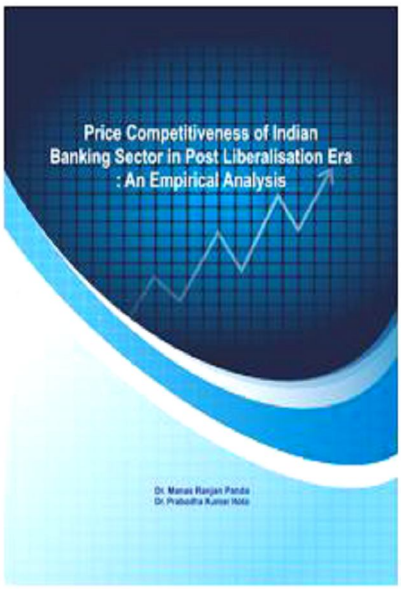

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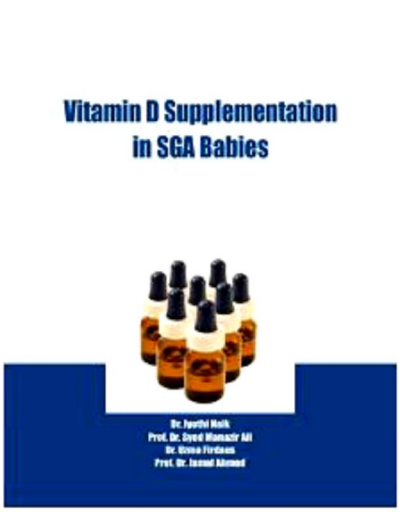

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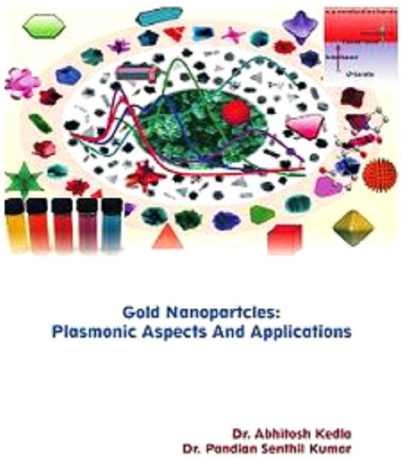

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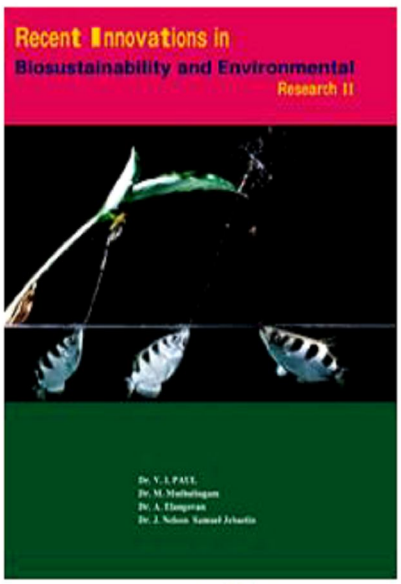

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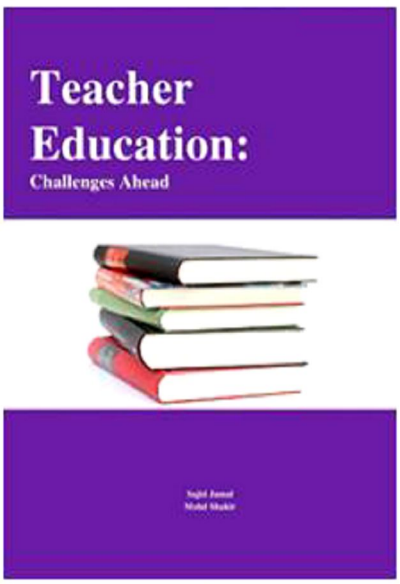

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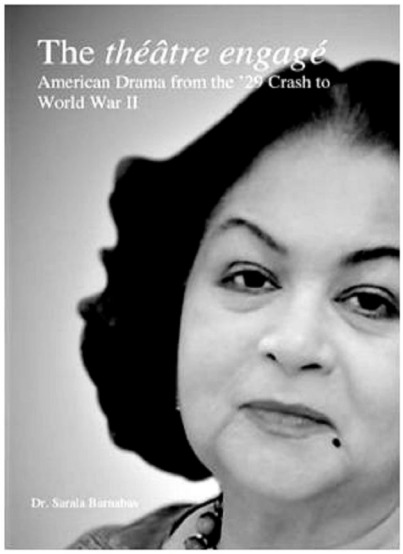

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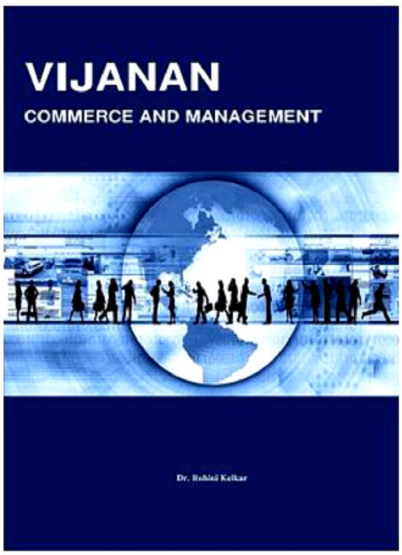

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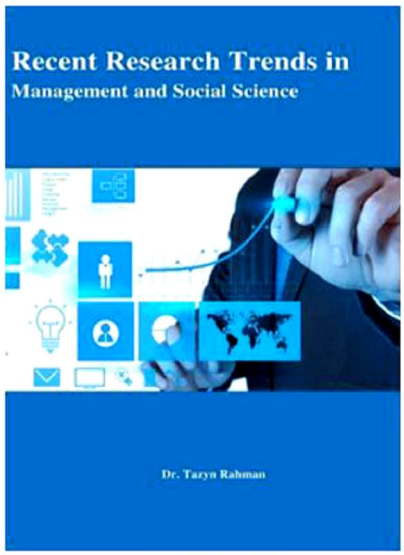

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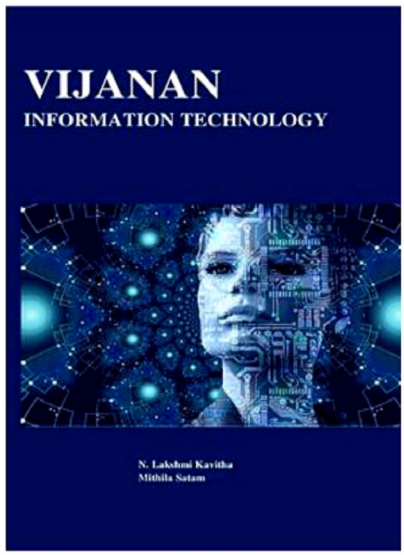

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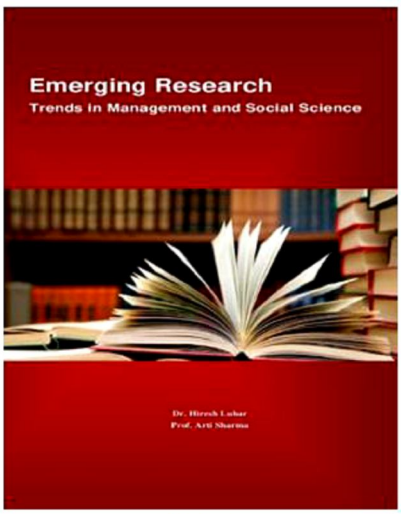

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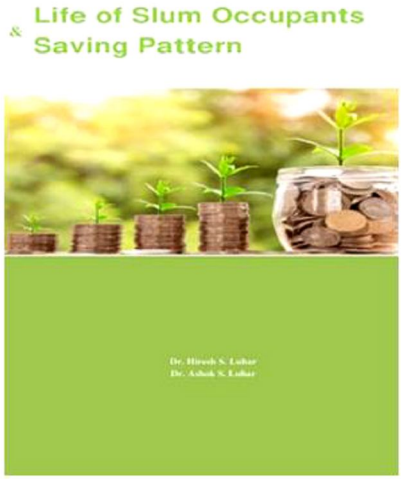

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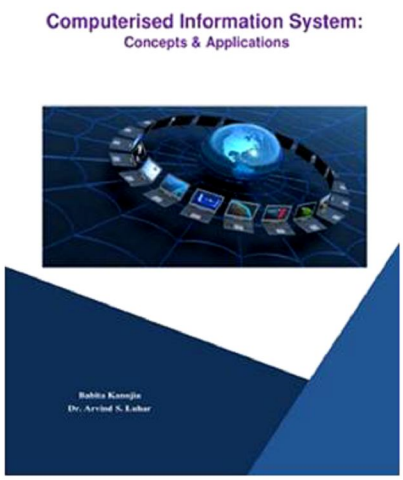

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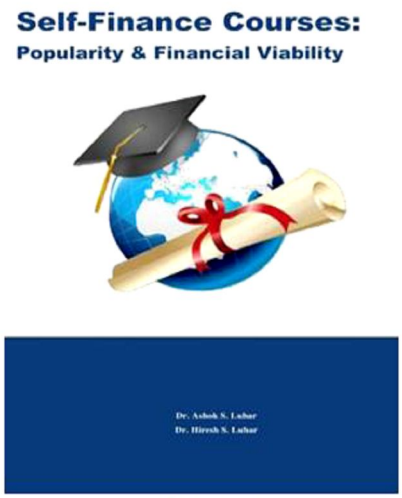

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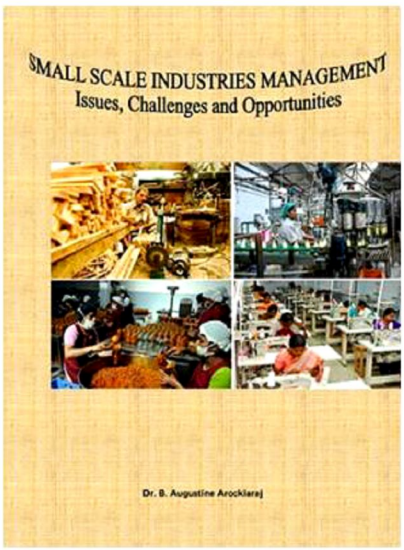

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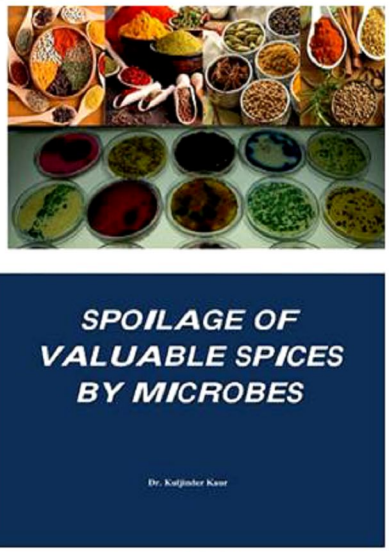

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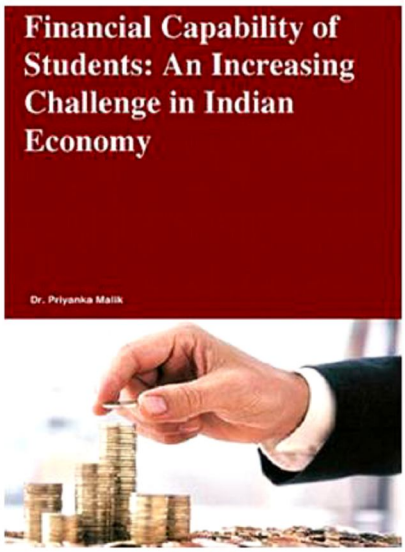

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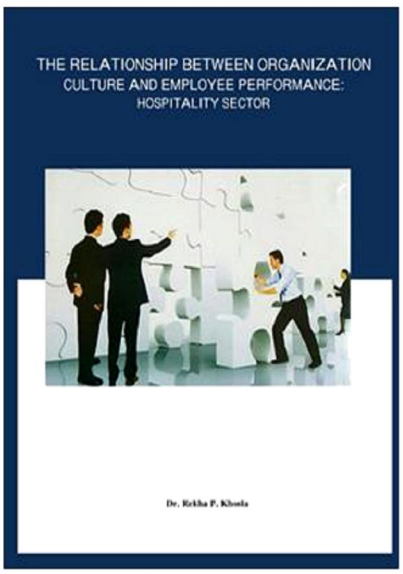

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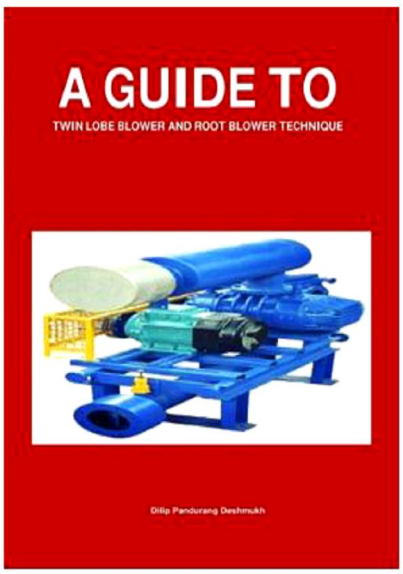

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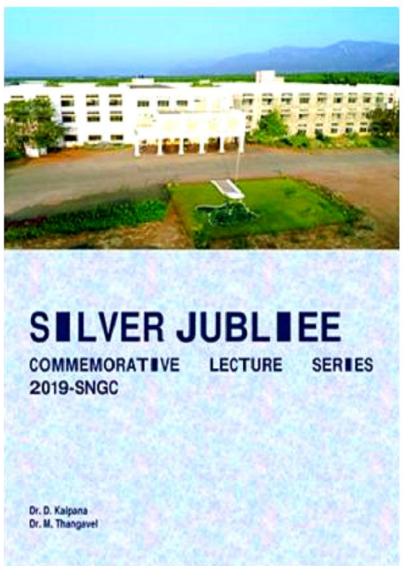

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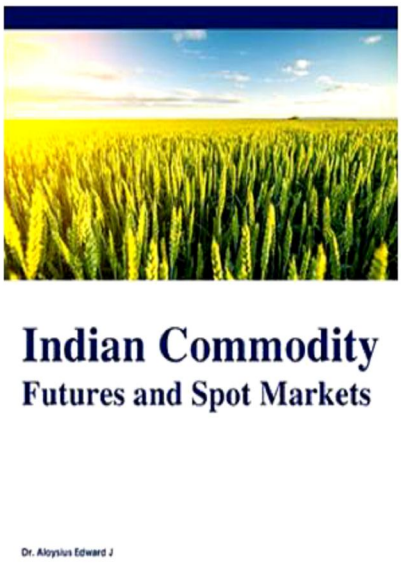

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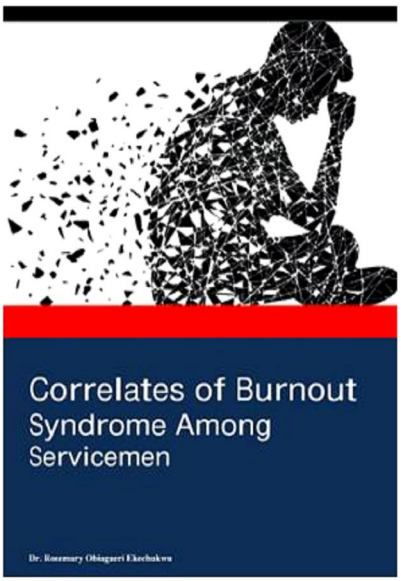

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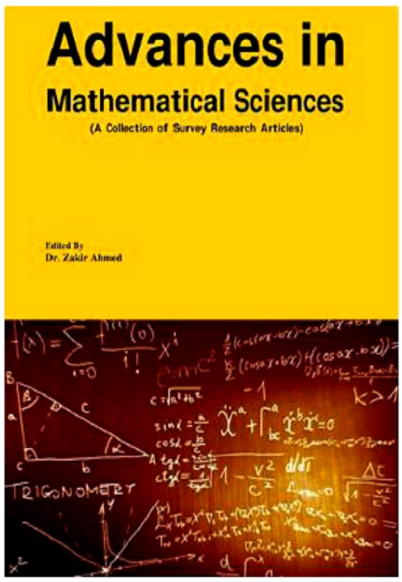

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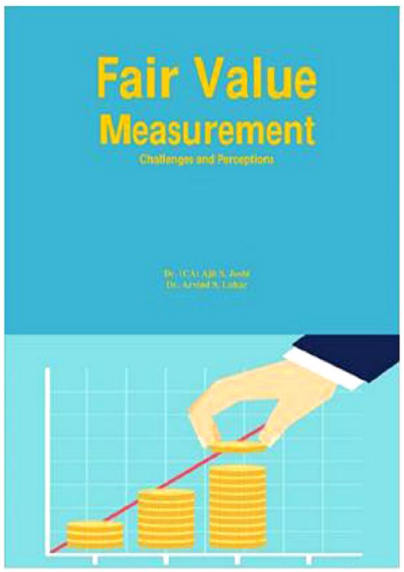

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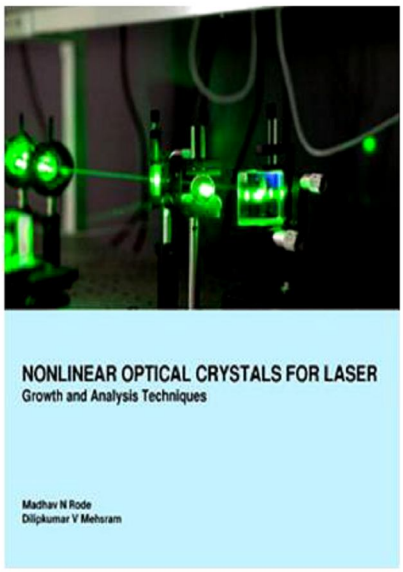

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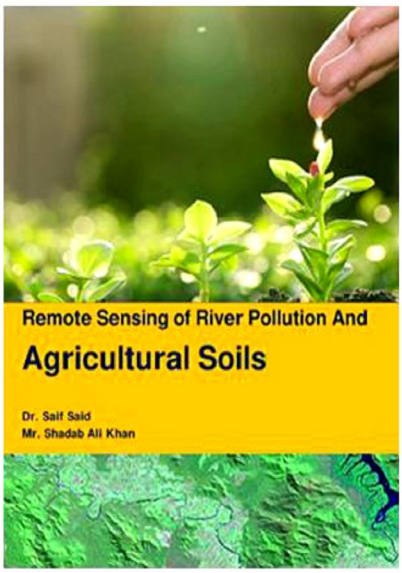

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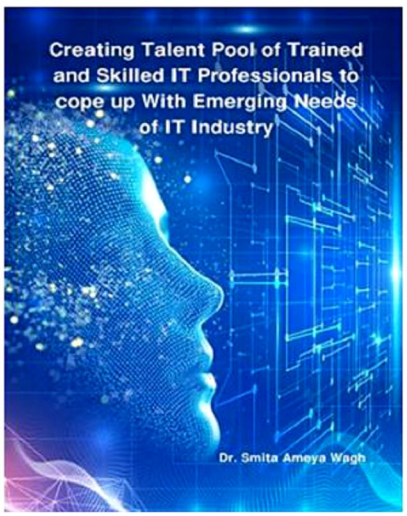

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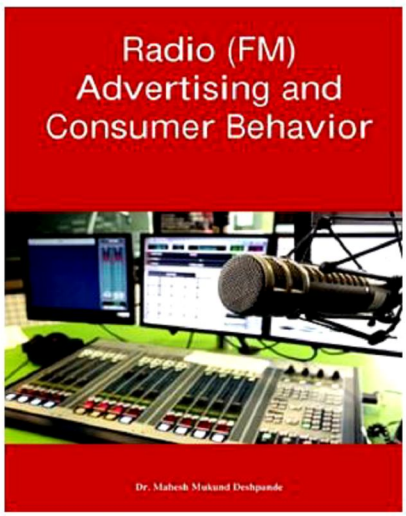

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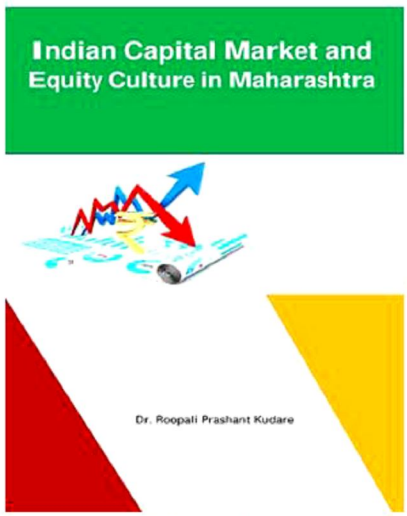

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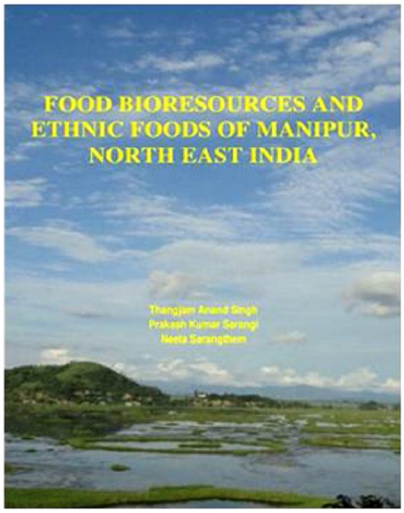

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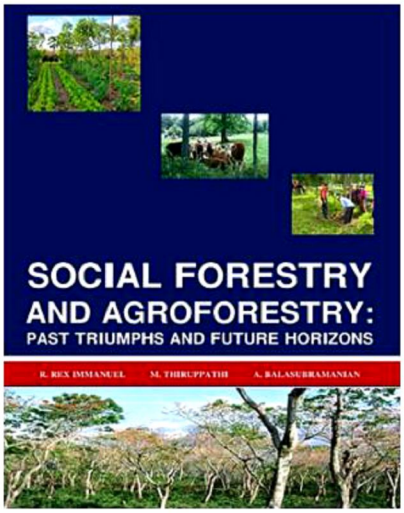

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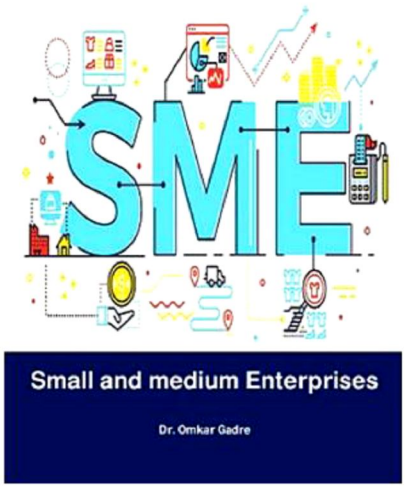

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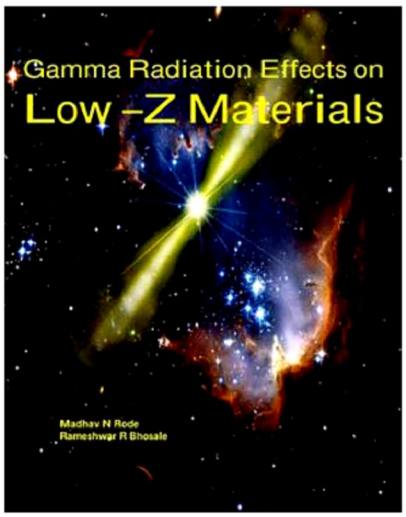

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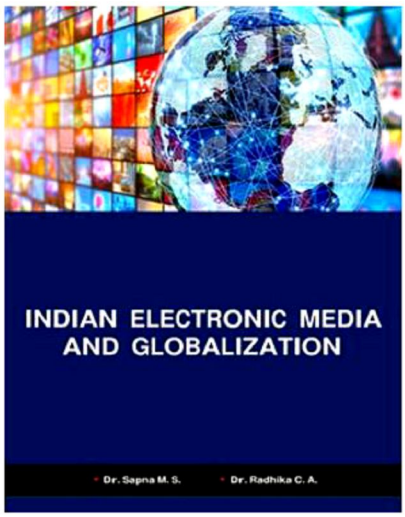

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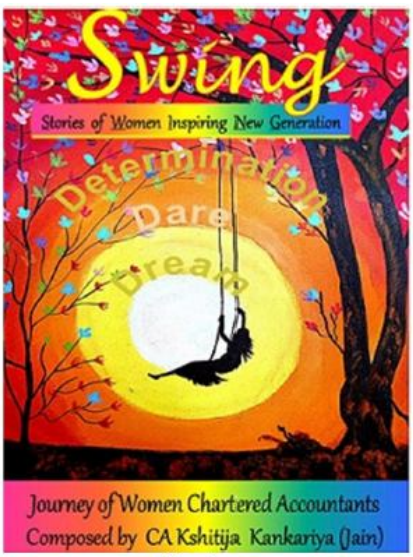

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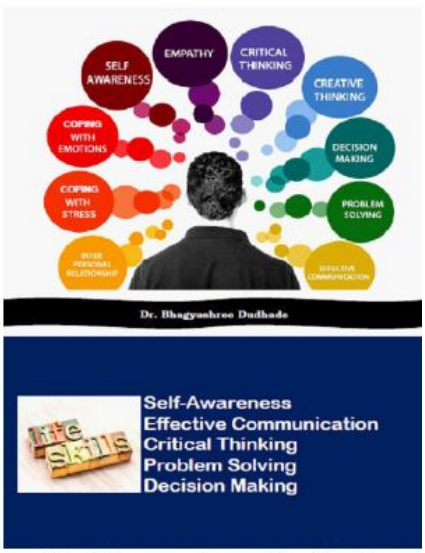

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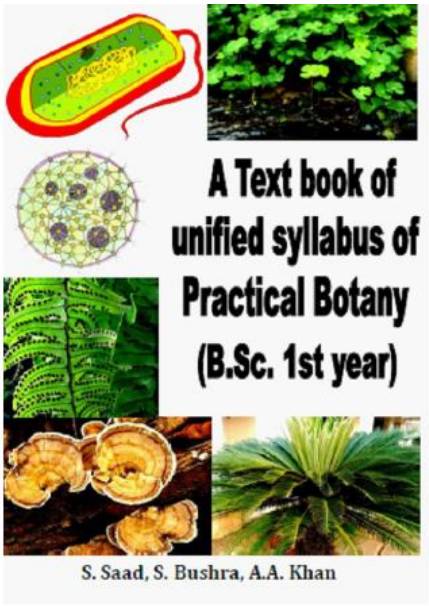

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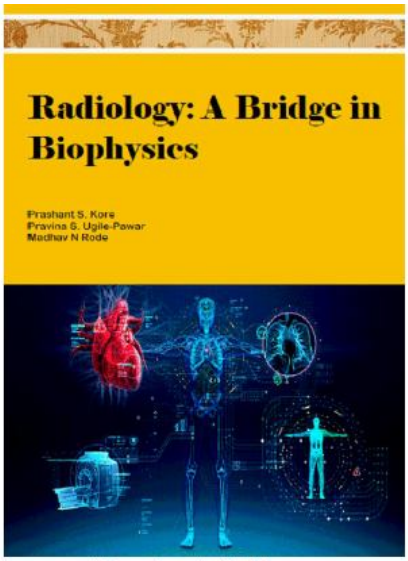

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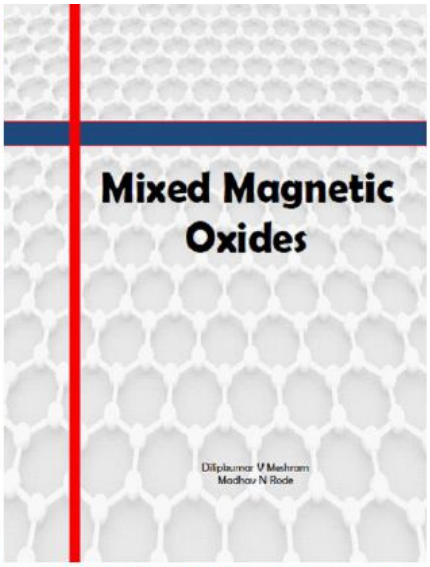

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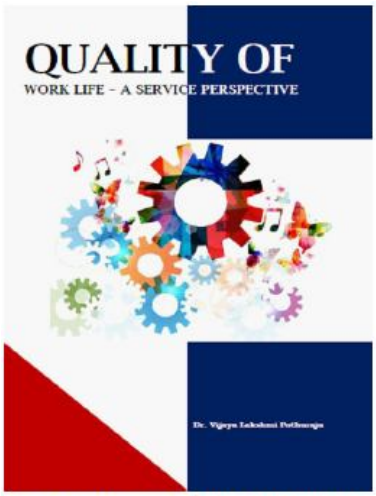

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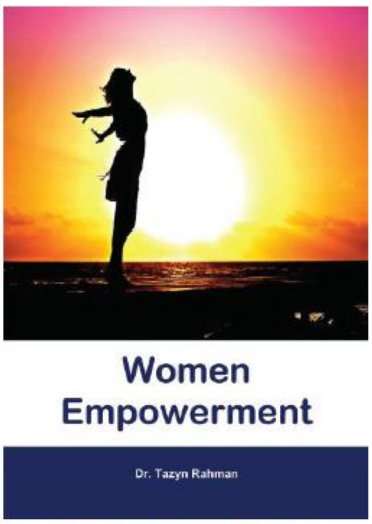

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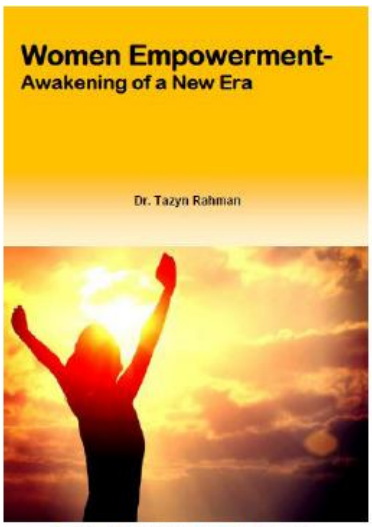

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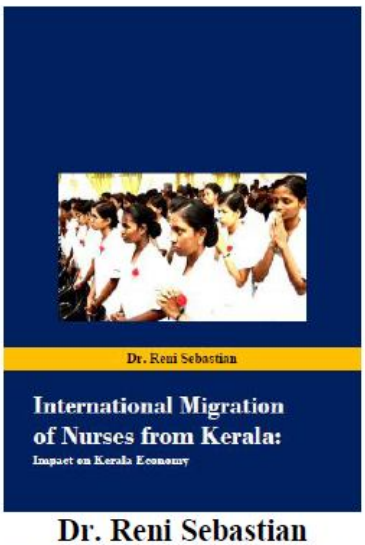

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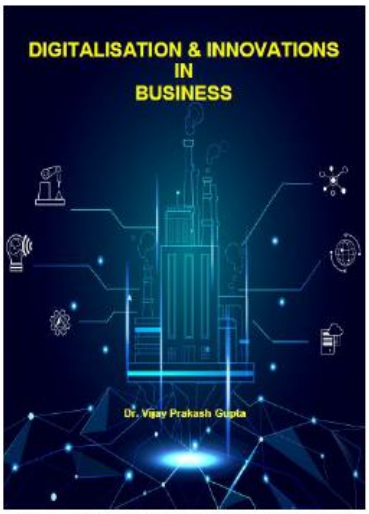

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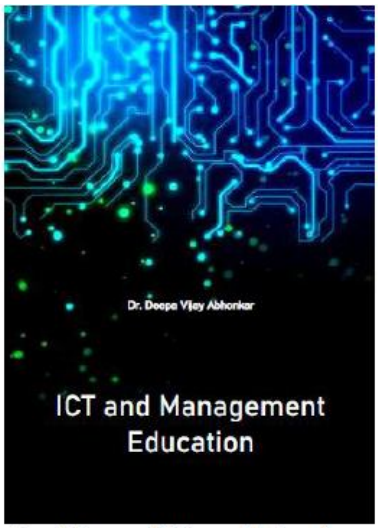

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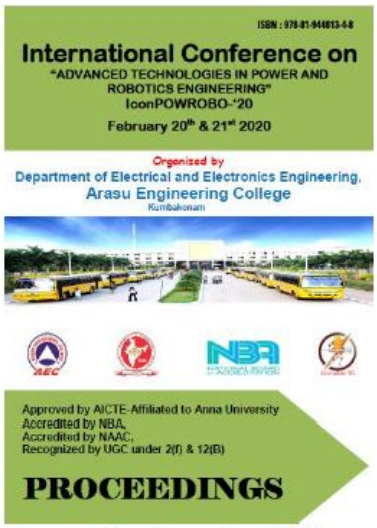

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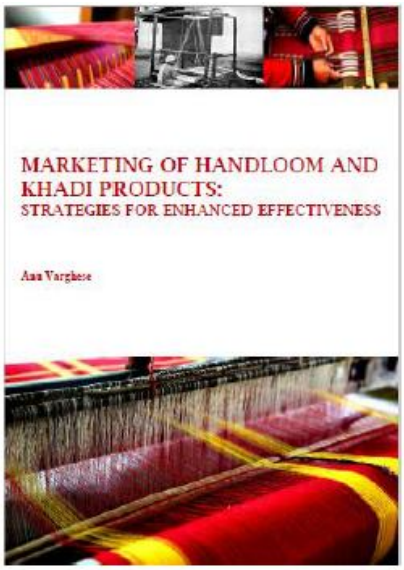

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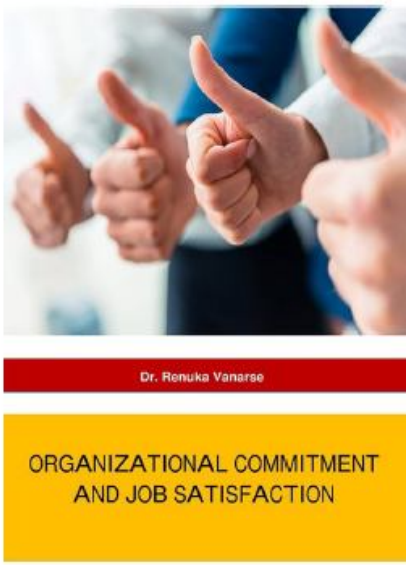

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