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BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
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- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

ONLINE RESOURCES

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WEBSITES

- Garg, Bhavet (2011): Towards a New Gas Policy, Political Weekly, Viewed on January 01, 2012 http://epw.in/user/viewabstract.jsp

A STUDY ON CAPITAL STRUCTURE AND PROFITABILITY OF SELECTED CEMENT INDUSTRIES IN INDIA

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ABSTRACT

The cement industry has played a significant role in the growth of the Indian economy during the post-independence period. The present study evaluated the capital structure and profitability of selected cement companies in India. This research article was based on secondary data collected from annual report of industries and profile of the industries. Financial analysis is a powerful tool which helps in determining the problems in the operation and financial position of the industries. Hence this study analyzed only the financial problem of the company. Study liquidity and profitability analysis of the cement companies based on their balance sheet and profit and loss a/c. The company should enrich its performance for meeting challenges and exploiting change in future and help the management to take financial decisions. This study also finds out the extents where the industries can expand the position of its asset and funds.

KEYWORDS

capital structure, profitability, cement industries in India.

INTRODUCTION

The prosperity of a country depends directly upon the development of agriculture and industry. For the last two centuries or more, industrial an agriculture revolution in England first and in other countries subsequently were accompanied by a revolution in transport and communications, the extensive use of coal and later oil, as a source of energy, tremendous expansions in banking, insurance and other financial institutions to finance production and trade, explosion of knowledge of science and technology, etc. The link between infrastructure and development is not a once for all affair. It is a continuous process and process in development has to be preceded, accompanied and followed by process in infrastructure, to fulfill the declared objectives of a self-accelerating process of economic development.

GROWTH AND PROSPECTS OF CEMENT INDUSTRY IN INDIA

The origin of cement industry can be traced back to 1914 when the first unit was set-up at Porbandar with a capacity of 1000 tons per year. India's cement industry comprises 131 large cement plant and 365 mini-cement plants, with an installed capacity of 165 million tons per annum. Large cement plant account for over 94 percent of the total installed capacity. At percent, the Indian cement industry produces 13 different varieties of cement employing three different process types, namely, ordinary Portland cement, Portland slag cement. The introduction of advanced technology has helped the industry immensely to conserve energy and fuel and to save material substantially. Presently, 93 per cent of the total capacity in the industry is based on modern and environment-friendly dry process technology.

The government of India has identified cement as a core industry, and therefore, its development has been an integral part of the national economics plants. The Indian cement industry is the fifth largest in the world with production of over 150 million tonnes per year next to china, Russia, Japan, and U.S.A. Though it is quite large in terms of total capacity, the industry is fragmented in its structure. The cement industry in India is poised to scale new heights thanks to liberalization policies of the government of India and with the adoption of-the art technology and a massive investment of Rs. 100 billion. In view of its vital importance for the national economy, the industry, for a very long time, was covered under the Essential Commodities Act, and was subject to various control at the states of mining or quarrying, acquisition of land, production, distributions, price, etc. these control are necessary because of the supply-side constraints like availability of funds, infrastructure bottlenecks in term of coal-power wagons and cost-effective technology. As a result, the "shortage" syndrome marked the industry till about the early eighties.

The cement companies have seen a net profit growth rate of 85 per cent. With this huge success, the cement industry in India has contributed almost 8 per cent to India's economic development. Nowadays, the cement industry is growing fast and to know, how the financial performance of the cement industry playing a vital role in India. For this, to analysis the production and sales, to measure the short term and the long term financial feasibility, to identify the factors that influence the profitability status of the selected cement companies in Tamil Nadu. The Indian cement industry has evolved significantly in the last two decades going through all the phases of typical growth process. With sound economic growth and infrastructure development, the demand for cement is on an upward trend, further addition to capacity is coming up to cater to the increasing demand for cement producer in the world after china with a total capacity of 151.2 million tonnes (MT), has got huge cement company. With the government of India giving boost to various infrastructure project, housing facilities and road net-work, the cement industry in India is currently growing at an enviable pace Cement is global commodity, manufactured at thousands of local plants. The cement industry in India dominated by around 20 companies, which account for almost 70 per cent of the total cement production in India. Because of its weight, cement supply via land transportation is expensive, and generally limited to an area within 300 km of any one plant site. The industry is consolidating globally, but large, international firms account for only 30 per cent of the market. China is the fastest growing market today. Because it is both global and local, the cement industry faces a unique set of issues, which attract attention from communities near the plant, at a national and an international level.

STATEMENT OF THE PROBLEM

The cement industry is one of the largest industries in world economy and Indian cement industry is second largest in the world. It is a vital role of its economy, providing employment to more than million people directly or indirectly, infrastructure and housing sector. Since it's has to emulate 1982, the Indian cement industry has attracted high investment both from Indian as well as foreign investors. Some of the recent government initiatives. Such as development of 98 smart cities expected to provide a major boost to the cement companies. India's Cement Industries with the share of around 7% of total world cement production being china on the top with share around 35% of total world cement production. Numerous studies have been carried out in this field but most of them belong to other parts of the world, and a few studies have been taken place in India. Most of the studies have used variable like long term fund, short-term fund to find relationship. In this context, the researcher has attempted to find the association among capital structure and profitability of selected cement companies in India.

OBJECTIVES

1. To analyze the capital structure of sample cements company in India.
2. To examine the profitability of sample cement companies in India.
3. To measure the growth of financial variables sample cement companies in India.

SCOPE OF THE STUDY

- The study would help to know the capital structure of selected cement companies in India.
- The study would light throw on the profitability of sample cement companies in India.
- The study would help the policy maker to take appropriate decision in solving the crisis in cement companies.

LIMITATION OF THE STUDY

- The study was secondary data in nature. Its fact was based on the published in information.
- The period of study covered only five years. Therefore, its result would not be applicable for other years.

REVIEW OF LITERATURE

Hiral shah and Heinz Telser (2006) revealed that the Indian cement plants, which are technical, advanced, manned by skilled personal, and supported by an increasing consumption, are operating at close to the maximum rated capacities. Furthermore, the annual growth figures of seven to eight percent are expected to prevail in the coming years. In view of the enormous growth potential for domestic consumption, India will be a strategic target for international cement companies.

L.G.Burange and shruti Yamini (2008) in their study computed the Annual compound Growth Rates (ACGS) as per semi log method for 37 years from 1970-71 to 2006-07. According to the study the performance of primary indicators in the Indian cement industry has been very impressive during the period 1970-71 to 2006-07

Rajamohan s. and vijayaragavan T. (2008) have conducted a study on production performance of Madras cement Limited. In order to analysis the comparative production performance of Madras Cements Limited and all cement units in India; Mann-Whitney U-test was applied. It was concluded that the production per-formance of selected unit was equal to production performance of all other cement units in India.

Ajan Ghost, sabyasachi Majumbar, rohit Inamdar, and Anil Gupta (2010) evaluated CAGR between the periods 2004-09. The finding reveal that CAGR for the period 2004-09 was 9.35 and the capacity addition of cement CAGR was 5.6%. Even during the economy slowdown, the cement demand remained healthy at 8.4% (2008-09). This was due to the government programmers like NREG, low cost housing schemes, Indira Aawas Yojana etc.

S.chanrakumarmangalam and P. Govindasamy (2010) investigate the relationship between the leverage (financial leverage, operating leverage and combined leverage) and the earning per share, and this study also explains the relationship between the dept equity ratio and earnings per share and how effectively the firm be able dept financing the result suggest that the leverage and profitability and grown are related and the leverage is having impact on the profitability of the firm.

Chakraborty (2010) employed two performance measures, including ratio of profit before interest, tax and depreciation to total assets and ratio of cash flow to total assets and two leverage measure, including radio of liability and equity, and reported a negative relation between these ones.

Mistry Dharmendra S (2011) found that Liquidity is closely related with the profitability of the Indian cement industry as compared to the Total Assets, Inventory turnover Ratio, Debt-Equity Ratio and operating Expenses Radio.

Haijhassani (2012) presented a comparison of financial performance in cement sector in Rran. This study presents comparison of financial performance for the period 2006-2009 by using financial ratio and measures of cement companies working in Iran. Financial ratios are divided into three main categories and measures including two indicators. This work concludes that the performance of cement companies on the basis of profitability ratio is different than on the basis of liquidity ratio, leverage financial.

Time trick Report (2012) the world wide concrete and cement market was worth USD 449.4 bn in 2012 posting a CAGR of just over 4% during 2008-2012 however, growth was subdued by an 11.8% decline in 2009 on the black of a slowdown in construction activity. Over the next five year, the global concrete and cement market is expected to record nearly 8.5% CAGR, supported by the Growing construction industry worldwide the moderation of the economy slump in Europe, and infrastructure development project in emerging countries.

METHODOLOGY

The chapter deals with the methodology adopted for the study which contains the following steps:

NATURE OF THE RESEARCH DESIGN

As the study aimed at study the capital structure and profitability of the cement industry by using various accenting relationship. The methodology adopted was analytical in nature.

NATURE OF DATA

The study depended on secondary data only.

PERIOD OF STUDY

The data were collected for five years i.e. from 2009-10 to 2013-14

SOURCE OF DATA COLLECTION

The relevant data were collected from the official directory of the Bombay stock exchange for 10 companies, for which the data were available 5 years from 2009-10 to 2013-14 centre for monitoring Indian economy (CMIA), CRISIL sector Review, Executive summary of CRISIL Bombay, ICRA industry watch series(various issues) ICRA, Bombay, Annual survey of industries (ASI) New Delhi Information has been source from books, Newspaper, Trade Journals, White papers, Industry portal Government agencies, Trade Associates, Industry news and development, though access to paid databases and websites.

The following are the companies studied.

- J.P. cement
- Rambo cement
- Shree cement
- Dalmia cement
- Ambuja cement
- Acc cement
- Ultra tech cement
- Indian cement
- J.K cement

TOOLS USED FOR DATA ANALYSIS

The statistical technique like ratio analysis mean. SD., correlation were used for the study.

Formula for debt equity Ratio

D/E $Ratio = \frac{\text{Debt}}{\text{Equity}}$

Formula for debt to Total fund

$$= \frac{\text{Debt}}{\text{Total fund}}$$

Gross profit Radio

$$GRP = \frac{\text{Gross Profit}}{\text{Net sales}} \times 100$$

Employee Return on capital

$$ROCE = \frac{\text{Net Profit after tax}}{\text{Total capital employee}}$$

RESULT AND DISCUSSION

The first selection of result and discussion discuss about the individual company's performance during the period of study.

TABLE 1: DEBT EQUITY RATIO (FIGURES IN TIMES)

Company name	2013-14	2012-14	2011-12	2010-11	2009-10	Mean	SD
JP Cement	1.28	1.21	1.15	1.33	2.87	1.57	0.73
Ramco cement	0.9	0.84	1.03	1.61	1.65	1.21	0.39
Prism cement	1.56	1.18	0.9	0.97	0.69	1.06	0.33
Jk cement	1.24	0.67	0.84	1.15	0.94	0.97	0.23
India cement	0.69	0.67	0.56	0.69	0.6	0.64	0.06
Shree cement	0.23	0.25	0.35	0.93	1.09	0.57	0.41
Birla cement	0.43	0.48	0.5	0.46	0.36	0.45	0.05
Ultra tech cement	0.52	0.43	0.57	0.33	0.3	0.43	0.12
Acc cement	-	-	0.01	0.07	0.08	0.05	0.04
Ambuja cement	-	-	-	0.01	0.01	0.01	0

Debt equity radio is given in the table it revealed that among all the cement companies JP cement, Ramco cement and prism cement are highly leveraged companies having highest debt to equity radio i.e. 1.57, 1.21 and 1.06 respectively. On the other side companies like ACC cement, Ambuja cement and Ultratech cement are low leveraged with lowest debt to equity ratio with the mean score of 0.05, 0.01 and 0.43 respectively.

CHART 1: DEBT EQUITY RATIO (FIGURES IN TIMES)

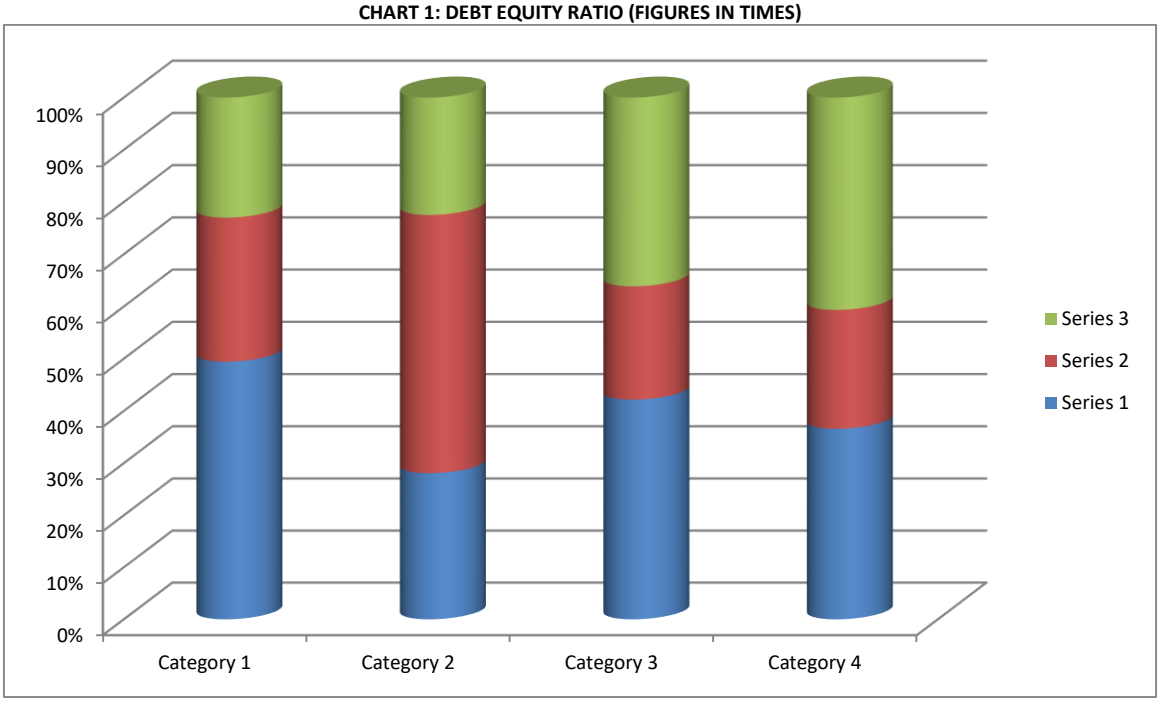


TABLE 2: DEBT TO TOTAL FUND (FIGURES IN TIMES)

Company name	2O13-14	2012-13	2011-12	2010-11	2009-10	Mean	SD
JP cement	1.28	1.21	1.15	1.33	2.87	1.57	0.73
Ramco cement	0.9	0.84	1.03	1.61	1.65	1.21	0.39
Prism cement	1.56	1.18	0.9	0.97	0.69	1.06	0.33
Shree cement	0.23	0.25	0.35	0.93	1.09	0.57	0.41
Birla cement	0.43	0.48	0.5	0.46	0.36	0.45	0.05
Ambuja cement	0.28	0.29	0.3	0.25	0.35	0.29	0.04
Acc cement	-	-	0.01	0.07	0.08	0.05	0.04
Ultra Tech cement	0	0	0	0.01	0.01	0.00	0.01
India cement	0.76	0.75	0.63	0.52	0.6	0.65	0.10
JK cement	1.42	0.78	0.84	0.98	0.94	0.99	0.25

Source: Author compilation from Annual Report of the companies

Table 2 reveals that debt to total fund radio is also higher in case of JP cement, JK cement and prism cement with the mean score of 1.57, 1.27, and 1.06 times respectively. On other hand Ultra Tech cement have minimum debt to total fund radio with score 0.004 which shows that company have very less burden of dept. In addition to this company is having very low level of standard deviation with the mean score of 0.05 as compared to other companies in study. It is also clear from table that JP cement have relatively higher standard deviation as compared to other companies in study.

CHART 2: DEBT TO TOTAL FUND (FIGURES IN TIMES)

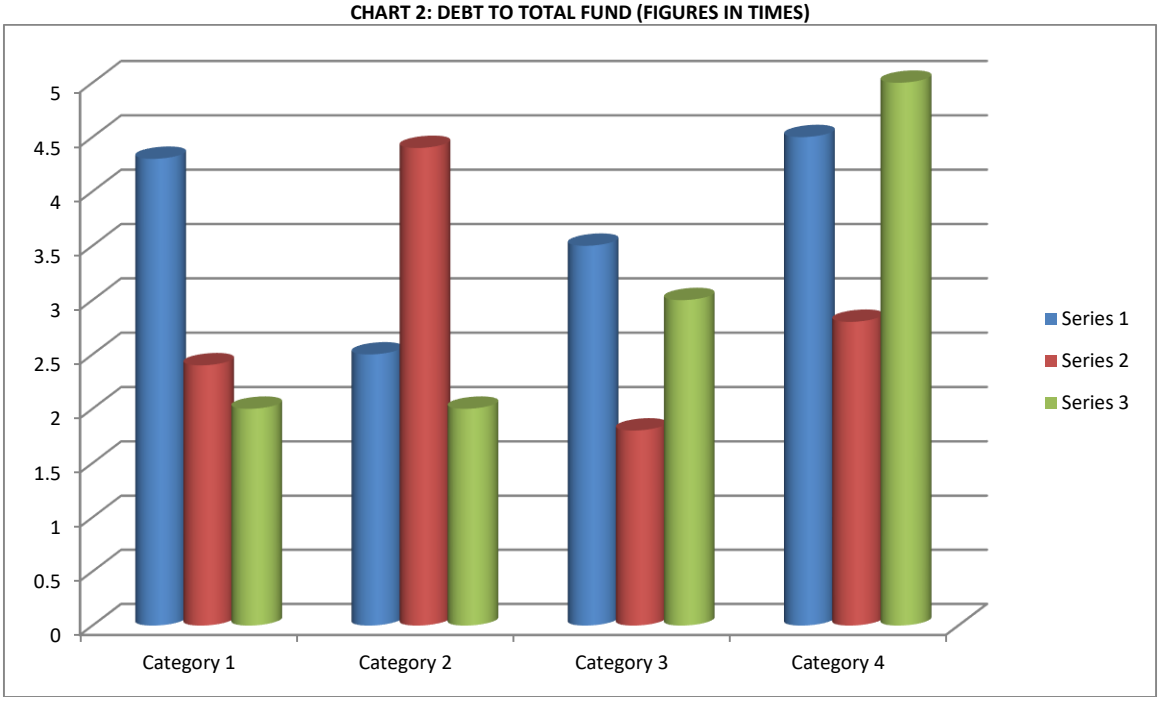


TABLE 3: GROSS PROFIT RATIO (FIGURES IN PERCENT)

Company name	2013-14	2012-13	2011-12	2010-11	2009-10	Mean	SD
JP cement	38.6	44.64	52.2	64.95	89.89	58.06	20.3
Ramco cement	6.69	18.93	21.77	15.69	23.9	17.45	6.62
Ultra Tech cement	13.63	18.48	17.71	14.27	22.56	17.33	3.6
Ambuja cement	14.22	12.64	19.6	17.9	19.93	16.86	3.26
Shree cement	14.26	20.12	13.1	6.09	25.73	15.85	7.75
Birla cement	4.1	11.08	14.78	17.86	30.94	15.71	9.84
Acc cement	8.09	9.44	14.41	14.96	16.29	12.64	3.63
JK cement	8.61	14.82	15.46	6.53	17.38	12.56	4.71
India cement	5.15	11.77	15.51	3.11	14.22	9.952	5.53
Prism cement	-0.72	2.1	2.93	6.24	14.61	5.032	5.9

Source: Author Compilation from Annual Report of the Companies

The above table 3 depicts that JP cement have highest gross profit radio with the mean score of 58.05 and implies that this company is very efficient in producing products and have efficient resource to pay for cost required to run and grow their business. On other hand companies like prism cement, India cement are having low gross profit radio with mean score 5.03 and 9.9 respectively as compare to other companies in the study. This shows that companies are inefficient in producing product.

The standard deviation of gross profit radio of JP Cement. Birla cement and spree cement is maximum (20.3, 9.8 and 7.4 respectively). It means that these companies are not consistent in generating profit. On other hand companies like Ambuja cement, Ultra tech cement and ACC cement have minimum standard deviation (i.e.3.2, 3.60 and 3.63 respectively) which implies that companies are enjoying gross profit at constant rate

CHART 3: GROSS PROFIT RATIO (FIGURES IN PERCENT)

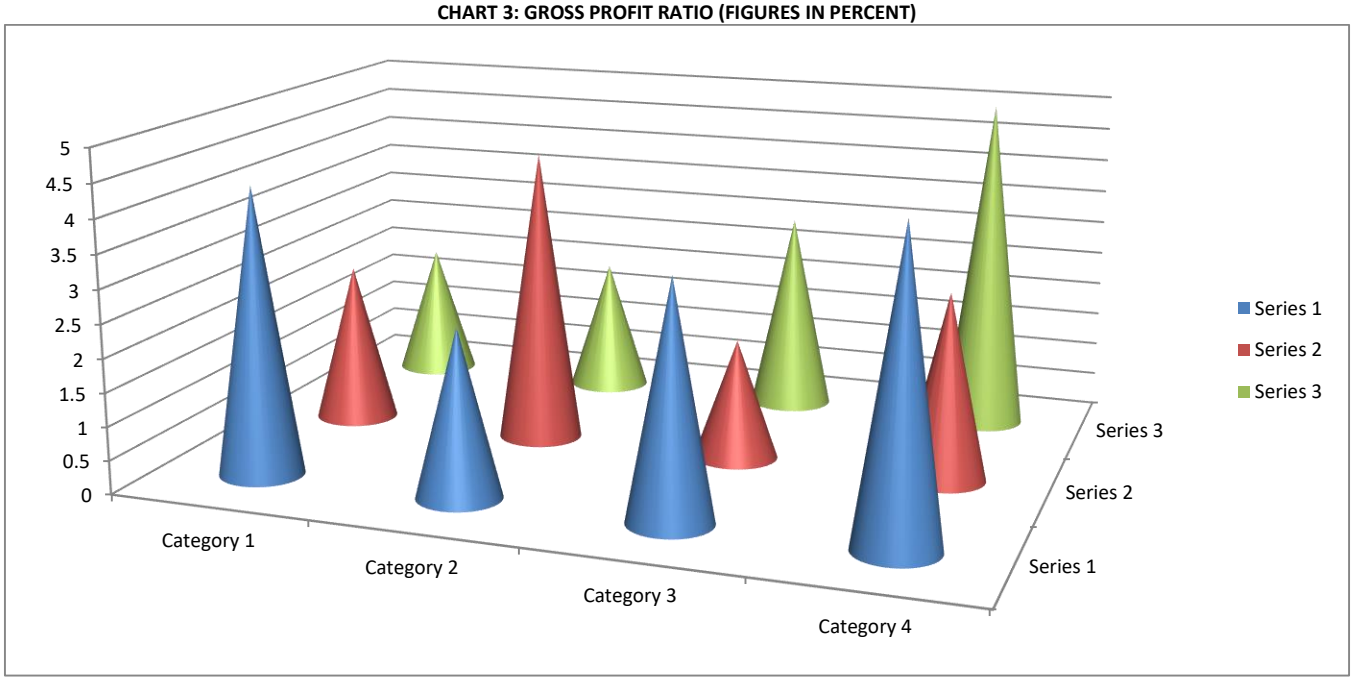


TABLE 4: RETURN ON CAPITAL EMPLOYED (FIGURES IN PERCENT)

Company name	2013-14	2012-13	2011-12	2010-11	2009-10	Mean	SD
Shree cement	17.7	27.24	25.31	7.57	25.91	20.75	8.25
Ambuja cement	18.25	16.33	25.52	21.93	21.6	20.73	3.56
Ultra tech cement	14.08	20.48	21.69	15.45	27.22	19.78	5.26
Acc cement	14.78	16.34	25.46	21.26	20.75	19.72	4.25
Birla cement	6.9	11.46	12.88	16.06	30.35	15.53	8.92
Ramco cement	7.24	17.62	17.44	9.6	16.53	13.69	4.9
JK cement	7.32	16.92	18.59	7.25	17.86	13.59	5.78
JP cement	9.35	10.83	13.36	16.44	7.62	11.52	3.46
Prism cement	4.03	4.45	6.25	9.97	21.85	9.31	7.39
India cement	4.87	8.18	10.59	3.37	10.9	7.582	3.37

Source: Author compilation form Annual of the companies

It can be observed from table 4 that return on capital employment radio is maximum in case of Shree cement, Ambuja cement, and Ultra Tech cement having the mean value of 20.7,20.78 and 19.7 times respectively as compare to other companies in the study. It implies that these companies are using their funds efficiency and are also among the preferred choice among investors. On other side the companies like India cement, Prism cement and JP cement have lowest return on capital with mean score of 7.5, 9.3 and 11.5 respectively. Birla cement and shree cement have shown inconsistency in their earning as refracted by high standard deviation. On the other companies like JP cement, Ambuja cement and ACC cement have minimum standard deviation which implies that there is a minor fluctuation in their return.

CHART 4: RETURN ON CAPITAL EMPLOYED (FIGURES IN PERCENT)

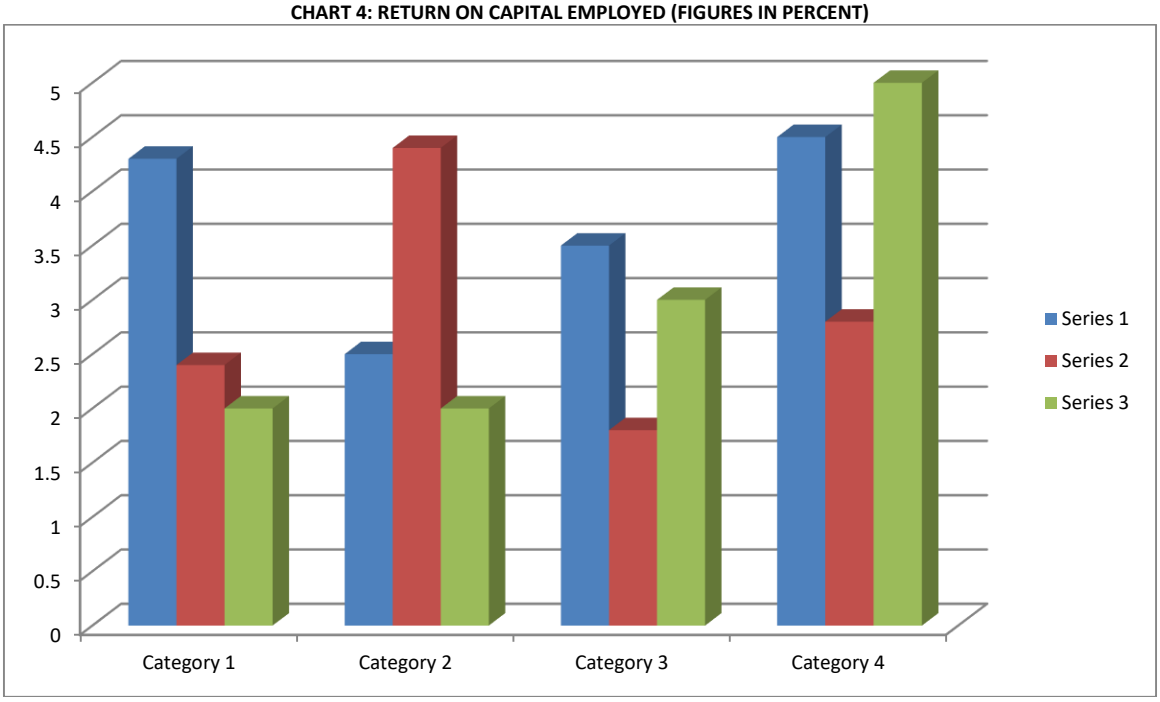


TABLE 5: RETURN ON EQUITY (FIGURES IN PERCENT)

Company name	2013-14	2012-13	2011-12	2010-11	2009-10	Mean	SD
Shree cement	16.71	26.12	22.62	10.55	36.88	22.58	9.95
JP cement	4.94	11.23	22.32	30.12	24.82	18.69	10.3
Ultra tech cement	12.54	17.43	19.12	13.16	23.73	17.18	4.58
Acc cement	14.18	14	14.37	18.42	17.31	15.66	2.06
Ramco cement	5.54	17.02	18.78	12.36	23.01	15.34	6.68
Ambuja cement	14.81	13.64	14.73	15.22	17.24	15.13	1.32
Birla cement	5.13	11.01	10.69	15.6	31.24	14.73	9.95
JK cement	5.51	13.75	13.75	5.62	20.81	11.89	6.45
India cement	-4.21	3.99	7.2	1.92	10.04	3.788	5.44
Prism cement	-8.09	-5.45	-2.61	7.93	21.46	2.648	12.1

The Return on equity ratio given in table 5 is case of Shree cement, JP cement, and Ultra tech cement with the Mean score of 22.58, 18.69 and 17.18 respectively during study period as compare to the other cement companies. It shows that these companies are more profitable as compare to other companies in the study. So these companies may be the preferred choice among investors. On the other side prism cement and India cement have lowest return on equity with mean score of 2.6 and 3.7 respectively.

The standard deviation of prism cement and JP cement is maximum with the mean score of 12.1 and 10.3 respectively. It shows that there is a Hugh fluctuation in their returns, Ambuja cement and ACC cement shows small deviation in their returns.

CHART 5: RETURN ON EQUITY (FIGURES IN PERCENT)

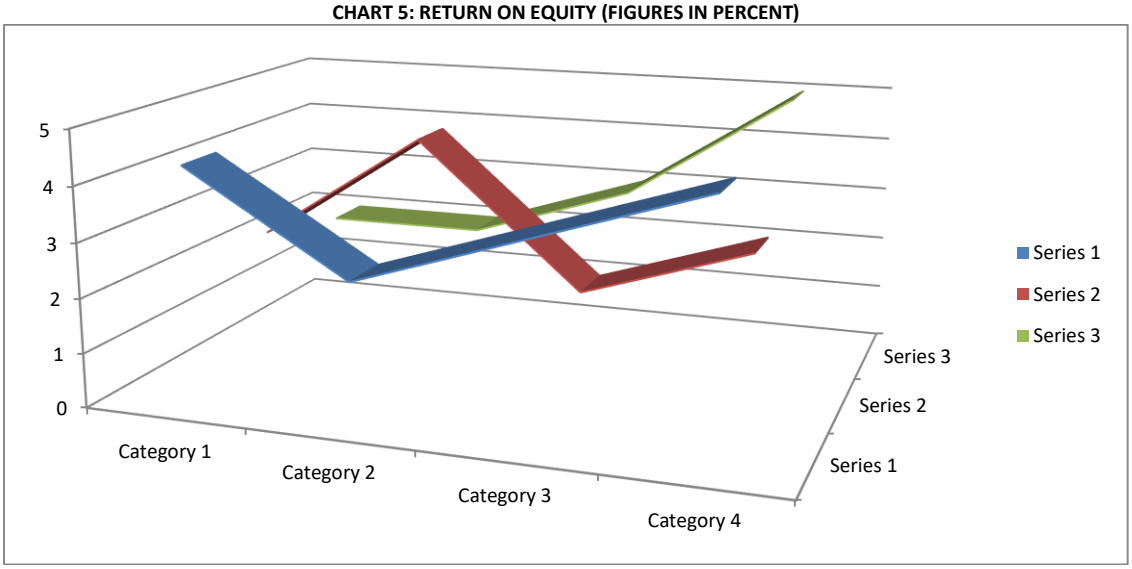


TABLE 6: DESCRIPTIVE STATISTICS

	Range	Minimum	Maximum	Mean
Debt to equity	2.87	.01	2.87	.6926
Debt to total fund	2.87	.01	2.87	.6824
Gross profit radio	90.61	.72	89.89	18.1450
Return on capital employed	26.98	3.37	30.35	15.2190
Return on equity	44.97	-8.09	36.88	13.7628

Source: Author compilation form Annual Report of the companies

The overall descriptive statistics given in table 6 shows that the debt equity ratio of the sample companies is 0.692 times and debt to total fund radio is 0.682. It means that cement companies are not using the optimum capital structure and are not in good position as far as far as capital structure and are not in good position as far as capital gearing is concerned. Further, the minimum and maximum level of profitability variable ---GRP, ROCE and ROE depict that the returns of the companies are highly fluctuated.

CHART 6: DESCRIPTIVE STATISTICS

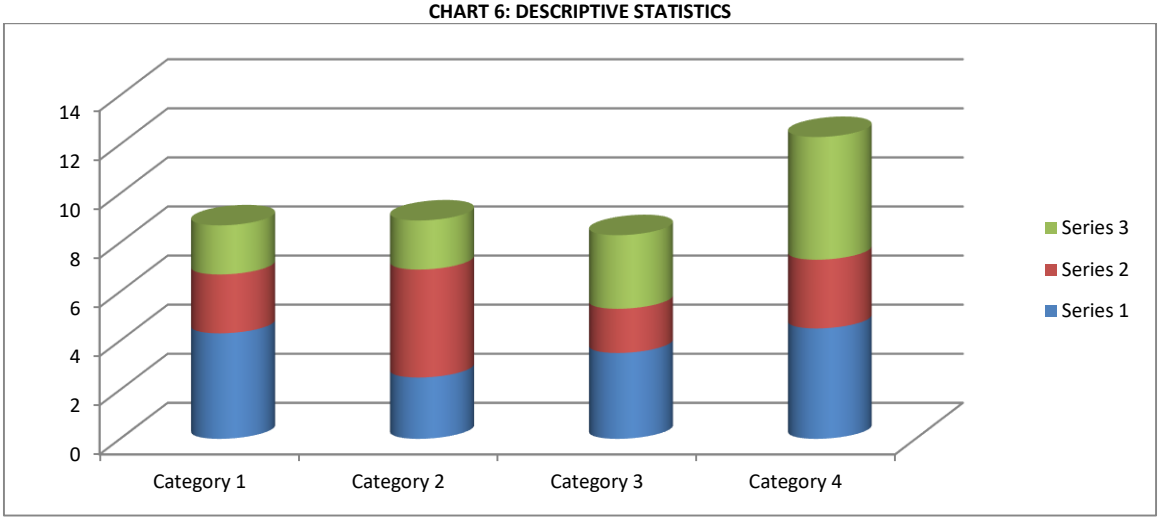


TABLE 7: CORRELATION MATRIX FOR CAPITAL STRUCTURE AND PROFITABILITY

		R/E	ROCE	GPR	DTR	D/E
R/E	Pearson correlation	1				
	sig.(2tailed)					
	N	50				
ROCK	Pearson correlation	790	1			
	Sig.(2tailed)	.000				
	N	50	50			
GP radio	Pearson correlation	563	.163	1		
	Sig.(2tailed)	.000	.258			
	N	50	50	50		
D/T fund radio	Pearson correlation	-091	-.507	.486	1	
	Sig (2-tailed)	.530	.000	.000		
	N	50	50	50	50	
D/F	Pearson correlation	-072	-.514	.491	.953	1
	sig(2tailed)	-618	.000	.000	.000	
	N	50	50	50	50	50

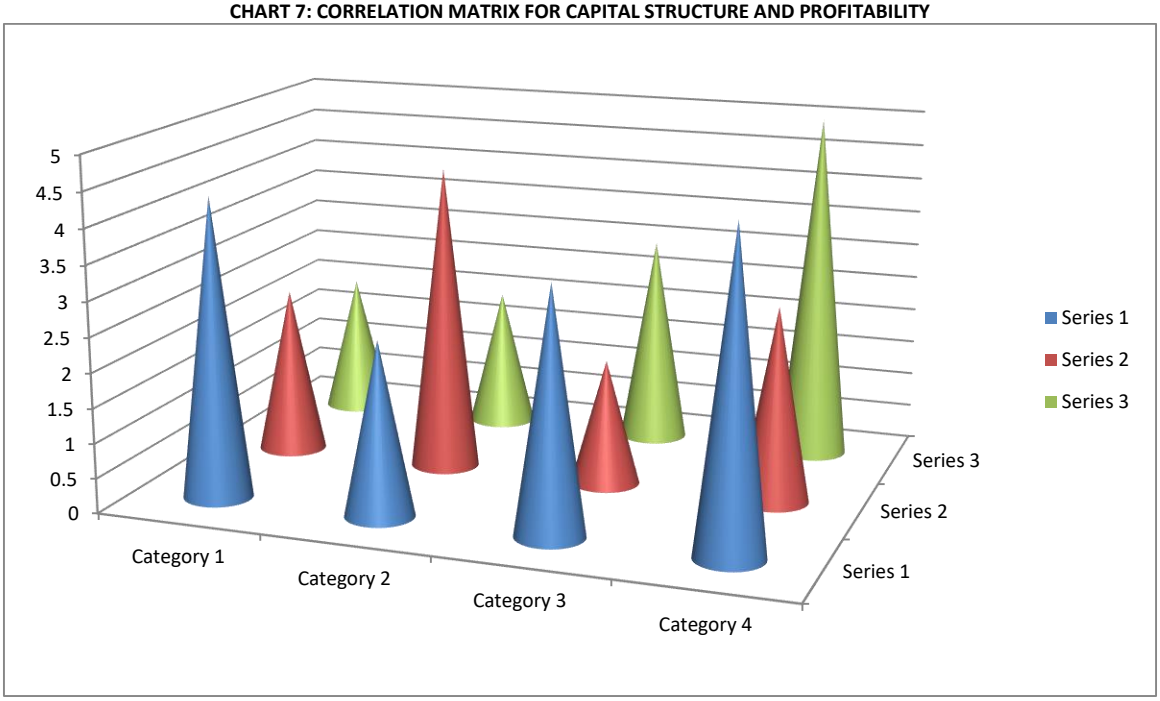
**Correlation is significant at the 0.01 level (2-tailed)

Return on equality (R/E) on capital employment (ROCE), Gross Profit Ratio (GRP), and Debt to Total Fund Ratio (DTR).Debt Equity Ratio (DER).

Correlation Analysis

Table 7: indicates that the relationship between selected capital structure and profitability negative. The negative association points toward unsuitable debt equity mix in the capital structure of the concerned companies thereby having a negative impact on the select profitability variables.

CHART 7: CORRELATION MATRIX FOR CAPITAL STRUCTURE AND PROFITABILITY



SUMMARY OF FINDINGS

From the data observed, the researcher has been made findings as follows

1. It was found that cement companies like ACC cement, Ambuja cement and Ultratech cement were low leveraged with lowest debt to equity ratio.
2. From the data observed; it was revealed that JP cement had relatively higher standard deviation as compared to other companies in the study.
3. It was found that cement companies like Ambuja cement, Ultra tech cement and ACC cement had minimum standard deviation (i.e.3.2, 3.60 and 3.63 respectively) which implies that companies were enjoying gross profit at constant rate.
4. It was showed that cement companies like JP cement, Ambuja cement and ACC cement had minimum standard deviation which implies that there was a minor fluctuation in their return.
5. It was showed that the steadily fluctuation in their returns in all the companies. But Ambuja cement and ACC cement showed small deviation in their returns.
6. It was found that the minimum and maximum level of profitability variable ---GRP, ROCE and ROE depict that the returns of the companies were highly fluctuated.
7. From the analysis, it was found that the negative association points toward unsuitable debt equity mix in the capital structure of the concerned companies thereby having a negative impact on the select profitability variables.

CONCLUSION

Cement companies contributed not only much more share of GDP to the industrial economy but also generate huge employment opportunities. From the research study, it was concluded that the major cement companies like ACC, AMBUJA, ULTRETECH, which were found higher profitability and capital structure throughout the study period. Government of India should provide the incentives to promote the other cement industries in order to attain the higher growth of the Indian economy.

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BAYESIAN NETWORKS STRUCTURE LEARNING USING CLASSIFICATION

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ABSTRACT

Data mining is becoming main stream technology used in business intelligence and applications. Data mining offers tools for discovery of relationship, patterns and knowledge from a massive database in order to guide decision about future activity. Probabilistic Graphical Models also known as Bayesian networks are popular and powerful tool in data mining. Bayesian networks provide a general and effective frame work for knowledge representation and reasoning under uncertainty. It is one of most effective theory models in expression of uncertainty knowledge because it has a strong ability for probabilistic reasoning and the characteristic of easy understanding to humans. A Bayesian network is a combination of a qualitative and a quantitative component. Structural information of domain can be represented in form of qualitative part and causality, relevance or (in) dependence relationships between variables. Using quantitative part, we can add uncertainty in to model and represents probability distributions that quantify these relationships. Once a complete Bayesian network has been built, it is an efficient tool for performing inferences. However, there still remains the previous problem of building such a network, that is, to provide the graphical structure and the numerical parameters necessary for characterizing it. As it may be difficult and time-consuming to build Bayesian networks using the method of eliciting opinions from domain experts, and there are various different domains that provides data. Learning Bayesian networks from this domain is challenging. Bayesian networks have received considerable attention from the machine learning community. There are many machine learning algorithms for automatically building Bayesian networks from data. In this paper algorithms based on Bayesian classification approach Bayes net, log score and structure learning are used for combinatorial optimization problem for commercial big data. Practical machine learning and data mining open source software weka 6.3.2 is used for knowledge discovery and data mining.

KEYWORDS

bayesian networks classifier, machine learning, scoring function, structure learning.

1. INTRODUCTION

Bayesian networks compactly represent a joint probability distribution by exploiting a set of independence assumptions between the set of random variables. A Bayesian network is a probabilistic graphical model where the random variables are represented as nodes and the conditional dependencies of the random variables are represented as edges. In Bayesian networks model selection and a structure that maximizes the posterior probability with respect to the data is very difficult. The space of all structures is super-exponential in the number of random variables and finding the optimal structure is known to be NP-hard. Many methods have been devised to overcome the obstacle of searching through such a large space. To cut down the space size greedy methods and decomposability of local scoring matrix like BDeu score. With decomposable metrics, the chosen modification can be evaluated separately from the rest of the network.

In traditional score-based search algorithms, the evaluation of the modification still requires looking at the entire dataset. If the size of data set increase the scanning database becomes very expensive.

Using a Bayesian network capturing the relationships between our uncertain beliefs in the propositions learning the truth value of one or more of the propositions, we can use Bayesian inference algorithms to find updated beliefs for each of the other propositions, and updated relationships between the propositions.

LEARNING BAYESIAN STRUCTURE

In technical term Bayesian network encodes a joint probability distribution over a set of random variables. A variable may be countable number or finite number of states or it may be continuous. Lower case letters are used to represent single variables and upper case letters are used to represent set of variables. We write x=m to denote the variable x is in state m. When we observe the state of every variable in set X, we call this set of observations a state of X. The joint space of a set of variables U is the set of all states of U. Using p(x/y) to denote the set of joint probability distribution over U is the probability distribution over the joint space of X, each one conditional on every state in the joint space of Y. A problem domain is a set of variables.

The structure of Bayesian network will depend on how the variables are ordered in the expansion of the equation 1. If the order is chosen carelessly, the resulting network structure may fall to reveal many conditional independencies in the domain. In practice, generally domain expert often can readily assert casual relationship among variables in a domain and use these assertions to construct a Bayesian network structure, without preordering the structure. Knowledge about uncertain domain is represented by graphical structure. each node in the graph represents a random variable and the edges between two nodes represent probabilistic dependencies among the corresponding random variables.

Conditional dependencies in the graph are estimated by known statistical and computational methods. Thus Bayesian networks combine ideology from graph theory, probability theory, computer science and statistics. Bayesian networks correspond to another Graphical Model structure known as a directed acyclic graph (DAG) that is popular in the Statistics, the Machine Learning. Bayesian Learning is both mathematically thorough and intuitively understandable. They enable an effective representation and computation of the joint probability distribution over a set of random variables (Pearl, 2000).

The structure of a directed acyclic graph is defined by two sets the set of nodes (vertices) and the set of directed edges. The nodes represent random variables and are drawn as circles labeled by the variables names. Direct dependence among the variables edges between nodes represented by arrows. The domain knowledge allows experts to draw an arc to a variable from each of its direct causes. Bayesian networks that specified the Joint Probability distribution using factored form, all possible inference queries by marginalization evaluated, i.e., summing out over 'irrelevant' variables. Two types of inference support are often considered: predictive support for node Xi, based on evidence nodes connected to Xi through its parent nodes (called also top-down reasoning) and diagnostic support for node, based on evidence nodes connected to Xi through its children nodes (called also bottom-up reasoning). In general, the full summation (or integration) over discrete (continuous) variables is called exact inference and known to be an NP-hard problem. Some efficient algorithms exist to solve the exact inference problem in restricted classes of networks. In many practical settings the Bayesian networks is unknown and one needs to learn it from the data. This problem is known as the Bayesian networks learning problem, which can be stated informally as follows.

Estimate the graph topology and the parameters of the joint probability distribution in the Bayesian networks. Node X_i has no parents then its local probability distribution is said to be unconditional. If the variable represented by a node is observed, then the node is said to be an evidence node, otherwise the node is said to be hidden node. In order to do Bayesian inference, prior probabilities and posterior probabilities are required. Each node is associated with it the conditional distribution for its variable. Each node has incoming edges from the nodes associated with the variables on which the node's conditional distribution is conditional Such a representation is a Bayesian network.

Several scoring functions for learning Bayesian networks have been proposed in the literature. It is common to classify scoring functions into two main categories: Bayesian and information-theoretic. In general, for efficiency purposes, these scores need to decompose over the network structure. The decomposability property allows for efficient learning algorithms based on local search methods. Moreover, when the learning algorithm searches in the space of equivalence classes of network structures, scoring functions must also be score equivalent, that is, equivalent networks must score the same.

2. CLASSIFICATION METHODOLOGY

Classification is an extensively researched topic in data mining and machine learning. The main hurdle to leveraging the existing classification methods is that these assume record data with a fixed number of attributes. In general, people dealing with sequence data use to convert the data into non-sequential data and then apply traditional classification algorithm. Commonly used classification algorithms are decision trees, k nearest neighbors, support vector machines, and bayes classifiers. Here, we briefly outline the basic classification algorithms. Though the methods to achieve classification vary based on the dataset and the model used, all the classifiers have something in common. The commonality is that they divide the given object space into disjunctive sections that are mapped to a given class. Bayesian classifiers are based on the assumption that the objects of a class can be modeled by a statistical process. Each data object has its origin the process of a given class with a certain probability and each process of a class generates objects with a certain probability called prior probability. To decide which class is to be predicted for a given object, it is necessary to determine the probability called the posterior probability of the object. It describes the probability that an object has its origin in that particular class. To determine the posterior probability, the rule of Bayes is used.

In Bayesian, classifier training is very fast. Also the model designed is simple and intuitive. Error is minimized in Bayesian, classifier subject to the assumptions of independence of attributes and data satisfying distribution model. Both these methods are used in machine learning and related algorithm know as Naive Bayes Classifier and Decision tree J48 are developed in weka 3.6.2 open source software. These two algorithms are used for classification of the data.

For classification and prediction decision trees are powerful and popular tools. Decision trees are more popular because in contrast to the neural network based approach they generate rules. These rules can easily be interpreted so that we can understand them. These rules can also be transformed into a database access language like SQL in order to retrieve quickly the records falling into a particular category.

For classification, the attribute values of a new object are tested beginning with the root. At each node, the data object can pass only one of the tests that are associated with the departing edges. The tree is traversed along the path of successful tests until a leaf is reached. Multiple algorithms have been proposed in the literature for constructing decision trees Generally, these algorithms split the training set recursively by selecting an attribute. The best splitting attribute is determined with the help of quality criteria. Examples of such quality criteria are information gain, gini index, Shannon information theory, and statistical significance tests. The advantages of decision trees are that they are very robust against attributes that are not correlated to the classes because those attributes will not be selected for a split. Another more important feature is the induction of rules. Each path from the root to a leaf provides a rule that can be easily interpreted by a human user. Thus, decision trees are often used to explain the characteristics of classes.

2.1 BAYESIAN SCORING FUNCTION

Compute the posterior probability distribution, starting from a prior probability distribution on the possible networks, conditioned to data T, that is, P (B|T). The best network is the one that maximizes the posterior probability. Since the term P (T) is the same for all possible networks, in practice, for comparative purposes, computing P(B, T) is sufficient. As it is easier to work in the logarithmic space, the scoring functions use the value log (P(B, T)) instead of P(B, T).

2.2 LOCAL SCORING METRICS

Local score metrics implemented Bayes, BDe, MDL, entropy, AIC. The minimum description length principle establishes an appropriate trade-off between complexity and precision in order to represent the network, we must store its probability values, and this requires a length which is proportional to the number of free parameters of the factorized joint probability distribution.

We have implemented various local search hill climbing algorithms such as K2, Hill Climb and Tree Augmented Naive Bayes. K2 adds arcs with a fixed ordering of variables. Hill climbing adding and deleting arcs with no fixed ordering of variables. Calculating the maximum weight spanning tree using Chow and Liu algorithm a tree can be formed.

3. DATA ANALYSIS AND RESULTS

Reserve bank data of year 1992 to 2012 is used for Bayesian classification Bayesian net structure learning and analysis of assets and liability. There are 45 attributes and 1859 instances. In the data one of the attribute is bank groups. There are five bank groups Foreign banks, Nationalized bank, New private sector banks, Old private sector banks, SBI And Its Associates. Other details of attributes are in appendix table A. Three selected machine learning algorithms Bayesian classification Bayes net local space search algorithm K2, Hill Climb. TAN algorithms are used from- Weka 3.6.2 open source software. For each of these algorithms, five different executions were repeated with different seed values. At each execution the seed value was used to perform stratified cross validation. Thus, the results can be interpreted / analyzed in a more realistic way. In Bayesian, classifier training is very fast. Also the model designed is simple and intuitive. In Bayesian, classifier error is minimized subject to the assumptions of independence of attributes and data satisfying distribution model. The precision results were obtained by Bayesian Classifier Bayes net and Naive Bayes, Bank Group was taken as parent node The Bayesian approach yielded an 73% correctly classified instances and incorrectly classified instances 27%. The main motivation for testing the Bayes net approach was its efficiency, and simplicity, however, the results obtained show that Bayes net TAN local Search structure is effective as desired. Various log score are obtained for different local search algorithms. Bayes Network can be learned using search algorithms and quality measures. Base class for a Bayes Network classifier. Provides data structures (network structure, conditional probability distributions, etc.) and facilities common to Bayes Network learning algorithms like K2.The overall accuracy is another measure commonly used for investigating the quality of classifiers. Accuracy values should be analyzed carefully, because they are not recommended to make decisions about the best classifiers, nonetheless, they can be useful to have intuition about general trends. While precision gives a notion of the proportion of correct predictions out of all the positive predictions, accuracy gives the proportion of correct predictions out of all the examples, either positive or negative. The overall accuracy is calculated using various algorithms and Obtained results are given in Appendix table A. Other statistical measures Confusion matrix, Kappa Statistics, ROC curve True positive rate, false positive rate is displayed in the appendix table B.

TABLE 1: VARIOUS STRUCTURE LEARNING MEASURES

Various Algorithms	TAN	Hill-Climb	K2
Time taken to build model(in seconds)	0.45	0.36	0.14
Correctly Classified Instances	96.50%	72.55%	72.55%
Incorrectly Classified Instances	3.50%	27.45%	27.45%
Kappa statistic	0.9526	0.6363	0.6363
Mean absolute error	0.0153	0.1109	0.1109
Root mean squared error	0.1075	0.3176	0.3176
Relative absolute error	5.17%	37.47%	37.47%
Root relative squared error	27.95%	82.57%	82.57%

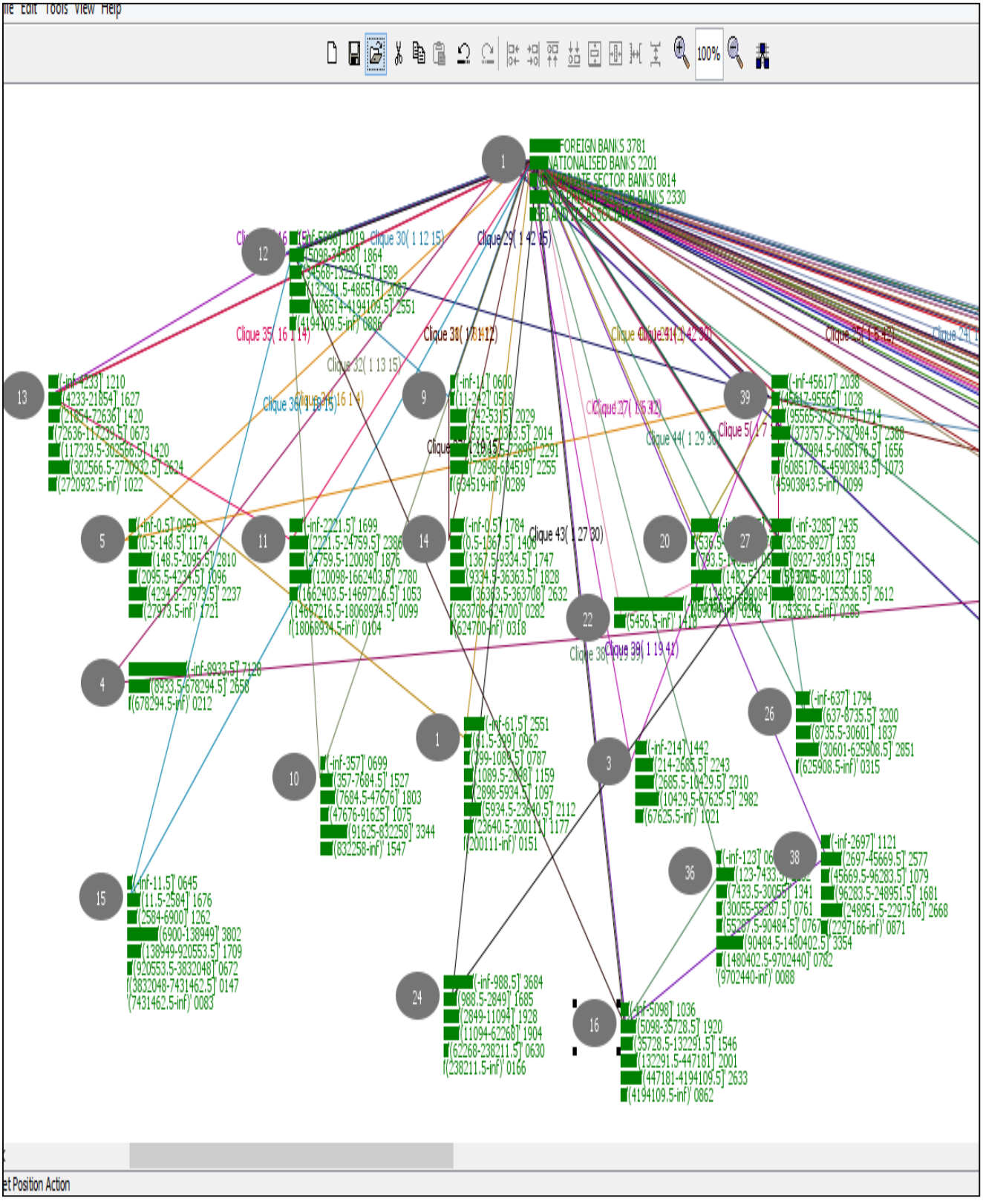
Here TAN algorithm provides the best result in terms of accuracy with 96% correctly classified instances, Kappa statistics 0.9526, Mean squared and Root mean squared error are near to zero.

TABLE 2: BAYESIAN NET LOG SCORE OF VARIOUS ALGORITHM

Various Log Score	TAN	Hill-Climb	K2
Log Score Bayes	-67445.33	-99300.54	-99300.54
Log Score Bdeu	-246987.56	-107581.78	-107581.78
Log Score MDL	-184265.78	-106345.90	-106345.90
Log Score ENTROPY	-97254.47	-99951.50	-99951.50
Log Score AIC	-120373.47	-101650.50	-101650.50

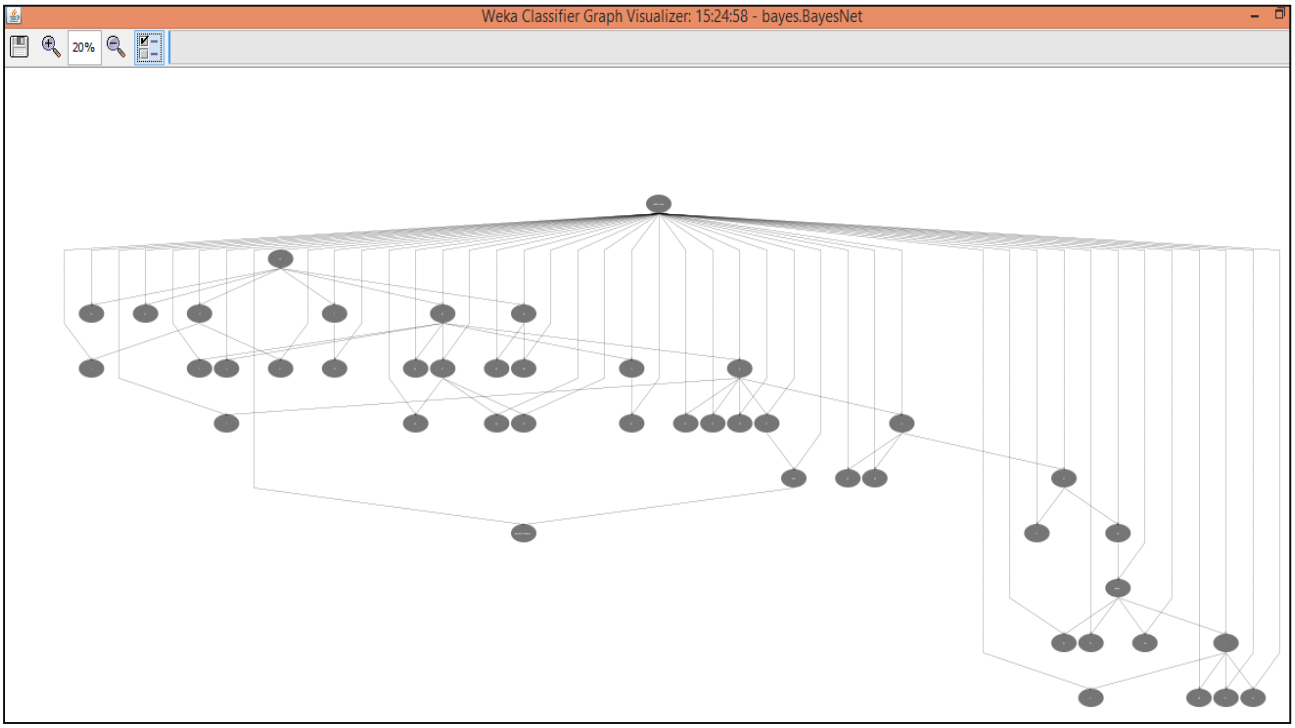
Tan algorithm of structure learning provides best log score Bdeu and second best score MDL compare to Hill climb and K2 algorithm

FIGURE 1: BAYESIAN NET USING BANK GROUP AS PARENT NODE



All 45 attributes were taken and Bayesian Net structure learned with relationship between nodes and probability as parameters obtained for each node.

FIGURE 2: TAN GRAPH OF BAYESIAN NETWORK



Tan graph provides the structure of the graph and dependencies among all 45 attributes.

FIGURE 3: NUMBER OF BANK GROUP

Selected attribute

Name: Bank Group Type: Nominal
Missing: 0 (0%) Distinct: 5 Unique: 0 (0%)

No.	Label	Count
1	FOREIGN BANKS	703
2	NATIONALISED BANKS	409
3	NEW PRIVATE SECTOR BANKS	151
4	OLD PRIVATE SECTOR BANKS	433
5	SBI AND ITS ASSOCIATES	162

Using classification and probabilistic querying we can get the categorical information of various Bank groups information from the data.

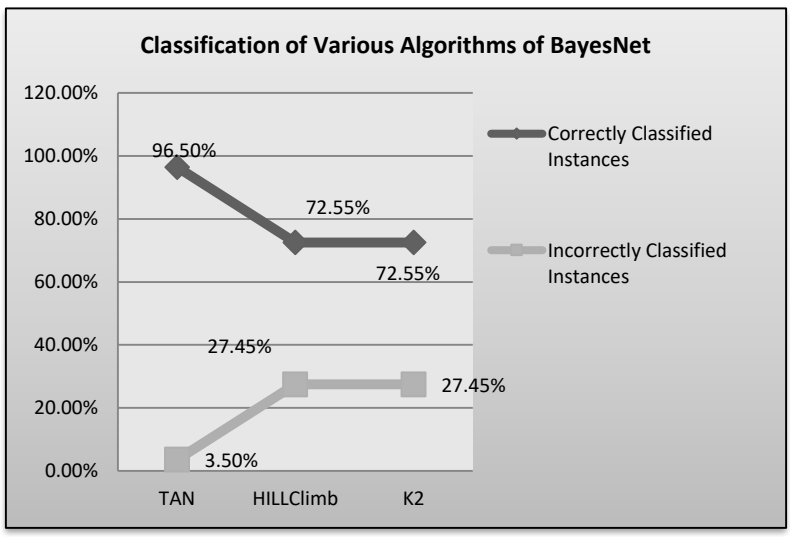
FIGURE 4: PROBABILITY DISTRIBUTION OF BANK GROUP

Probability Distribution Table For Bank Group

FOREIGN BANKS	NATIONALISED...	NEW PRIVATE ...	OLD PRIVATE S...	SBI AND ITS A...
0.378	0.22	0.081	0.233	0.087

The whole database is converted in the form of probability. The above figure display the probability related to bank group data.

FIGURE 5: STRUCTURE LEARNING ALGORITHM PERFORMANCE



Comparison of various measures of classification of various structure learning algorithms

FIGURE 6: PERFORMANCE OF BAYESIAN NET LOG-SCORE

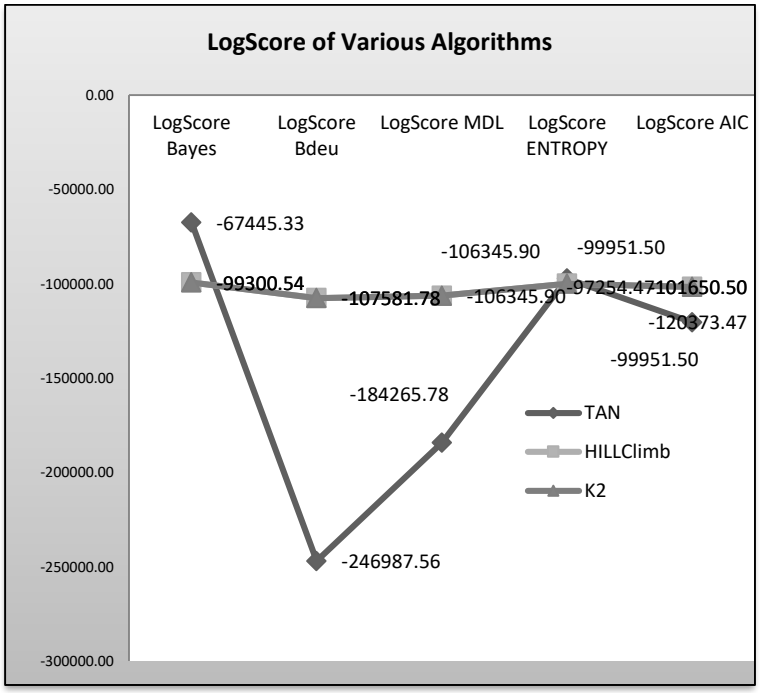


FIGURE 7: MEASURES OF CLASSIFICATION OF BAYESNET

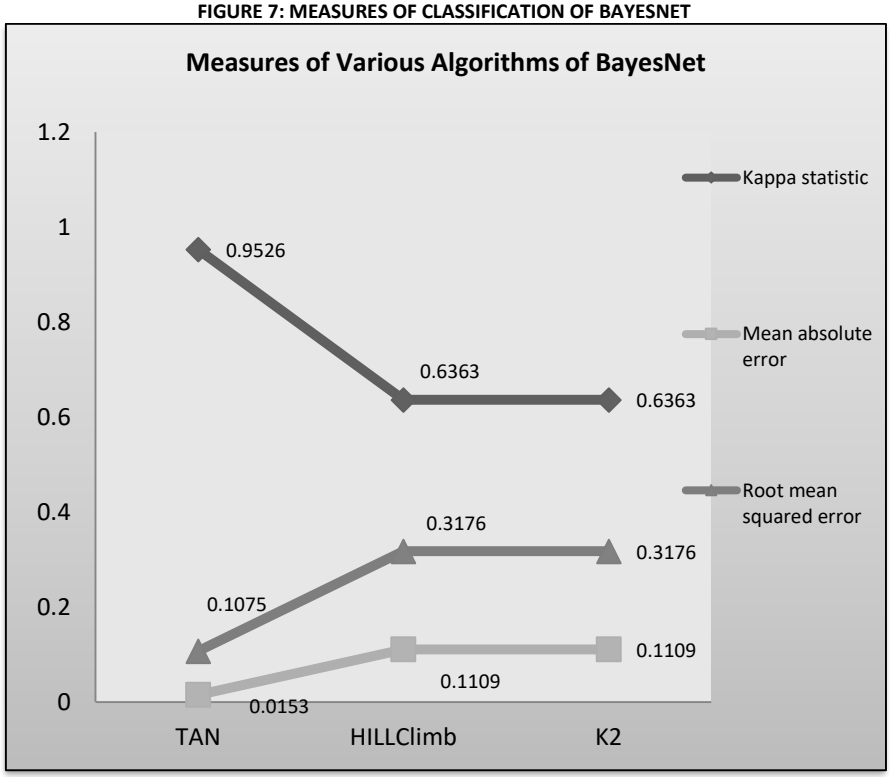
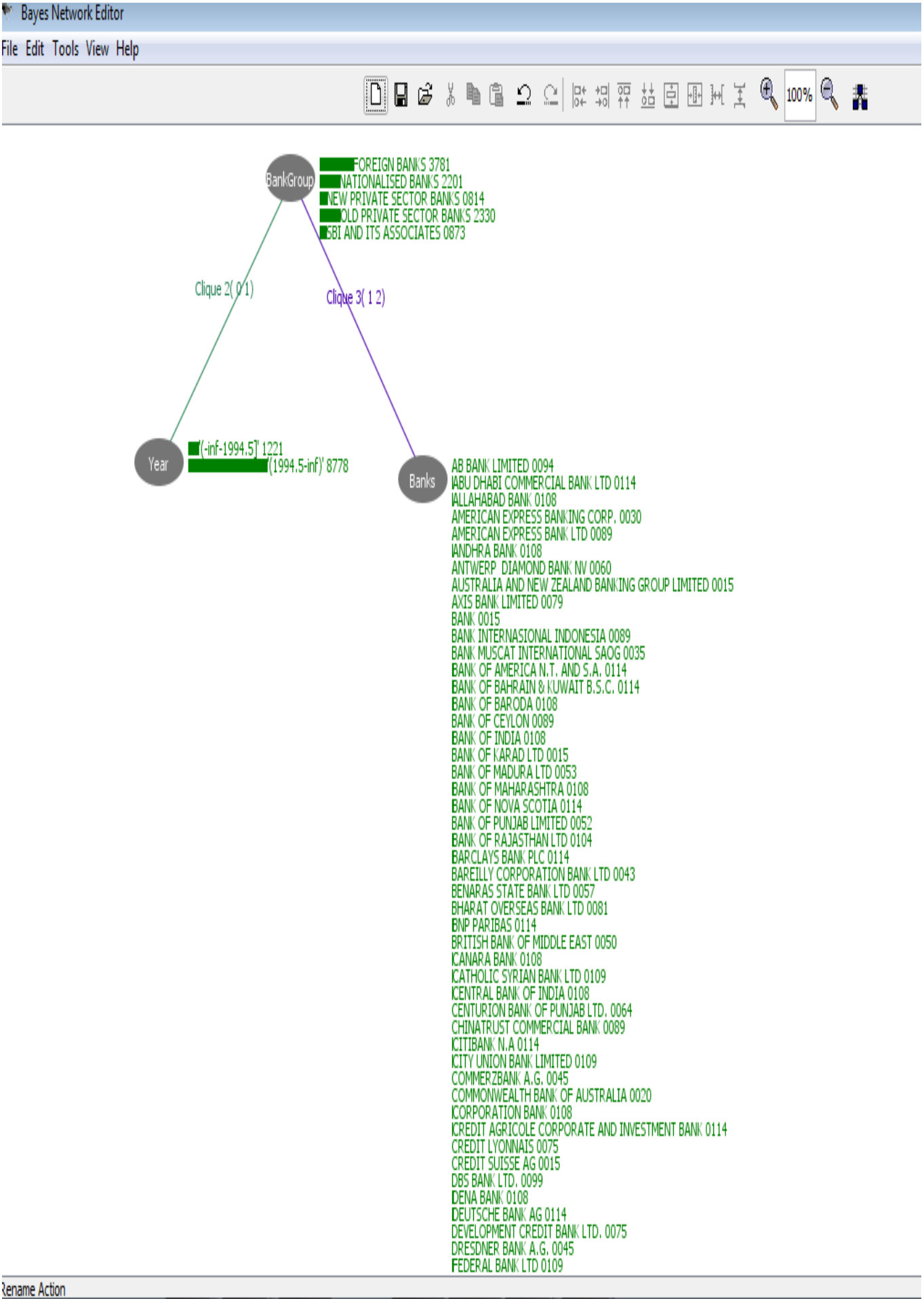


FIGURE 8: LIMITED NODE STRUCTURE - BAYESIAN NET USING BANK GROUP AS PARENT NODE



Only three attribute are taken relationship between nodes and probability obtained for each attribute.

FIGURE 9: NUMBER OF BANKS AND RELATED PROBABILITY OF EACH BANK

Probability Distribution Table For Bank Group

Banks	FOREIGN BANKS	NATIONALISED BANKS	NEW PRIVATE SECTOR BANKS	OLD PRIVATE SECTOR BANKS	SBI AND ITS ASSOCIATES
AB BANK LIMITED	0.897	0.026	0.026	0.026	0.026
ABU DHABI COMMERCIAL BANK LTD	0.915	0.021	0.021	0.021	0.021
ALLAHABAD BANK	0.021	0.915	0.021	0.021	0.021
AMERICAN EXPRESS BANKING CORP.	0.692	0.077	0.077	0.077	0.077
AMERICAN EXPRESS BANK LTD	0.892	0.027	0.027	0.027	0.027
ANDHRA BANK	0.021	0.915	0.021	0.021	0.021
ANTWERP DIAMOND BANK NV	0.84	0.04	0.04	0.04	0.04
AUSTRALIA AND NEW ZEALAND BANKING GROUP LIMITED	0.429	0.143	0.143	0.143	0.143
AXIS BANK LIMITED	0.024	0.024	0.902	0.024	0.024
BANK	0.429	0.143	0.143	0.143	0.143
BANK INTERNASIONAL INDONESIA	0.892	0.027	0.027	0.027	0.027
BANK MUSCAT INTERNATIONAL SAOG	0.733	0.067	0.067	0.067	0.067
BANK OF AMERICA N.T. AND S.A.	0.915	0.021	0.021	0.021	0.021
BANK OF BAHRAIN & KUWAIT B.S.C.	0.915	0.021	0.021	0.021	0.021
BANK OF BARODA	0.021	0.915	0.021	0.021	0.021
BANK OF CEYLON	0.892	0.027	0.027	0.027	0.027
BANK OF INDIA	0.021	0.915	0.021	0.021	0.021
BANK OF KARAD LTD	0.143	0.143	0.143	0.429	0.143
BANK OF MADURA LTD	0.043	0.043	0.043	0.826	0.043
BANK OF MAHARASHTRA	0.021	0.915	0.021	0.021	0.021
BANK OF NOVA SCOTIA	0.915	0.021	0.021	0.021	0.021
BANK OF PUNJAB LIMITED	0.037	0.037	0.852	0.037	0.037
BANK OF RAJASTHAN LTD	0.022	0.022	0.022	0.911	0.022
BARCLAYS BANK PLC	0.915	0.021	0.021	0.021	0.021
BAREILLY CORPORATION BANK LTD	0.053	0.053	0.053	0.789	0.053
BENARAS STATE BANK LTD	0.04	0.04	0.04	0.84	0.04
BHARAT OVERSEAS BANK LTD	0.029	0.029	0.029	0.886	0.029
BNP PARIBAS	0.915	0.021	0.021	0.021	0.021
BRITISH BANK OF MIDDLE EAST	0.81	0.048	0.048	0.048	0.048
CANARA BANK	0.021	0.915	0.021	0.021	0.021
CATHOLIC SYRIAN BANK LTD	0.021	0.021	0.021	0.915	0.021
CENTRAL BANK OF INDIA	0.021	0.915	0.021	0.021	0.021
CENTURION BANK OF PUNJAB LTD.	0.03	0.03	0.879	0.03	0.03
CHINATRUST COMMERCIAL BANK	0.892	0.027	0.027	0.027	0.027
CITIBANK N.A	0.915	0.021	0.021	0.021	0.021
CITY UNION BANK LIMITED	0.021	0.021	0.021	0.915	0.021
COMMERZBANK A.G.	0.789	0.053	0.053	0.053	0.053
COMMONWEALTH BANK OF AUSTRALIA	0.556	0.111	0.111	0.111	0.111
CORPORATION BANK	0.021	0.915	0.021	0.021	0.021
CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK	0.915	0.021	0.021	0.021	0.021
CREDIT LYONNAIS	0.871	0.032	0.032	0.032	0.032
CREDIT SUISSE AG	0.429	0.143	0.143	0.143	0.143
DBS BANK LTD.	0.902	0.024	0.024	0.024	0.024
DENA BANK	0.021	0.915	0.021	0.021	0.021

4. CONCLUSIONS

Various Bayesian classification approaches Bayesnet perform well. The local structure search obtained by Tree Augmented Naive Bayes where the tree is formed by calculating the maximum weight spanning tree using Chow and Liu algorithm perform batter. Graphical models capable of displaying relationships clearly and intuitively with conditional probability of each node. Graphical model can be used to represent indirect in addition to direct causation. For different no of attributes, the Bayes log-score is different. If number of attributes or node increases Bayesian net perform batter. Bayesian networks are directional, thus being capable of representing cause-effect relationships various search algorithm.

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APPENDIX

A.

=== Run information ===
Scheme:weka.classifiers.bayes.BayesNet -D -Q weka.classifiers.bayes.net.search.local.K2 -- -P 1 -S BAYES -E weka.classifiers.bayes.net.estimate.SimpleEstimator -- -A 0.5
Relation: For analysis Assets ver 1
Instances: 1858
Attributes: 45
Year
Bank Group
Banks
Amount in Rupees
1. Cash in hand
2. Balances with RBI
3. Balances with banks in India
4. Money at call and short notice
5. Balances with banks outside India
6.1. Investments in India
6.2. Investments outside India
6. Investments
7A.1. Bills purchased and discounted
7A.2. Cash credits, overdrafts & loans
7A.3. Term loans
7. Advances
7B.1. Secured by tangible assets
7B.2. Covered by Bank/Govt. Guarantees
7B.3. Unsecured
7C.I. Advances in India
7C.II. Advances outside India
8.1. Premises
8.2. Fixed assets under construction
8.3. Other Fixed assets
8. Fixed Assets
9.1. Inter0office adjustments (net)
9.2. Interest accrued
9.3. Tax paid
9.4. Stationery and Stamps
9.5. Others
9. Other Assets
(i) Government securities
(i) Government securities
(iii) Banks
(iii) Others
(iii) Shares
(ii) Other approved securities
(ii) Public sectors
(ii) Subsidiaries and/or joint ventures
(i) Priority sectors
(iv) Debentures and Bonds
(iv) others
Total Assets
(vi) Others
(v) Subsidiaries and/or joint ventures
Test mode:10-fold cross-validation

B.

=== Classifier model (full training set) ===
Bayes Network Classifier
not using ADTree
#attributes=45 #classindex=1
Network structure (nodes followed by parents)
Year(2): Bank Group
Bank Group(5):
Banks(127): Bank Group
Amount in Rupees(1): Bank Group
1. Cash in hand(8): Bank Group
2. Balances with RBI(8): Bank Group
3. Balances with banks in India(5): Bank Group
4. Money at call and short notice(3): Bank Group
5. Balances with banks outside India(6): Bank Group
6.1. Investments in India(9): Bank Group
6.2. Investments outside India(6): Bank Group
6. Investments(7): Bank Group
7A.1. Bills purchased and discounted(7): Bank Group
7A.2. Cash credits, overdrafts & loans(6): Bank Group
7A.3. Term loans(7): Bank Group
7. Advances(6): Bank Group
7B.1. Secured by tangible assets(7): Bank Group
7B.2. Covered by Bank/Govt. Guarantees(7): Bank Group
7B.3. Unsecured(8): Bank Group
7C.I. Advances in India(6): Bank Group
7C.II. Advances outside India(5): Bank Group
8.1. Premises(10): Bank Group
8.2. Fixed assets under construction(2): Bank Group
8.3. Other Fixed assets(6): Bank Group
8. Fixed Assets(8): Bank Group
9.1. Inter0office adjustments (net)(2): Bank Group
9.2. Interest accrued (9): Bank Group
9.3. Tax paid(6): Bank Group
9.4. Stationery and Stamps(9): Bank Group
9.5. Others(5): Bank Group
9. Other Assets(6): Bank Group
(i) Government securities(3): Bank Group
(i) Government securities(7): Bank Group
(iii) Banks(3): Bank Group
(iii) Others(4): Bank Group
(iii) Shares(6): Bank Group
(ii) Other approved securities(8): Bank Group
(ii) Public sectors(8): Bank Group
(ii) Subsidiaries and/or joint ventures(4): Bank Group
(i) Priority sectors (8): Bank Group
(iv) Debentures and Bonds(6): Bank Group
(iv) others(6): Bank Group
Total Assets(7): Bank Group
(vi) Others(4): Bank Group
(v) Subsidiaries and/or joint ventures(5): Bank Group
=== Stratified cross-validation ===
=== Detailed Accuracy By Class ===
TP Rate FP Rate Precision Recall F-Measure ROC Area Class
0.74 0.072 0.862 0.74 0.796 0.939 FOREIGN BANKS
0.853 0.077 0.759 0.853 0.803 0.968 NATIONALISED BANKS
0.536 0.06 0.443 0.536 0.485 0.874 NEW PRIVATE SECTOR BANKS
0.651 0.082 0.707 0.651 0.678 0.899 OLD PRIVATE SECTOR BANKS
0.716 0.057 0.545 0.716 0.619 0.937 SBI AND ITS ASSOCIATES
0.6992 0.073 0.741 0.726 0.729 0.931 Weighted Avg.

USERS' CONSCIOUSNESS AND PRACTICES REGARDING SMARTPHONE SECURITY THREATS, VULNERABILITIES AND SECURITY MEASURES: A RESEARCH IN THE TARKWA-NSUAEM MUNICIPALITY OF THE WESTERN REGION, GHANA

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ABSTRACT

Mobile phone; which in some few years past was nothing more than a call-making tool, and at best for text messaging, has evolved to be very powerful device, hence the modern name: Smartphone. Smartphone's unique computing capabilities, varied catalogue of software applications, fast connectivity, intuitive tendency and user-friendliness, blended with portability make it a fully-fledged miniaturized computer that fit into the user's pocket. Owing to the enormous functionalities and wealthy information a smartphone can hold, it has become an attractive mine field for attackers and malware creators. As smartphone gain unprecedented admiration and international usage statistics swells exponentially, hackers are enticingly lured to maliciously prey on the unsecured device of the uninformed user. This research focuses on smartphone user's consciousness towards mobile security threats, vulnerabilities and user's security culture and countermeasures taken to avert any mobile threat. The interpretation of results revealed that most of the smartphone users were not conscious of the need for security on their mobile handset nor do users enable the necessary security features.

KEYWORDS

mobile, smartphone, cyber security, vulnerabilities, countermeasures, mobile security, security threats.

I. INTRODUCTION

A. DEFINITION OF SMARTPHONE

Smartphone refers to the state-of-the-art cell phone device, distinguishable from the ordinary telephone by the integration of advanced features such as operating system to run software applications, wireless technology for connectivity, web browsers for internet accessibility, digital camera with video capturing capabilities and an embedded memory for storage [1].

Smartphone as "a mobile communication device is optimized in its specification and features to support one or more primary functions like music, video, gaming, pictures, browsing, mobile TV, navigation and messaging." Smartphones typically have larger displays, powerful processors, embedded memory, improved battery capacity and touchscreen for content manipulation and data input [2].

Smartphone is currently a fully-fledged miniaturized computer that fit into the user's pocket. Intended for making voice and video calls, web browsing, capturing videos and images, instant text messaging, playing built-in and downloaded games, listening to audio and watching videos, managing contacts, rendering social media applications, connecting to other devices via Bluetooth technology, mobile banking, storing personal data and a host of functionalities; smartphone has almost turned out to be an inseparable part of user's personal and professional lifestyle. It is becoming an intimate component of the digital ecosystem and has permeated the facets of modern lifestyle for millions of users around the world. Contemporary smartphones have improved capabilities, enhanced processing power, and unprecedented internet connectivity that make them to be virtually as resourceful as a computer [3].

Nevertheless, smartphones are open to security risk and security challenges that would yield undesirable results if left unattended to [4]. Hostile intruders and interlopers are relentlessly intercepting the device to gain access to sensitive information such as ATM codes, credit card pins, bank account numbers, login credentials, etc., that can lead them to steal elements of financial worth.

Furthermore, the smartness of the smartphone is displayed by the mobile applications it runs. These mobile applications have some mischievous ones which have malware embedded in it to spy on the user's call logs, browsing history, precise locations, and viewing private pictures or videos of victim's device.

There is therefore a need for defensive mechanisms to mitigate information leakage and data lost, protect the confidentiality and integrity of data, thwart the effort of ruthless spies from locating mobile devices, block unscrupulous intruders from accessing a locked phone, fish out malicious websites and emails, and remotely lock out phone thieves from cracking down the device for unsolicited information.

B. OBJECTIVES OF THE STUDY

The objective of this research is to evaluate user's awareness regarding smartphone security threats, vulnerabilities and to also appraise the countermeasures users take in the incidence of security threats. The specific objectives are:

1. To evaluate user's knowledge of smartphones security threats and vulnerabilities.
2. To analyze user's security culture and practices in the incidence of the security threat.

3. To propose efficient measures to protect the mobile device and its sensitive content

C. RESEARCH QUESTIONS

In realizing the purpose of the research, the following research questions are raised:

1. What is the level of importance that user's accord to the content or information stored of their smartphone?
2. Do smartphone users put in place authentication mechanisms or access control methods to restrict unauthorized access to their device?
3. Do smartphone users fully read and understand permissions that accompany mobile applications they download from the various mobile app stores?
4. Do smartphone users install security software on their device to detect, protect and offset any security threat?
5. Do smartphone users know the availability of anti-theft applications, locating tracking services or retrieval mechanisms that can be used to trail, wipe remotely or retrieve the device in case phone lost or theft?

D. IMPORTANCE OF THE STUDY

With virtually all financial businesses going mobile, social media applications via mobile device gaining unprecedented admiration, worldwide smartphone usage statistics swelling exponentially and hackers' skills growing to be more advanced, it is even more critical that mobile devices are appropriately provided the requisite security. Nearly every smartphone user stands a chance of being a prey of the malicious deeds of cybercriminals; consequently, the need for mobile security [5]. Keeping the user out of the darkness of ignorance of mobile security and enhancing the user's knowledge on mobile device security measures can greatly improve the compliance with effectual security practices to counterbalance any security threat to mobile devices [6].

II. RESEARCH REVIEW

A. MOBILE SECURITY THREATS AND CLASSIFICATION

Mobile security threat is a probable risk that might exploit a weakness in a system to violate security and consequently cause a possible mischief. The essential attractive entities for attackers of mobile devices are: the data on the device, the identity of users and the denial of service to user. [7]

Mobile security threats can be broadly classified as:

1. User-based threat vector
2. Application-based threat vector
3. Web-based threat vector
4. Network-based threat vector
5. Physical threat vector

User-based threat vector: The principal threat to the leakage of confidential and delicate material (images, videos, audio, etc.) on smartphones stems from user's sheer negligence and carelessness, rather than technical interloping [8]. Most users make their device an easy prey for attackers in their indulgence of unsafe behaviors such as not protecting the mobile device from unauthorized entry through access control mechanism (password, pattern or pin), ignorantly clicking on any link inserted in text messages or email from unknown sources, joining anonymous Wi-Fi networks and using free public Wi-Fi hotspots, not being particular about apps' permissions when installing apps and removing software restrictions on smartphone to evade security controls (Jail breaking or rooting). [9]

Application-Based Threat Vector: This threat resides in downloaded applications from mischievous websites or app stores. Some developers embed malicious codes into applications to fraudulently spy on users. Included in application-based threats are malware and spyware. *Malware* (shortened form of "Malicious software") executes its intended actions secretly while installed on smartphone without the user's awareness. It's mostly found in game demos and free apps. [10, 11]. *Spyware* is related to software that pops up advertisements (called *adware*) to generate a revenue pond for its creator. Information often aimed at by spyware includes call log history, received or sent text messages, user's precise location, browsing history, phonebook contact list, email's inbox or outbox. [12,13]. Recent report from Snoop Wall Mobile Security indicated that most flashlights on the Google Play Store are malicious and can access user's device storage and install additional backdoors or Remote Access Trojans (RATs). [14]

Web-based threat vector: This threat presents an incessant, relentless and persistent risk to mobile devices due to the fact that the device is continuously connected to the web. Some well-known major threats to smartphone via the web include: Phishing Scams (use of email or SMS to send illicit link, premeditated to trick receivers in given out passwords, pins, or useful information), Browser exploits [15] and Drive-By downloads (a misleading pop-up) [16] [17].

Network-based Threat Vector: Characteristically, smartphone supports cellular network (GSM) as well as local wireless networks (Wi-Fi and Bluetooth). These data transmission networks can horde various classes of threats such as Network exploits, Wi-Fi Sniffing [18] and Bluetooth network vulnerability [19] [20].

Physical Threat Vector: Possibly, the very lightness and portability of mobile phones makes them easily to be stolen or misplaced. This is the physical threat to the device. Stolen or misplaced smartphone also implies stolen or loss of sensitive data and information stored on the device. It is riskier, if the stolen or misplaced mobile device finds itself in the hands of an advanced attacker; slack security features of most mobile phones could be overpowered affording the attacker entry to any information stored [21] [22].

B. MOBILE SECURITY MEASURES

The risk of intruders interfering with mobile devices can be significantly reduced to barest minimum, if users are cautious to develop a security culture and apply proper security measures on their smartphones. Keeping the user out of the darkness of ignorance of mobile security and enhancing the user's knowledge through enlightenment can greatly improve the compliance with effectual security practices to counterbalance any security threat to mobile devices. The following tips can ensure maximum security on the device [23].

1. Securely lock mobile device with a PIN, pattern or password and set up a lock on the SIM card as well.
2. Install applications from only trusted app stores and toggle off the installation of application from "unknown sources" option in the security application settings menu.
3. Do not jailbreak, root or meddle with the mobile device software to evade its controls.
4. Remember to logout from websites initially signed in to transact business, shopping, or emailing services that requires user account.
5. Turn off Wi-Fi and Bluetooth when not in use. Also, do not transact business or shop online via free unsecured public Wi-Fi network.
6. Don't click on links or open attachments in emails or text messages from unknown and unsolicited sources.
7. Install mobile security software such as antivirus, spam filters and antispyware to safely protect the mobile device from the looming dangers of malware and spyware.

C. COUNTERMEASURES

A Countermeasure is an act, practice, or technique taken to neutralize the effect of a dangerous action. Generally used in Intrusion Prevention System (IPS), a "countermeasure is a defensive technology method used to prevent an exploit from successfully occurring once a threat has been detected" [24]. For maximum mobile security, the following countermeasures; which are also defense mechanisms should be adhered to. These include: countermeasures against misplaced or theft of mobile devices, countermeasures against malware infection and countermeasures against leakage of sensitive information [25]. These countermeasures are required to be proactive (i.e. putting up the necessary security measures in readiness for the risky action rather than waiting for the occurrence of the menace before acting.) or must be swift in response (i.e. the rapidness in reacting to a situation. In the occurrence of stolen phone, the victim must immediately go online and activate the anti-theft app or location tracking app installed on the phone). Some of the correct proactive and swift precautions may include:

a) Setting up a strong screen lock password to restrict unauthorized access [26].
b) Installation of Anti-theft and Lock Screen Protection Applications such as Lookout, Prey, Android Device Manager, Find My iPhone, Cerberus, etc. to locate misplaced or stolen device [27] [28].
c) Attachment of Owner's Information and activation of "the intelligent assistant" Siri on iPhone to assist in the returning of the device by an honest person who finds a misplaced device [29].
d) Keeping safely the smartphone's unique numbers: IMEI, serial number and model number for tracking and identification [30].

e) Installation of antivirus or anti-malware application to scan the device and fish out duplicitous software that may be inadvertently downloaded and installed on the handset.
f) Being cautious of repackaged and fake applications that mimic the original but are more likely to be malware or trojanized [31] [32]. A recent fake app, supposedly to be an antivirus, was "Virus Shield" misled a lot of users due to its professional appearance [33] and Flappy Bird; a favorite android game was feigned, trojanized and introduced to the app stores [34].
g) Patronizing the trusted app stores over third-party app stores [35].
h) Cautiously reading and comprehending app permissions, terms and conditions, end users license agreement and user's reviews and ratings before down-loading any app. [36].
i) Patronizing paid applications over supposedly free applications. Free applications appear harmless, but it could be a source of danger to user's privacy [37]. The ancient adage that "there's no such thing as a free lunch" seem to hold an element of truth. "If you are not paying for it, you're not the customer; you're the product being sold" [38]. Patronizing paid applications may reduce the lurking attack on user's information

III. RESEARCH METHODOLOGY

The research design used was both Quantitative and Qualitative Research inclined, which commenced by appraising related works and literature from journals, books, website, and reports. The quantitative phase was used in the data collection method, i.e. the use of questionnaire. The qualitative aspect was concerned with the subjective evaluation of respondent opinions to gain an essential understanding of the subject researched on.

The target population for this research was users of android and iOS powered smartphones within the Tarkwa-Nsuaem Municipal Assembly of the Western Region, Ghana.

Purposive or deliberate convenient sampling procedure was used for the research. This type of sampling technique involves a deliberate selection of particular components of the total population to represent the whole population, and inference and judgement made characterizes the whole. It is tagged convenient due to the ease of access during the selection.

The sample was 809 respondents of the 31,890 population who owned a mobile phone [39]. The sample was arrived at and adjusted from online sample size calculator with confidence level of 95% [40].

Data gathered from respondents was analyzed by using Microsoft Office Excel 2010. Pie charts and Bar graphs were used to graphically represent the data for easy judgement.

IV. RESULT ANALYSIS

FIGURE 1: BRAND OF SMARTPHONES USED BY RESPONDENTS

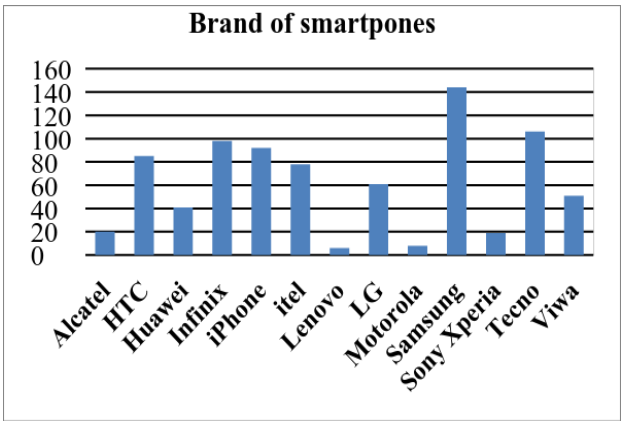


FIGURE 2: OPERATING SYSTEMS OF SMARTPHONES USED BY RESPONDENTS

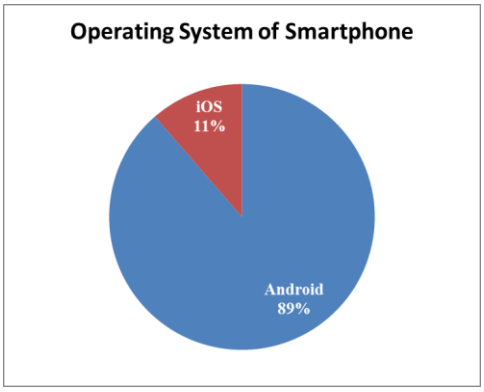


FIGURE 3: LEVEL OF IMPORTANCE OF INFORMATION ON RESPONDENT'S MOBILE DEVICE

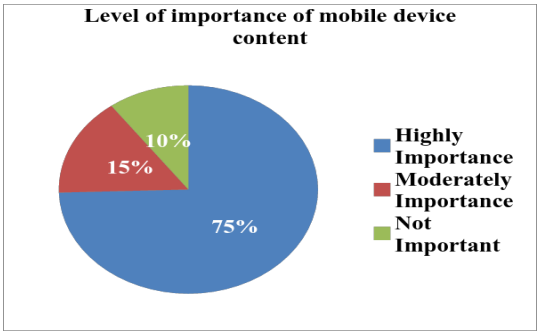


FIGURE 4: SCREEN LOCK METHODS USED BY RESPONDENTS

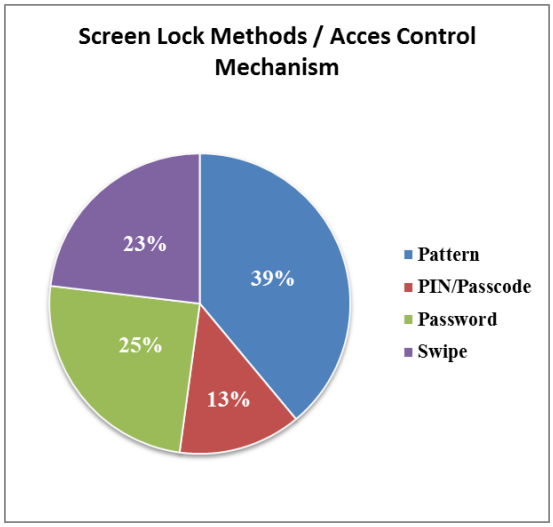


FIGURE 5: SIM CARD LOCK SET UP BY RESPONDENTS

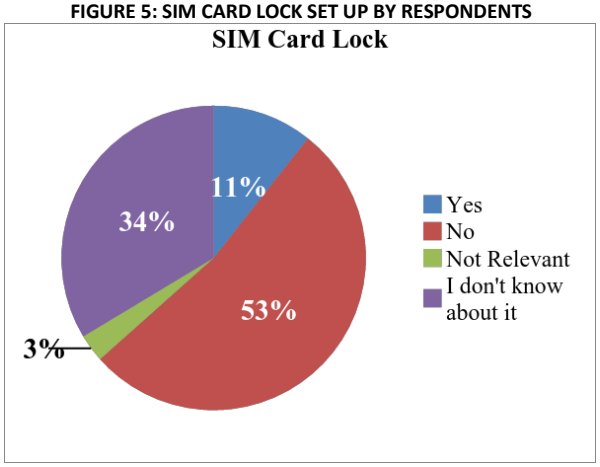


FIGURE 6: INSTALLATION OF ANTIVIRUS ON RESPONDENTS' SMARTPHONE

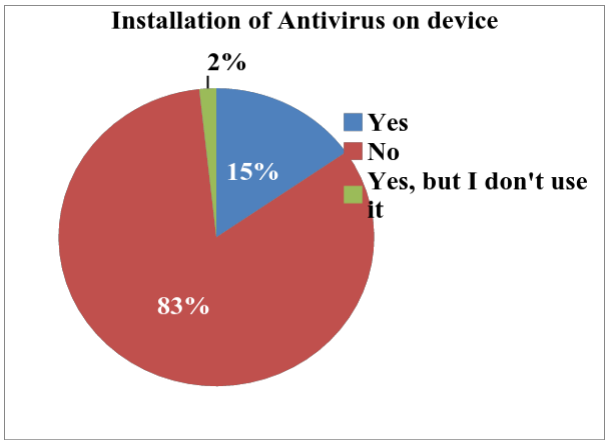


FIGURE 7: INSTALLATION OF APPS FROM UNKNOWN SOURCES

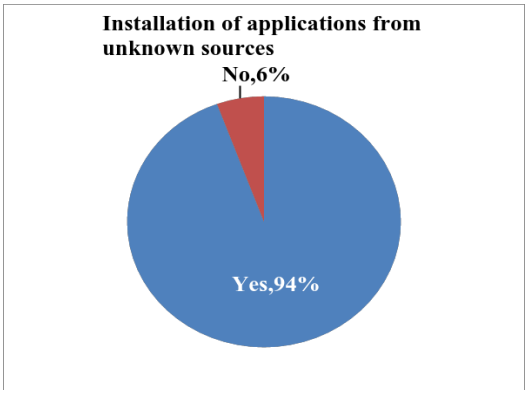


FIGURE 8: RESPONDENTS ATTITUDE TOWARDS APPLICATION PERMISSIONS AND PRIVACY POLICY

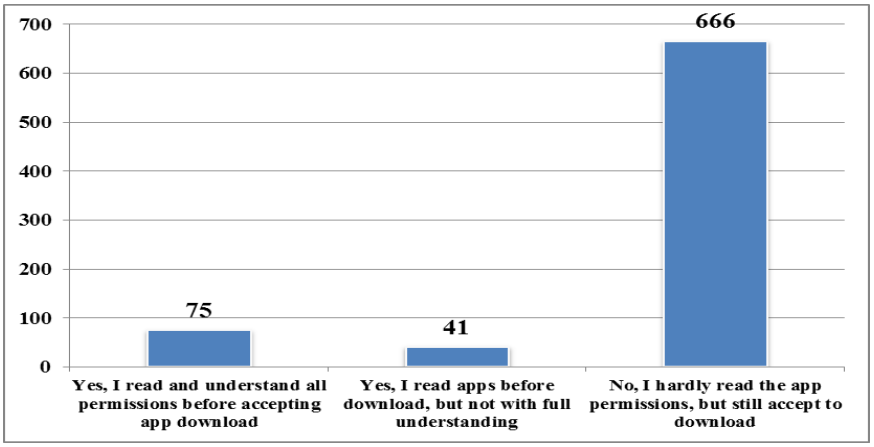


FIGURE 9: INSTALLATION OF ANTI-THEFT OR LOCATING TRACKING APPLICATION

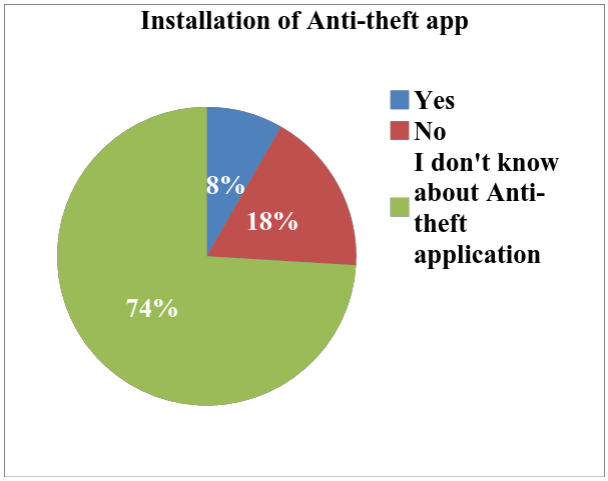
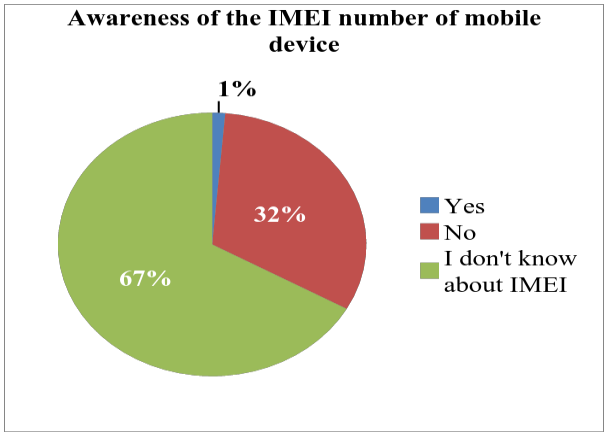


FIGURE 10: IMEI NUMBER WRITTEN DOWN BY RESPONDENTS



V. RESULT & DISCUSSION

The findings of this research were targeted at evaluating the security culture and consciousness of mobile security among smartphones users. The summary of the research is in answering the proposed research questions:

Research Question 1:

What is the level of importance that user's accord to the content or information stored of their smartphone?

Respondents scored that the content or information on their mobile device is of high importance and losing it will be ruinous (Figure 3). This feeling could be a reason for the greater number of respondents recorded for the use of access control mechanism to protect unauthorized entry into the device (Figure 4). Also, respondents had sensitive personal data on their device, alongside the contact list, other information such as ATM and email passwords, Bank Account Numbers, House Numbers, Index Numbers, Passport Numbers, Social Security Numbers, Staff/Employee and Voter IDs.

Research Question 2:

Do smartphone users put in place authentication mechanisms or access control methods to restrict unauthorized access to their device?

It was discovered that most respondents had an access control or authentication mechanism set up, with pattern drawing gaining the prevalence. However, locking of SIM Card was not encouraging (Figure 5). The screen could be locked securely, but the content of the SIM is not protected as just simply removing and inserting into another mobile device will expose all the useful data it contains.

Research Question 3:

Do smartphone users fully read and understand permissions that accompany mobile applications downloaded from the various mobile app stores?

Mobile applications in android has the capacity to read the phone contacts, call logs, content of device's memory, text messages and can determine the approximate or precise location of users of smartphone. Others can directly call phone numbers, send messages, and record audio without the user's intervention and explicit confirmation. But this activity of mobile application is made possible by the user's acceptance of permission during the download and installation of the

applications. Analysis from Figure 8 revealed that majority of the users of smartphones, during the download and installation from the app stores do not thoroughly read and fully understand the permissions but are quick to accept to host the application on their devices. This exposes the low, if not totally slack in security culture and practices on the part of the users.

Research Question 4:

Do smartphone users install security software on their device to detect, protect and offset any security threat?

Figure 6 shows users attitude towards the installation and running of antivirus application as security software to detect and protect their device from malware and any security threat. The figures portray that the use of antivirus among respondents was on the lower side. Particularly when majority of the respondent have toggled on the installation of applications from unknown source (Figure 7), an antivirus would have been a good option to scan for malware and ward off potential harmful applications.

Research Question 5:

Do smartphone users know the availability of anti-theft applications and location tracking services that can be used to trail or remotely wipe their confidential data on their device in case phone lost or theft?

The use of anti-theft applications among respondents of this research also registered low patronage. (Figures 9 and 10) painted the true portrait of respondent's awareness of the usefulness of Siri on iPhones, Android Device Manager, Anti-theft app and IMEI number. The ignorance of respondents stood at 55% did not know about Siri, 60% about Android Device Manager, 74% about anti-theft application and 67% about IMEI. Therefore, in the unfortunate event of misplacing of the smartphone or it being stolen, users are unable track the mobile device.

VI. CONCLUSION

It could be logically concluded that;

- Users treasure the content of their smartphone but lack the security attitude in protecting such delicate information. The deficiency in security awareness reflects respondent's hesitancy to neither install security applications such as antivirus and anti-theft app nor make use of android device manager and siri on their android and iPhone respectively.
- Though respondent's statistics on strong access control method was positively encouraging, there still remains an unsecured hole that is a threat to mobile security. Failing to set up SIM card lock, allowing installation from unknown sources and leaving Bluetooth on and in discoverable (visible) mode still make the device an easy prey to ruthless attackers.
- User's lack of security awareness was also seen in respondent's reluctance to read thoroughly the mobile application permissions and privacy policies that accompany applications.

VII. RECOMMENDATIONS

Based on research findings, the authors would like to recommend the following to smartphone users: -

- Smartphone users should be cautious and wakeful about mobile application permissions and the information the application would want to access before granting permission during installation.
- Smartphones manufacturers, telecommunication service providers as well as the mobile security agencies should enhance security awareness creation to inform users on the various security threats, as well as the security measures and defensive mechanisms needful for maximum protection of the mobile handset and its content against data loss.
- Smartphone users should take advantage of the value of mobile antivirus and anti-theft applications to counter potential mobile malwares and spywares as well locate, protect and restrict access to misplaced or stolen mobile handset.

VIII. SCOPE FOR FURTHER RESEARCH

It is hereby suggested that further studies and a nationwide survey be carried out on this research to ascertain the mobile security attitude of smartphone users as the usage of the device swells exponentially on the national or international level.

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TECHNOLOGY ADOPTION FOR E-FILING: PERCEPTIONS AND INTENTIONS OF TAXPAYERS IN INDIA

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ABSTRACT

The concept and practice of filing and payment of taxes electronically as an e-government service has been introduced in many countries making it possible for millions of taxpayers to file their tax returns conveniently. Despite the growth in the number of assessees who have adopted this system in India, there still remains a vast segment who are not yet ready to adopt tax compliance through e-filing system on their own but prefer to depend on tax consultants. The present paper postulates that unless behavioural aspects of adoption of the e-filing system are thoroughly explored into and the system designed accordingly, inclusion of all assessees within the system will be far flung dream. This study therefore aims at investigating the behavioural aspects which influence the adoption intentions of e-filing system in India based on Technology Adoption Model [TAM] and Theory of Planned Behaviour [TPB]. Structural Equation Modelling [SEM] has been used to explore interrelationships between the variables which affect intentions to adopt e-filing system.

KEYWORDS

electronic tax filing, compliance, technology adoption model, theory of planned behaviour, diffusion of innovation.

JEL CLASSIFICATION

H24, H29, H30.

I. INTRODUCTION

When Adam Smith proposed the 'canon of convenience' in his book Wealth of Nations in 1756, it was probably beyond his wildest dreams that a diligent taxpayer could comply with declaration and payment of taxes from the comfort of his home by clicking a few keys. Tax payers can reap multiple conveniences like 'anytime' 'anywhere' filing, correction of errors and saving changes in return forms several times before the final submission of ITR form instant acknowledgement of receipt of returns filed, getting information on current status of verification processing and refunds and reduction in documents handling cost and space. Azmi and Kamarulzaman (2010) states 'It is clear that e-filing can reduce errors in taxpayer self-assessment and the processing of tax returns by revenue authorities; it can also provide increased convenience and flexibility for the taxpayer. Another important advantage identified by Coolidge and Yılmaz (2014) is 'the reduction in face-to-face interactions between taxpayers and tax officials, which should reduce opportunities for corruption'

Filing and payment of income taxes as an e-government service has now been introduced in many countries making it convenient for millions of taxpayers to file their tax returns electronically to the tax authorities without handling bundles of papers or depend on tax consultants who often charge substantial amounts to file taxes. The concept and practice of E-filing is however relatively new, just spanning over less than three decades, when compared to the centuries during which tax was paid and collected manually. It was the Inland Revenue Service in USA which could get only 25,000 returns when the system of electronic filing was introduced in 1986. Australia tried to emulate such practice in 1987 by launching the Electronic Lodgment Service in 1987. However, due to certain glitches, the e-filing system could start rolling only in 1999. United Kingdom started with Electronic lodgment of services in 1997 and the final e-filing system came into form with the internet based Self- Assessment in 2000.

India started rather late compared to the other countries. The website of the Income Tax Department was launched only in 2003. Subsequently, the e-filing portal came into being in 2006 for providing an avenue to file their returns on 'anytime' and 'anywhere' basis. However, after the late start, the pace of adoption of e-filing picked up substantially as evidenced from the statistics given below. From assessment year 2007 to 2008, e-filing of income tax return was made mandatory for all companies. For all other categories of income tax assessees, which include salaried individuals, the use of income tax e-filing service continues to be voluntary. However, after nearly a decade, there exist certain problems in using these systems, specially by individual assessees.

II. STATEMENT OF THE PROBLEM

The fact that a miniscule percentage of the Indian population pay income taxes is a thorn in the flesh of the public exchequer in India. Only 5.16 crore (4%) among 120 crore Indians, filed Income Tax returns in 2015-16. An even smaller number, only 1.3 crore individuals, in 2014-15, paid income tax. Around 1.7 crore or over 54 per cent of all tax payers who filed returns, had zero tax liability. Due to problems of excluding a large numbers of Indians into the direct tax net, the government has been forced to mobilise revenue through indirect tax collection. In 2015-16, direct taxes contributed only 51 per cent of the tax revenue, lower than in the government's expectations and the lowest since 2007-08. In spite of numerous conveniences provided to taxpayers through introduction of e-filing facilities, such as speedy filing, reducing processing errors, quick and direct deposit refunds, reducing uncertainties of tax filing, a large number of assessees are yet to adopt e-filing systems. Though there is growth in the proportion of assessees who are adopting this system, there still remains a vast segment (nearly 34%) who are not yet ready to adopt tax compliance through electronic systems. The table given below reveals that the annual growth rate of e-filing current hovers around 26%.

TABLE 1: TOTAL INCOME TAX ASSESSEES AND ASSESSEES USING E-FILING IN INDIA

Financial Year	Total Number of Assessees	Total Number of E-Filing	Percentage of E-Filing to total no. of Assessees	Annual % Growth Rate of E-filing
2007-2008	33662801	2169367	6.44%	
2008-2009	32650627	4830122	14.79%	122.67
2009-2010	34085426	5073977	14.89%	5.05
2010-2011	33739124	9050242	26.82%	78.37
2011-2012	43637486	16433684	37.66%	81.58
2012-2013	47267582	21486807	45.46%	30.43
2013-2014	52093324	29681794	56.98%	33.15
2014-2015	51673822	34173994	66.13%	15.13
2015-2016	56866690*	43343737	76.22%	26.83
2016-2017[up to 31-7-2016]	N.A.	18944706	___	____

*Source: The table has been compiled from data sourced from reports and websites of Income Tax Department, Central Board of Direct Taxes and Department of Revenue, Government of India and Centre for Monitoring of Indian Economy database. (Note: *2015-16 no of assessees figures are provisional).*

The percentage of assessees who use the e-filing system have gone up during the course of years. However, it has to be kept in mind that e-filing is mandatory for companies, but voluntary for individuals. It is worthwhile to mention here that in India, individuals having Income from salaries, income from one house property, income from other sources file their returns in form ITR 1 and individuals and HUFs not having income from business or profession, but having capital gains file their return in ITR 2. For Assessment year 2016-17 ITR 2A has been introduced for Individuals and HUFs not having Income from business or profession and capital gains and who do not hold foreign assets.

A large number of individual assessees do not file their returns electronically. This is evident from the following table:

TABLE 2: PERCENTAGE OF INDIVIDUALS WHO FILE RETURNS ELECTRONICALLY

Financial Year	Total Individual assessees	Cumulative ITR-I & ITR-II E-Filing	% of E-Filing to Number of assessees
2009-2010	30101300	1616928	5.37%
2010-2011	31384100	3023900	9.64%
2011-2012	31035400	6212660	20.01%
2012-2013	33189600	8650876	26.06%
2013-2014	34849660	13889866	39.85%
2014-2016	30407330	16625556	54.67%
2015-2016	34730440	20182765	58.11%
2016-2017 [up to 31-7-2017]	N.A.	12589357	N.A.

Source: The table has been compiled from data sourced from reports and websites of Income Tax Department, Central Board of Direct Taxes Government of India and Centre for Monitoring of Indian Economy database.

The table shows that the percentage of individual assessees who use e-filing has increased, but nearly half of the assessees are still outside the purview of this system. Though this is laudable, it is a hard truth that the majority of individual tax payers who have used e- filing systems have done it through tax consultants and have not ventured to file returns themselves. This defeats the basic canon of 'convenience' in taxation as e-filing systems are made user friendly of the taxpayers themselves. The question naturally emerges that why are these people shying out of the system when the avowed objective of the system is to gear up more convenience for the tax payers. Is there a hesitation or fear to use the system? The *Diffusion of Innovation (DOI) Theory* advanced by Everett Rogers in 1962 describe the patterns of adoption of technology, explaining the mechanism of the adoption and further predicting whether and how a new invention or innovation will be successful. Rogers, (2003**)** stated that the stages through which a technological innovation passes involves certain steps which follow a sequence in a time-ordered manner. First an individual acquires knowledge of the existence of the innovation, understands it's functioning and seeks information on how to use it correctly and then may develop a favorable or non-favorable attitude to the use of technology/innovation and finally decide to adopt or reject the innovation.

In India, the e-filing system has been introduced and is continuing without assessing whether the taxpayers are aware of the system, whether they are adopting to the system on their own or are they dependent on the tax consultants, and whether they are finding the technological aspects of the system to be convenient or risky. Unless the behavioral aspects of adoption of the e-filing system are thoroughly explored into and the system designed accordingly, inclusion of all assessees within the system will be a far flung dream.

This study therefore aims at investigating into the behavioral aspects which influence the adoption of e- filing in India.

III. THEORETICAL FOUNDATIONS AND REVIEW OF LITERATURE

The study is based basically on two models, Technology Adoption Model (TAM) and Theory of Planned Behaviour (TPB). TAM was advanced by Davis in 1989 and essentially is an adaption of Theory of Reasoned Action (TRA) which was proposed by Martin Fishbein together with Icek Ajzen in 1980. TAM has been continuously studied and upgraded to TAM 2 by Venkatesh & Davis (2000) and Venkatesh (2000) and the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003). TAM has been recognized by researchers as a useful theoretical model to comprehend and explicate s users' behavior to adopt and use an information system (IS). According to this model, two factors, i.e., Perceived usefulness (PU) and perceived ease of use (PEoU) influence an individual's intention to use a new technology or system. PU is defined as the degree that a person trusts that adoption of a specific system will augment his work accomplishment. Research works by Hasim (2008), Jahangir and Begum (2008) showed that perceived usefulness has a direct influence on behavioral intention to adapt online shopping, web-based training, electronic banking, e-commerce, and e-government services like e-filing. PEoU refers to extent of easiness that an individual feel to operate the new technology or information system. According to Davis (1989) perceived ease of use is an individual's assessment of the extent to which interaction with a specific information system or technology is free of mental effort. According to TAM, perceived usefulness is also influenced by perceived ease of use because, other factors being same, the easier the system is to use, and the more useful it can be. In addition, TAM has been used many studies to explain the relationship between the usage perception and information technology. These two main TAM variables have been found to be highly related to adoption of e-filing systems in several countries and have constituted the base for some researches carried out with regard to e-filing systems. Researchers such as Agarwal and Prasad (1999), Jackson et.al (1997), Wang (2002), Azmi and Bee (2010) have provided evidence of the significant effect of perceived of usefulness and perceived ease of use on behavioral intention of users. Fu, Farn and Chao [2006] using integrated theory of TAM and TPB, have discussed the effect of perceived ease of use, perceived usefulness, subjective norms, self-efficacy, resource facilitating conditions, and technology facilitating conditions on the behavioural intention to use e-filing system in Taiwan. Boone, (2012) confirmed that with regard to perceived ease of use, the more that an individual feel that a particular filing method (between the e-filing and manual method) is easier to use, the more likely they are to use that particular filing method to file their state tax return. E-filing system offers many conveniences to assessees, but all depend on the motivation to accept and use the electronic systems.

The Theory of Planned Behaviour (TPB) was proposed by Icek Ajzen in 1985 and 1991. The theory was also developed from the Theory of Reasoned Action. This is a theory which connects attitudes and behavior. The theory states that the attitude, subjective norm and perceived behavioral control, together shape an individual's behavioral intentions. Attitude and behavioral intentions are often based on 'Perception of Credibility' and security of the system.

Udo (2001) stated 'Perceived Credibility' to be the quality of the e-filing system being trusted by the users in terms of ability to protect the user's personal information and security. Intention to adopt the e-filing application depends on perceived credibility of tax e-filing systems since it involves the disclosure of personal

financial information. Wang [2002] found that 'perceived credibility' variable have a strong influence on behavioural intention than traditional 'perceived usefulness' variable. Ambali (2009) found that a large number of the taxpayers are reluctant to use this alternative medium of filing their tax returns because the security violations in internet-based systems. Schupp, Carter and McBride [2010] examined the effects of perceived risk, online trust, and optimism bias ion intention to use e-filing system and concluded that, the citizens' acceptance of e-filing is significantly influenced by their trust on the e-filing provider.

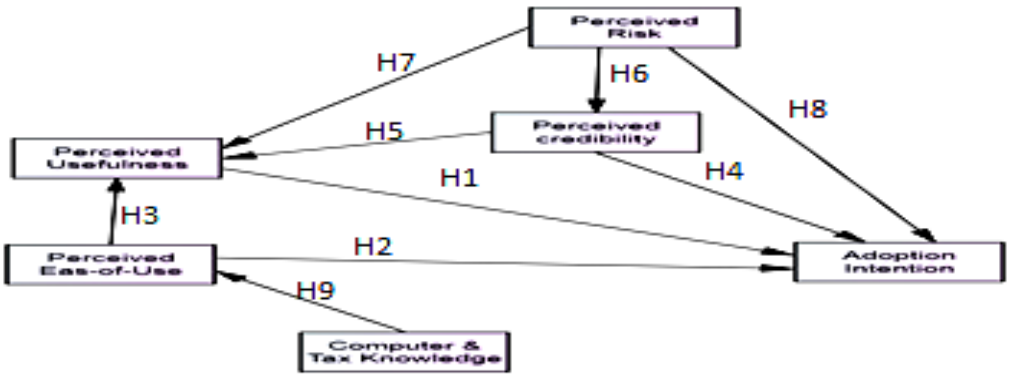
Intentions for adoption of e- filing systems also depend on the perception of security of the system. According to Valacich and Schneider (2012), 'system security is a precaution to keep the system from unauthorized access and use while perceived information security is defined as the subjective probability with which consumers believe that their personal information will not be viewed, stored or manipulated during transit or storage by inappropriate parties, in a manner consistent with their confident expectations'. Compliance efforts through e- filing may be hindered if assessees perceive that the information about the bank details provided in the returns may be used for purposes not conducive to the users' interests. Belanger *et al*. (2002) stated that the biggest challenges presented for trusting electronic information transfers were related to privacy and security issues. Ambali (2009) stated that when assessees use e-filing, they are concerned about their security information required in the system. Iqbal and Bagga (2010) also pointed out that there is personal sensitivity on individual data when a taxpayer files the information. Kamarulzaman and Azmi [2010] highlighted the importance of perceived risk to the adoption of e-filing system and attempted to provide insights into performance risk and revealed that perceived ease of use influences the performance risk of the e-filing system. Moorty et.al. [2014] argued that perceived ease of use and perceived usefulness influences the e-filing adoption intentions more than perceived credibility and security. Apostolou, Dorminey and Schaupp [2016] attempted to understand the impact of one's trust and commitment towards e-file and in the tax software and showed that the antecedents of intention to e-file include trust in tax software, affective commitment, calculative commitment, and quality of alternatives.

Intentions to adopt e-filing also depend on the knowledge of the user of computer and internet systems and knowledge about tax computations. Kamarulzaman (2010) found that 'a feeling of increased anxiety and stress due to lack of experience or comfort with using technology or feeling threatened by technology could prevent a customer from being inclined to change to a technology delivered service'. Wang [2002] suggested that users who have higher computer self-efficacy are likely to have more positive usefulness and ease of use beliefs. Carter and Schaupp [2008] suggests that web-specific self-efficacy have significant impact on intention to e-file. They also found that effort expectancy and previous use of e-file system did not have direct impact on ones' intention to use e-file system but on the contrary, those who e-filed last year were less likely to e-file in the future. Brahmbhatta [2012] argued that lack of experience and knowledge of e-filing and lack of digital certificate/ PIN, technology obtuse, and inability to successfully e-file while attempted, are the reason for not using e-filing. Mustapha and Obid [2014] examined the influence of technology characteristics i.e., ease of use, usefulness and personal innovativeness on an online tax system and showed that technology characteristic has a significant positive relationship on online tax system adoption.

IV. OBJECTIVE OF THE STUDY AND RESEARCH MODEL

The primary objective of this study is to find out how the variables such as Perceived Usefulness, Perceived Ease of Use, Perceived Credibility, Perceived Risk, Technical knowledge influence the intention to adopt e- filing systems. It is hypothesized on the basis of earlier studies and pilot surveys carried out that e-filing adoption intention of an individual taxpayer gets influenced by perceived risk, perceived usefulness, perceived ease-of-use, perceived credibility, and computer and tax knowledge. The proposed model is given below:

FIGURE 1: PROPOSED RESEARCH MODEL



The specific hypotheses related to the diagram are listed below:

H1: Perceived Usefulness (PU) of e-filing will have a positive effect on the Adoption Intention (AI) of e-filing.
H2: Perceived Ease of Use (PEoU) of e-filing will have a positive effect on the Adoption Intention of e-filing.
H3: Perceived Ease of Use of e-filing will have a positive effect on the Perceived Usefulness.
H4: Perceived Credibility (PC) will have a positive effect on the Perceived Usefulness of e-filing
H5: Perceived Credibility will have a positive effect on the Adoption Intention of e-filing.
H6: Perceived Risk (PR)will have a negative effect on Perceived Credibility
H7: Perceived Risk will have a negative effect on Perceived Usefulness
H8: Perceived Risk will have a negative effect on Adoption Intention of e-filing
H9: Computer and Tax knowledge (C&TK) will have a positive effect on Perceived Ease of Use

V. RESEARCH METHODS

The sample for this study was individual income tax assessees who filed returns in Income Tax Return forms ITR 1 and ITR 2 at least once in the Assessment Years 2013-14, 2014-15 and 2015-16 himself /herself. ITR 1 is used by individual assessees who have income from Salaries, one house property and other sources. ITR 2 is used by individual assessees who have income from Salaries, one house property and other sources and income from short term and long term capital gains. Assessees using ITR 2A was not considered for determining the population because it was introduced only in the Assessment Year 2016-17. Initially responses were sought from more than 1000 individuals working in different offices, schools, colleges and universities in Siliguri, Darjeeling, Gangtok, Jalpaiguri and Coochbehar as to whether they filed their income tax returns themselves or through consultants. Only 66 individuals replied that they filed their tax returns themselves electronically. Snowball sampling was used to reach other respondents through the initial respondents who had filed e- returns. The total respondents were 236 to whom questionnaires were administered, out of whom 203 were usable. The final sample size stood at 203.

35 variables were used to determine the latent variables shown in the proposed research model. The 35 observable variables for this study were measured using a list of 35 items adapted and developed from past studies, multiple pilot surveys and discussions with experts in income tax matters. All the observable variables were measured using a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Structured Equation Modelling [SEM] was used to evaluate how well the proposed model fits the collected data. A SEM represents causal relationships among measured and latent variables both graphically and as a set of linear equations, that define the interactions among the variables. In the graphical representation of a SEM, which has been used in this study a variable with an arrow pointing to it is termed an endogenous variable, which is similar to a dependent variable in regression analysis. An endogenous variable is causally affected by the state of at least one other variable in the model. A variable without an arrow pointing to it is termed an exogenous variable, which is similar to an independent variable in regression analysis. The measurement items were refined and validated using a reliability test. They were then re-validated using confirmatory factor analysis (CFA), with the help of a structural equation modeling (SEM) software, AMOS 20.0. SEM was used to evaluate how well the proposed conceptual model of e-filing adoption, containing observed indicators and hypothetical constructs, explains or fits the collected data.

VI. FINDINGS OF THE STUDY

EXPLORATORY FACTOR ANALYSIS

To test whether the sample undertaken for the study was adequate for the further analysis and fitness of the statistical data collected we conducted Kaiser-Meyer Oklin [KMO] test. The result was indicative that further analysis can be performed with KMO=.821 which is above the threshold value of .60. In order to check the existence of inter correlation Bartlett's Test of sphericity was carried out. The Chi-square value of 5925.779 with DF=300 and Sig value=0.00 were adequate to consider that factor analysis is relevant to identify the influencing factors in this analysis.

TABLE 3: EIGEN VALUES AND TOTAL VARIANCE EXPLAINED

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.508	34.03	34.03	3.767	15.069	15.069
2	4.834	19.337	53.367	7.163	28.654	43.723
3	2.12	8.481	61.848	2.955	11.819	55.542
4	1.872	7.489	69.338	1.939	7.755	63.297
5	1.494	5.975	75.312	1.144	4.577	67.874
6	1.114	4.454	79.767	1.589	6.355	74.229

The figures in the table shows that items were loaded onto their factors as predicted by us with the Eigen values above the threshold of 1 and the overall variance explained is 79.767% which further validates that the data was appropriate for further analysis.

Maximum Likelihood estimation with promax rotation was performed to maximise the obtain values of the criterion to predict the variables and to investigate the fundamental relationships between the items and the theoretically defined constructs. We first tested the individual item reliability by looking at their loadings to their related constructs and their cross loadings with other constructs. Eight items with loadings below the standard and acceptable value of .50 were dropped from the scale because of weak loading on their factor. All other items were found to have high loading on their specific construct which indicates the construct validity [Table 5]. Additionally, internal consistency of sub construct was assessed using Cronbach's alpha [Table 4 below]. For all the constructs the value of alpha was above the acceptable value of.70 which strongly provides the evidence that the constructs demonstrate good measurement properties. The item –total correlation for all the constructs were examined and the correlation pattern shows that an item posited to form the given sub-construct has stronger correlation with the intended construct than other constructs. This occurrence provides evidence of discriminant and convergent validity.

TABLE 4: DESCRIPTIVE STATISTICS

Construct	Items	Mean	Item Mean	SD	Cronbach's Alpha
AI	AI1	4.42	4.34	0.495	0.75
	AI2	4.58		0.495	
	AI3	4.5		0.592	
	AI4	4.29		0.562	
	AI5	3.91		0.585	
C&TK	C&TK1	4.48	4.247	0.501	0.813
	C&TK2	4.44		0.497	
	C&TK3	4.11		0.612	
	C&TK4	4.14		0.555	
	C&TK5	4.07		0.7	
PC	PC1	4.04	3.994	0.659	0.728
	PC2	4.11		0.327	
	PC3	4.24		0.459	
	PC4	4.11		0.561	
	PC5	3.48		0.706	
PEoU	PEoU1	3.65	4.246	0.995	0.711
	PEoU2	4.09		0.577	
	PEoU3	3.95		0.595	
	PEoU4	4.53		0.5	
	PEoU5	4.28		0.686	
	PEoU6	4.66		0.476	
	PEoU7	4.6		0.557	
PR	PR1	4.25	3.479	0.849	0.786
	PR2	4.29		0.894	
	PR3	3.97		0.744	
	PR4	2.69		1.167	
	PR5	2.63		1.052	
	PR6	2.77		1.099	
	PR7	3.76		1.166	
PU	PU1	4.68	4.488	0.468	0.765
	PU2	4.62		0.486	
	PU3	4.33		0.471	
	PU4	4.46		0.5	
	PU5	4.49		0.501	
	PU6	4.34		0.507	

TABLE 5: FACTOR LOADINGS

Pattern Matrix[a]						
	Factor					
	1	2	3	4	5	6
AI2	0.975					
AI5	0.962					
AI3	0.954					
AI1	0.942					
AI4	0.746					
PR4		0.997				
PR6		0.991				
PR7		0.926				
PR3		0.866				
PR2		0.804				
CTK1			0.937			
CTK2			0.849			
CTK5			0.732			
CTK4			0.571			
PC1				0.846		
PC2				0.821		
PC3				0.786		
PU1					0.984	
PU2					0.835	
PU5					0.624	
PU3					0.578	
PU6					0.526	
PEU1						0.973
PEU2						0.93
PEU3						0.826
PEU4						0.748
PEU7						0.536

Confirmatory Factor Analysis [CFA] was performed to confirm the exploratory factor model and to evaluate how well the proposed model fits the sample data collected for the study and to estimate the proposed structural model. CFA is basically a SEM technique which is used to determine the goodness of fit between a hypothesised model and the sample data. In order to examine the proposed structural model a set of fit indices were estimated and then we proceed to examine the path coefficients of the structural model. Among the fit indices estimated Goodness of Fit Index [GFI], Adjusted Goodness of Fit Index [AGFI], Comparative Fit Index [CFI] was used to evaluate how well the proposed model fits the sample data collected and Root Mean Square of Error Approximation [RMSEA] to measure the discrepancy per degree of freedom. The standard threshold value for GFI should be greater than or equal to .90 [Hoyle 1995], for AGFI it should be greater than or equal to .08 [Chin 1995], for CFI which is one of the stable and robust fit indices it should be greater than or equal to .90 [Hoyle 1995] and an RMSEA value between .08 to .10 indicates a mediocre fit and that below .08 shows a very good fit [Brown and Cudeck 1993]. AMOS 20.0 statistical package was used to perform confirmatory factor analysis in this study.

STRUCTURAL EQUATION MODELLING RESULTS

The research model and the hypothesis present earlier was tested to examine the structural relationships between the constructs and the e-filing adoption intention [as shown in the figure-1] using Structural Equation Modelling [SEM] techniques. Table 6 and 7 shows the total number of variables in the initial model and the revised model respectively.

TABLE 6: VARIABLES COUNTS IN THE INITIAL MODEL

Total Number of variables in initial model:	Number of observed variables	Number of unobserved variables:
80	35	45

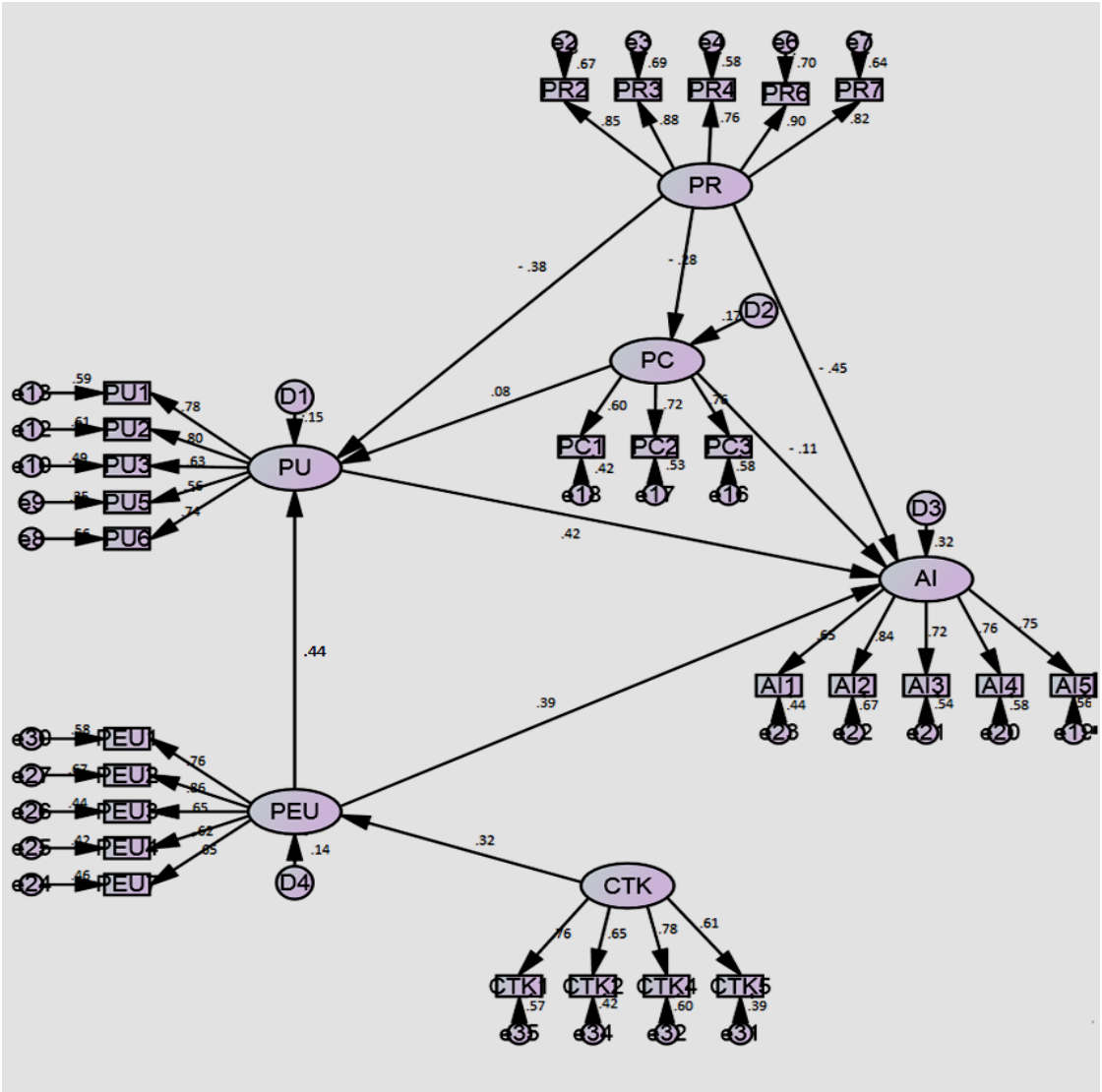
In the initial measurement model analysis, it was found that the, CHI-square [CMIN]=2304.61, P=0.000, DF=551, GFI=.841, CFI=.824, RMSEA=0.89 and CMIN/DF=4.18, were not up to the standard criterion and showed a low value fit, so we suggested for modification expecting a better model fit from the fit indices and to fit data in the model effectively. As stated before eight items with loadings below the standard and acceptable value of .50 were dropped from the scale because of weak loading on their factor. Therefore, the variable count in the revised model stands as below.

TABLE 7: VARIABLES COUNTS IN THE REVISED MODEL

Total Number of variables in revised model:	Number of observed variables	Number of unobserved variables:
64	27	37

The revised model [figure 2] showed a significant value of Chi-square [CMIN]=984.463, P=0.073, DF=341, GFI=.901, CFI=.918, RMSEA=.069, and CMIN/DF=2.89. In comparison with the initial analysis the new fit indices displayed a relatively better fit. The revised model is given below.

FIGURE 2: REVISED MODEL SHOWING PATH COEFFICIENTS



The path coefficient [figure 2] clearly indicates that seven out of nine hypotheses are in line with our predicted direction. The path coefficient of .42* between PU and AI [note: * indicates P<.001 and ** P<.005] supports our first hypothesis that PU has a positive significant influence on AI. Similarly, coefficients, .39* between PEoU and AI, .44* between PEoU and PU also supports our second and third hypothesis that there is positive significant relationship between PEoU and AI and PEoU and PU respectively. Further, path coefficients, -.28 ** between PR and PC, -.38* between PR and PU and -.45* between PR and AI supports our sixth, seventh and eighth hypothesis that PR negatively affects PC, PU, and AI respectively. The last hypothesis that CTK will have a positive effect in PEoU is also supported as the coefficient between CTK and PEoU is .44*. The only predicted paths that are not significant are between PC to AI and PC to PU with coefficients -.11 and .08 respectively so H4 and H5 were rejected. Perceived usefulness, perceived ease of use, and Perceived risk were found to have significant relationship with the e-filing adoption intention and they are important factors which influence the adoption intention which is consistence with the earlier research. Computer and tax knowledge also has an indirect influence on the adoption intention. However, perceived credibility has an insignificant impact on e-filing adoption intention and perceived usefulness so it cannot be considered important factor influencing e-filing adoption intention. In the table below the acceptance and rejection of the hypotheses are summarised.

TABLE 8: RESULTS OF HYPOTHESES TESTING

Hypotheses	Results
H1: Perceived Usefulness (PU) of e-filing will have a positive effect on the Adoption Intention (AI) of e-filing.	Accepted
H2: Perceived Ease of Use (PEoU) of e-filing will have a positive effect on the Adoption Intention of e-filing.	Accepted
H3: Perceived Ease of Use of e-filing will have a positive effect on the Perceived Usefulness.	Accepted
H4: Perceived Credibility (PC) will have a positive effect on the Perceived Usefulness of e-filing	Rejected
H5: Perceived Credibility will have a positive effect on the Adoption Intention of e-filing.	Rejected
H6: Perceived Risk (PR)will have a negative effect on Perceived Credibility	Accepted
H7: Perceived Risk will have a negative effect on Perceived Usefulness	Accepted
H8: Perceived Risk will have a negative effect on Adoption Intention of e-filing	Accepted
H9: Computer and Tax knowledge (C&TK) will have a positive effect on Perceived Ease of Use	Accepted

VII. CONCLUSIONS AND POLICY IMPLICATIONS

The findings of the study are in line with earlier studies described in section III of this paper. Perceived ease of use of electronic tax filing and perceived use of the system are related in the sense that the former has an effect on the latter and these two variables have a significant effect on the intention to adopt the e-, filing system. However, the risk perceived by assessees is to be taken into consideration as higher risk perceptions lower the perceptions of usefulness, creditability and ultimately deter the assessees in adopting the system. However, it is also important that the assessees have a certain level of digital and tax literacy so as to have ease in handling the system.

However, as stated before the e-filing system in India, has been introduced and is continuing without assessing whether the taxpayers are aware of the system, whether the users are finding ease in understanding and adopting the system, and whether they are finding the system to be convenient or risky. It has to be

emphasised that behavioural aspects of adoption of the e-filing system are to be thoroughly explored into and the system designed accordingly keeping in mind the maxims of Diffusion of Innovation (DOI) Theory advanced by Everett Rogers that first an individual should acquires knowledge of the existence of the innovation, then understands it's functioning and seeks information on how to use it correctly and then may develop a favourable or non-favourable attitude to the use of technology/innovation and finally decide to adopt or reject the innovation. Moreover, even if the tax payer uses the system through tax consultants, it surmises that the adoption is partial and dependent on the expertise of a third person. E- filing systems are generally implemented to bring the tax payer closer to the tax authorities by virtue of increasing convenience of the systems and the dependence of taxpayers on others defeats to a large extent the basic purpose of such systems.

The Directorate of Income Tax (Public Relations, Printing Publications & Official Language) has taken up laudable tasks in carrying out the advertisement campaign for the department in print, electronic media, outdoor publicity to bring awareness amongst taxpayers about income tax provisions and statutory timelines. The Directorate has undertaken activities relating to printing of Tax Payer Information Series in the form of booklets/brochures/ pamphlets pertaining to various tax related issues. It has been observed that the directorate publishes instructions for filling up ITR 1 and ITR 2 both in digital and print mode, but a large number of assessees who file returns electronically do not read them meticulously. The directorate also has come up with videos on the process of e- filing, but as observed many users are not aware of the existence of such videos though it is easily available on the e-filing site of the Income Tax department. Under such circumstances, the Income Tax department needs to launch extensive awareness and training programmes itself or in collaboration with universities and colleges so that assessees develop knowledge, skill and ease of use in adopting the system. If a large number of assessees still have to depend upon consultants to file returns, the costs of compliance increases and the efficacy of the objective of introduction of digital technology for increasing convenience for taxpayers remains unfulfilled to a large extent.

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DYNAMISM, THE MANTRA OF POST MODERNISM GURUS: FROM PETER DRUCKER TO STEVE JOBS

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ABSTRACT

The history of management extends to several thousand years back into the past. A number of monumental examples of development and use of management practices can be traced from history. Egyptians (5000 BC), Sumerian (3500 BC), Chinese (1000 BC), Greek (400 BC), Mayan and Roman civilizations have shown significant signs of the use of management practices. The application of management practices is as old as human race, but the documentation of its theories and conceptual framework started in eighteenth century. The systematic management thought voyage travelled through Classical era, Neo- Classical era and Modern era. Thinkers in each era focused on different perspectives. Classical theorists advocated the economic rationale, while the Neo classists kept the human element as the central figure. The modern thinkers kept the complex man view point as a focus of their management thoughts. In the last some decades of twentieth century the management thinkers supported the view of Dynamism in their theories. As the whole world became a global village, post modernism thinkers realized that organisations can't survive without being dynamic and innovative. This paper concentrates on the thinkers who advocated the concept of Dynamism in the post modern era of management. By considering the contributions of six pioneering thinkers (Peter Drucker, Tom Peters, Michael hammer, C.K. Prahalad, Peter Senge, Steve Jobs) the major thoughts that appeared after 1980s have been discussed. The first section of paper describes the brief history of management thought. The second section deals with six thinkers who proposed new ideas and really made a difference through their thinking in post modern era.

KEYWORDS

dynamism, post modernism, management, theory, organisation.

1. INTRODUCTION

Management thought has a vast historical background since the era of civilizations. The management theories that we investigate today didn't arise out of the blue, it took many years to evolve them. The application of management practices is as old as human race, but the documentation of its theories and conceptual frameworks began in late eighteenth century. According to Hodgetts and Altman[1] (1981), systematic management thought is a distinctly modern development and most of the systematic contemporary management thoughts are a late nineteenth and twentieth century phenomenon (cited by Sridhar).[2] The voyage of management itself is eclectic (Smith, 1994) and today's management is both a reflection of and a reaction to the past management theories (Hitt, et al., 1979)[3].

Some eminent thinkers systematically gave shape to their ideas with their proven studies. The era of classical theorists stressed on scientific principles to raise productivity, while the neo-classists tried to emphasize the human element in the organisations. Taylor, Fayol and Weber were the centre of attraction in Classical while Elton Mayo and Mary parker Follett grasped the attention in Neo classical era of management literature. As the management thinking was approaching towards the second half of twentieth century, many thinkers started giving their viewpoints by latticing up various concepts on how to manage people. This was the time when even the basic terms such as management, organisations were being described differently by different thinkers. This mushroom growth and explosion of a variety of theories made Harold Koontz call the intact position as "Management Theory Jungle' in 1961. A such times Modern Management Thought emerged where the thinkers tried to manage this theory jungle first by categorizing the theories under certain heads. These thinkers proposed four categories: Quantitative theory, Contingency Theory, System Theory and Operational Theory. The aim was to untangle the theory jungle and to make separate gardens for each theory. But the growth of theory jungle continued even after this categorization and this jungle became denser after 1990s.

A rich mixture of many new theories emerged in the Post Modernism era. Many new concepts emerged and old concepts got new meanings, but the concept on jungle has not ended up even today and it will not come to an end. The business environment will keep on changing, therefore management theories will always keep on evolving. The thinkers in this era gave their unique contributions, as many of the ideas don't fit in any particular school. The popular catchphrases in this period were MBO and knowledge workers (Peter Drucker), Quality Circles and Zero defects (Philip Crosby), reengineering and radical redesigning (Michael Hammer), Search for excellence (Tom Peters), learning Organisation (Peter Senge), Customer relationships and many more. The theorists stressed on different ideas, but a common ground that converge all the thinkers on one point was the idea of Dynamism. The contemporary era began when the entire world was turned into a global village. The techniques that worked for a day were becoming inapplicable next day. Thus the manager thinkers who rose up in this era were having a common theme, to be dynamic and innovative.

2. MAJOR SUPPORTERS OF DYNAMISM

a) Peter F. Drucker (1909-2005): Creator and Inventor of Modern Management

Peter F. Drucker has grasped an elevated position in the management literature. Having a multidisciplinary more than 60 years of varied experience in the fields of management, psychology, sociology, law, journalism[4], he gave multidisciplinary ideas. Most of the modern management theory has its premises on the thinking of Peter Drucker, therefore he is well known as 'Father of Modern Management Thinking.[5] He could foresee the upcoming challenges in business environment, many of them discussed in his book Management Challenges for 21st Century in 1999. He had the talent to express complex ideas in simple way. He stressed on the power of observation, creating connections and listening which can bring out astonishing results. Drucker could foresee the future which is depicted in many concepts. His philosophy has been summarized under following heads:

- **Innovation and creativity:** He stressed on being innovative and creative while managing the organisations and people. For him the definition of creativity was much wider. In a way he stood against the thinking of Max Weber who emphasized on bureaucratic type of organisations in scientific management era.
- **Dynamic organisations:** Organisations must be dynamic enough to incorporate changes in their systems. The business world is dynamic and organisations have to face change without any option. Thus static organizations can't survive for long term.

- **Knowledge worker concept:** He advocated that the workers are assets rather than liabilities for organisations. They are not only the cogs in machines, but a crucial component of organisation. They carry varied skills and calibers, they must be considered as knowledge workers. They need to be trusted and respected for their performance.
- **Unique Skills:** Drucker considered management as the most crucial organ in the entire organisational system, which has no functions of itself, but it exists through functions. Managers need unique skills to achieve objectives, vision and mission, organise tasks, motivate people and to manage social impacts of working. A manager must possess administrative skills, entrepreneurial skills, decision making, communication skills and managerial skills to manage the organisations well.
- **Objective setting:** Managers perform variety of functions, out of which objective setting is the most crucial. He categorised eight areas where he stressed that objective setting is essential: market standing, innovation, productivity, physical and financial resources, profitability, managerial performance and development, worker performance and attitude, public responsibility.
- **Balanced organisational structure:** Drucker' views were completely opposite to Weber's bureaucratic organisational structure idea. He emphasized on the adoption of a balanced structure which is both task as well as people oriented. The purpose should be to design such an organisational structure which is simple with least number of levels and where the goals can be attained in an organised way.
- **Young manager concentration:** The young managers should be trained well to make them successful future managers.
- **Federalism:** He suggested that the organisations should function as federal government and state governments do. He advocated the idea of centralized control in a decentralized structure. The top managers must be relieved from routine tasks to concentrate on crucial areas.
- **MBO:** He considered MBO as the philosophy of managing which requires a complete change in organisations. The technique aims at matching the individual goals with organisational goals. The process of setting objective should be made participative as far as possible.

Drucker taught gigantic concepts in simple terms. He taught upcoming generations of managers the importance of picking the best people, focusing on innovation and change, thinking being on customers' side, the need to understand their competitive advantages and to continue to update.

b) Tom Peters (November 7, 1942): Search for excellence

The place of Tom peters in management literature can be highlighted through the words of Warren Bennis "If Peter Drucker invented modern management; Tom Peters repainted it in Technicolor."[6] Peters focused on proposing easy and practical solutions to the business challenges and to improve the decision making skills of managers working at varied levels of organisations. He advocated that management role is not to look at the numbers or figures, rather aim must be to attain its vision through productive leadership. His contributions to the field of management are summed up here:

- **Search of Excellence**: Peters published an article 'Search for Excellence with Robert H. Waterman Jr in 1982. He selected forty three fortune companies which had shown excellent performance over last 20 years some of which were Mc Donald, Procter and Gamble, IBM etc. he studies that the business environment is ever evolving and how these excellent organisations perform successfully in this environment. He analysed how these organizations work successfully in the radically changed environment having new consumers and technologies. From his analysis he identified eight common areas which contribute towards the success of these companies: a bias for action, closeness with the customer to learn from him, autonomy and entrepreneurship, productivity, value driven management, stick to the knitting (doing what you know), lean and simple staff. He further gave views opposite to the thought of F.W. Taylor, as the focus of Taylor was only on task. Peters emphasised on the role of people and customers.
- **Dynamic Leadership**: The leaders can't remain static. Good leaders emphasize on enhancing productivity, but by moving hand in hand with people. He further added that most of leadership that is observed today is grey, dull and indistinct leadership. A leader shouldn't create followers, but future leaders.
- **7-S Framework:** He proposed a unique model known as Mc Kinsey 7S model, which can be a method of self assessment for the organisations. he considered Strategy, Structure, Systems as Hard S's and Staff, Style, Skills and Shared Values as Soft S's in his model.
- **Liberation management:** Tom Peters challenged the assumption of strict organisational structure. He supported the idea of being innovative and creative while managing the organisations. He advocated that the organisations come in direct contact with many internal and external forces, so the structure should be flexible and liberal enough to incorporate upcoming challenges. The new ideas from organisational members must be welcomed. When power and individual liberty move together in organisations, he called such system as liberation management.

Peters' ideas were considered as the most influential ideas of modern time. Fortune has tagged him with the status of 'Ur Guru' of management (guru of gurus) and economists called him Uber-guru.

c) C.K. Prahalad (1941-2010): Core Competency

Coimbatore Krishna Rao Prahalad a professor, researcher, an author, speaker, and prominent management consultant based in US[7]. Business Week called him a brilliant teacher at University of Michigen[8] and quoted that 'he may well be the most influential thinker on business strategy today'.[9] Prahalad gave new strategic concepts for the organisations which were quite different from traditional ideas on strategy.[10] He worked as a non-executive director at Hindustan Unilever, the NCR corporation, Pearson (publisher of financial times) and was a member of Microsoft's Indian Advisory Board[11]. He presented the very best of Indian intellect that found a global home.[12] His novel strategic outlook was extensively welcomed in the U.S. organisations. He was one of the most sought after business advisors as well. Coimbatore Krishnarao Prahalad proposed two major ideas to the field of management which were: the idea of core competencies of the organization and the idea of looking at poor as source of profit than an object of charity. His work contributed immensely in the upliftment of the poor, helped various businesses and also showed the world the real key to success.

- **Idea of co-creation:** C.K. Prahalad developed the idea of co-creation together with Venkat Ramaswamy in the book 'The Future of Competition' in 2004. He advocated that the organisations can't produce at their own, rather customers should be involved in every stage of value chain of the product such as idea, design, services etc. Dynamic organisations would be able to incorporate the suggestions proposed by customers at a faster pace. Thus the organisations need to be in continuous contact with customers and must be dynamic enough to incorporate their proposals. This, according to them, would offer a new customer experience in addition to the obvious customer satisfaction, as the customers would be able to get exactly what they desire.
- **Idea of core competency:** Joint ventures and collaborations were quite common in the decades of eighties and nineties. The organisations were entering into partnerships with related as well as unrelated businesses to reduce the risk level. In such times, Prahalad proposed a unique idea and advocated that the corporations should focus on their main strength i.e. core competency. He compared the 'Diversified Company' as a tree and major limbs as core products, smaller branches as business units' leaves and fruit as end products and the root system which nourishes and stabilizes all things as core competencies. Thus the organisations should concentrate on improving core competencies only. An organisation may have more than one core competency, but in actual core competency is the peculiar skill that makes an organisation distinct from its competitors.

Prahalad was a man with great vision. His other contributions to the field of management were idea of bottom of the pyramid, strategic intent etc. He was a remarkable teacher, researcher, entrepreneur, and a management guru. He saw the future and introduced various theories that made people believe that the world can be made a better place. His theories made a great difference to India and other developing countries worldwide.

d) Michael Hammer (1948-2008): Business Process Reengineering

Another thought that appeared during the postmodern era was the idea of BPR (Business Process Reengineering) by a well-known American engineer, a management author Michael Martin Hammer. He supported the process oriented management view in 1990s. Hammer defined BPR as 'the fundamental rethinking and radical redesigning of business processes to achieve dramatic improvements in critical measures of performance.' His ideas coined the terms such as process improvement, process excellence and process innovation. This unique idea became popular among many companies of that time but it was argued that the radical redesigning of firms led to layoff at a very large scale. Hammer's contributions to the field of management are summarized here:

- **Need of innovativeness:** Hammer advocated that innovation is needed at each and every stage and can't be ignored at all. In his paper titled 'The invention and deployment of new ways of doing work' (2004), he stressed on the issue of operational innovation. He discussed that successful companies achieve success not because of what they do, but due to how they do. He gave description of many giant companies such as Dell, Toyota, Apple, Google and Southwest Airlines who have expanded their businesses by stressing on operational innovation. These companies have proved themselves to be much better than their

competitors. He explained that only those companies will be able to sustain themselves which will work for innovation. Offering innovative products and services to customers is the only option to be successful in the marketplace.

- **Process and customer orientation:** Hammer's ideas were focused on customers and processes that provide and enhance value for customers. He stressed on redesigning the processes of organisation so that customers' value is maximized. He advocated that 'putting oneself into customer shoes' can assist in process improvements. The organisation should continuously take care of what customer wants and the actual product should correspond to the customer requirements. Hammer supported the view that in twenty first century, only those organisations will be successful which will concentrate on improving their processes. Excellence in processes will give competitive advantage to future successful organisations.
- **Complete reorganization:** Hammer argued that to be distinct in the marketplace the organisations require complete reorganization. Process excellence is going to be the only criteria for success in the organisations. The processes in these organisations must be designed to give customer satisfaction.
- **End of Adam Smith era**: Hammer advocated that in the 21st century organisations, where changes occur every second, the principle of division of labour doesn't apply. The nature of organisations has changed, so reengineering of these organizations is must.
- **Information Workers**: When the organisations will be reengineered, the managers need to be facilitators not supervisors. They need to empower their employees and to provide them guidance and support. The employees should be made ready to give their best for value added processes. They must be recognized for their contributions.

The concept of BPR was a unique idea, but critics took this idea similar to downsizing and it led to firing of a huge number of workmen. In an interview Hammer said that the word reengineering has been hijacked and used in wrong sense in organisations. in actual this concept was aimed at increasing output and creating more jobs.

e) Peter Michael Senge (1947 till date)

Peter M. Senge, an American system scientist also walked on the idea of change and dynamism. He worked in the area of how the modern organisations can inculcate adaptive capabilities. The well popular concept to his credit is 'Learning Organizations'. He advocated for the organisations which improve and update themselves on continuous basis. He discussed his ideas in 1990s (revised in 2006) in his famous publication 'The Fifth Discipline: Art and Practice of Learning Organisation'. Due to this work he became popularly known as 'Strategist of the Century'. His major areas of work are:

- **Dynamism and change are must:** Senge advocated that while performing in business markets, the organisations face both opportunities as well as certain restrictions. In many organisations adaptation to change is restricted due to cultural and interpersonal aspects. But change is needed to be a part of organisations. When a change is productive and a precondition for success, people will certainly support such change. The things need to be discussed with all and problems must be anticipated instead of seeking expert advice on the issue of change.
- **Learning Organisations:** Senge coined the concept of learning organisations, which got acceptance in modern organisations very quickly. He foresaw the vision of having learning organisations which would be exemplary for their workings. Learning organisations are the organisations where people work as a group and move with the idea of continuous enhancement of their capabilities, new thinking patterns are welcomed and people learn on regular basis. To create and maintain a learning organisation, the flexibility and adaptability in the organisational structure is must. The designing of the organisations must be such that it can lead to desired outcomes and whenever there is mismatch it should take the required steps to come at the point of equilibrium. Besides being adaptive learning organisations need to know how the talent and commitment of organisational people can be tapped to make them learn the things. The human element has to be convinced and a shift in their thinking is required. They must be trained and guided in such a way that they could handle unpredictable situations as well. He replaced the idea of survival learning with adaptive and generative leaning i.e. learning should not be for survival but to cope up with change and to be creative. He further identified five areas to create leaning organisations: System thinking (how individual interacts with the other constituents of the system/organisation and with the system itself), personal mastery (organisations learn only through individual learning, thus focus must be on continual/lifelong learning of individual by knowing their own competence and skills together with in competencies), mental models (assumptions that affect how an individual thinks and acts, it can be changed by being open with others), building shared vision (when people excel not because they are told but they want) and team learning (moving together through free dialogue).

Senge's vision of leaning organisation required a new view of leadership. He advocated that leaders must perform certain important tasks such as being designers, stewards and teachers. He was able to add many new thoughts in the literature of management by turning normal organisations into learning organisations.

f) Steve Jobs (1955-2011): Supporter of Change and Innovation

Inventor and co founder, Chairman and CEO of Apple Inc. Steve Jobs contributed immensely towards management thought in Post Modernism Era. He gave unique ideas for managing and leading people over his life time. He advocated that technology is ever evolving and upcoming technologies constantly extricate the established business winners. Thus an organisation is needed to be dynamic enough to make use of new technologies to fight with global competition. Steve's leadership style didn't match with any of the text books, but it was liked too much in the business world. He was in full favour of dynamism and he used to spend many months for introduction of products, public appearances and rehearsals. He made the lives of people different by thinking differently. His management ideology can be visualized from following points:

- **Supporter of Change:** Steve was thinking of changing the world. He once quoted that he wants to put a dent in the universe. He made revolutionary changes in the areas of mobiles, computers, music and animations. He advocated that only those businesses will survive in long run, which will be adaptive to the technological changes.
- **Unique management style**: His management style was far different from that of text books styles. He managed people with the uncompromising style. He used to threaten and embarrass people inside and outside his organisation. He converted Apple into an icon in business world by ignoring the traditional management style of building consensus. He never cared what other feel about anything, people agree with him or not. He believed that he knows far better than his subordinates and even the consumers. He pushed the employees to come out of their comfort zones and work towards the targets they didn't believe they could achieve. Further he emphasised on creating best products rather than selling.

No doubt Jobs grasped a special place in the business world. He chose a different road and believed in 'managing by meaning'. He hadn't stressed on listening to customers, rather he gave new meanings through his unique products. He constantly engaged himself in making such products that could make more sense for the customers. His approach was not user driven, but he made his own proposals to them. He made his people work hard on visionary projects and meeting targets. His devotion, skills, innovative mind and different thinking led him towards unparallel success.

3. DISCUSSION AND CONCLUSION

The period of Postmodernism rejected a rational systems approach regarding the organizations and management. Highly flexible, free-flowing and fluid structures with the ability to change quickly to meet present demands form the basis of the new organization. Most of the thinkers in this era supported the concept of dynamism. Peter Drucker (the father of modern management) stressed on creating dynamic organisations through innovation and creativity, Tom Peters through his search for excellence stressed on dynamic leadership, Michael Hammer stressed on redesigning the business processes, Peter Senge on continuous learning, while Steve Jobs advocated for continuous innovation and creativity in the organizations. Thus the thinkers in the post modern era realized the fact that same technique or theory can't be applied forever, as business environment would never be static. The thinking that emerged in the Post Modern era directly challenged the view point of classical thinkers who were in favour of static organisational structures.

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ROLE OF CORPORATE ORGANIZATIONS IN RURAL HEALTH SCHEMES – AN EMPIRICAL ANALYSIS (A STUDY WITH REFERENCE TO SELECT VILLAGES IN GUNTUR DISTRICT, ANDHRA PRADESH)

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ABSTRACT

The article titled "A study on the role of corporate participation in the health schemes initiated by the government in the rural areas of Andhra Pradesh" intends to bring into limelight the business opportunities existing in the rural areas and villages in the coastal Andhra Pradesh to promote the medical and health schemes by the government. The main objective of this study is to throw some light on the present functioning of the government medical and health services and the state of affairs prevailing in promoting these much needed and applauded health schemes in these areas. It is found from the survey that one-third of the respondents were unable to get any medical assistance to address their health issues, which are very much primary in nature. When examine the relationship between the dependency of people on governmental schemes, it is observed that there is a negative relationship between the different income groups and their dependency on governmental schemes. It is also found from the study when asked the medical support on decease-wise, majority of them expressed that they are not receiving the medical help at their expected level.

KEYWORDS

Guntur district, corporate organizations, rural health schemes.

1.0 INTRODUCTION

The main intention of attempting this study is to send a direct and a vivid call to the corporate to participate or undertake the health schemes promoted by the government and are getting dusted because of lack of funding from the government. Also, the study tries to highlight the dependency of most the rural populace on the health schemes promoted by the government. The paper stresses greatly on the issue that discontinuation of some of the schemes or all of them could lead to disastrous consequences.

The population of the rural India thrives on intricate chemistry of its own. Despite calls of globalization and economic development piercing the corridors of political houses, none of these are of matter to the rural populace. Every day they wake-up to face challenges thrown at them by in climate weather conditions, rough and harsh terrains, increasing transportation costs and ruthless middlemen. Often their survival is amongst unhealthy, unhygienic conditions, without proper drinking water and transport. Often, they fall prey to viral fevers, diarrhea, Typhoid, malaria and other viral deceases. To survive; they need schemes which reach them in time and offers them much needed comfort, support and medicines. If the schemes, such as the Arogya Sree, 108 Ambulance service, 104 medicinal and primary health vehicles, fully equipped and function primary health centers, stop, the life line of the rural populace is cut. They depend solely and fully on these schemes to receive their medical help and assistance. A press report appeared in the Telugu daily Eenadu highlights about the Arogyasree, titled full of cuts, on 6th July, 2011, focused the loopholes and the lack of monitoring resulted to the mishaps in the conduct of the scheme.

It is of great importance to support these activities and to keep them running and this is exactly the reason, the authors felt, why corporate intervention is required. A series of articles which came in the Telugu daily Eenadu and other reports by the news media prompted the authors to take-up this study. Using the newspaper reports and other print media as a backbone, an investigative study was conducted in the select villages of the Guntur district of Andhra Pradesh. The villages were chosen with much care and precision to represent different geographical location in terms of size and economy.

2.0 NEED FOR THE STUDY

The study gains lot of importance in the present context of time as some of the much-applauded health schemes are beginning to fail as funding has become feeble and sustenance of the programs has become highly doubtful in these circumstances. An article in the Telugu daily Eenadu titled "There Nurses are the Doctors", highlights the pathos of some the PHC's in the district. In fact, the article throws light on the fact that there are only 3 Gynecologists available in 73 PHC's in the district. Also, another article published on the same day in the same paper is worth reading. Titled "Citizens, trembling with fevers and fear", shows the absolute lack of manpower in the PHC's resulting in disastrous consequences in the villages of Guntur District, Andhra Pradesh.

The authors sense an opportunity for the corporate to enter into the rural areas to conduct the health schemes successfully as happened with Novartis in the case of Corporate Social Responsibility venture launched in the East African countries by Novartis. This study titled "Corporate Role in Sustainable Development: A Case of Novartis", Supritam Majumdar (2016), the case is indeed an eye opener for some of our Indian corporate to follow.

3.0 METHODOLOGY

3.1 OBJECTIVES OF THE STUDY

The main aim of this study is to examine the role of corporate organizations in the health schemes promoted by the government and are getting dusted because of lack of funding from the government. Also, the study tries to highlight the dependency of most the rural populace on the health schemes promoted by the government. The paper also examines the issue of discontinuation of some of the schemes or all of them could lead to disastrous consequences.

3.2 SAMPLE SELECTION

The study is taken on a sample number of respondents, 100 to be precise, chosen from a cluster of villages from the villages of Guntur District. The villages chosen were selected with great care and precision to fulfill all the necessary criteria to become a cluster sample. The villages chosen for study, i.e. those of Vinjanampadu, Pulladigunta, Kornepadu, Kondarajagarimudi, Marripalem of Guntur District. were so chosen such that their size, in terms of number of families, drinking water facilities, access to primary health care in the village, visits by 104 regularly to the village, access to 108 service were taken into consideration.

A cluster sample of 100 respondents were chosen from these said villages consisting of respondents from classes of people with different income groups, occupation, ages, gender and locality. The sample is subjected to a series of investigative questions and probing questions through a well-built questionnaire, printed in

local language for better understanding and interpreted later. Even the samples of 100 respondents were chosen with a great degree of care. Some of the questions are to observe the behavioral patterns of the respondents and to do so Likert scale is used. Likert scale is preferred primarily because of the multiple variables involved in the study. Later, the data is analyzed using correlation analysis. The findings were recorded and appropriate measured are suggested based on the findings. Also, a strategic model has been devised for the benefit of the academia and the readers which brings into focus the solution for the problem.

3.3 COLLECTION OF DATA

Two types of data are used to fulfill the objectives of the study. The primary data concerning the study was taken from the questionnaire exercised on the sample of respondents and noted the opinions of the respondents. In a part of the questionnaire, because of the existence of multiple variables under study, a scale called Likert scale was used to collect data from the sample respondents. Besides, secondary data is being also taken from various sources, like the News dailies, research articles and other print media.

3.4 DATA ANALYSIS AND STATISTICAL TOOLS

To analyze the data simple tabulation and percentage technique was adopted. Also, simple correlation technique using Karl Pearson coefficient method was adapted. The tabulation of the results is as given under:

TABLE 1: DETAILS OF PHC MEDICAL SERVICES IN THE SELECT VILLAGES OF THE AREA OF THE STUDY

Name of the Village	No. of respondents approached PHC	No of Respondents get the treatment	% of people did not get the service
01. Vinjanampadu,	15	5	33.33
02. Pulladigunta	11	3	27
03. Kornepadu	6	2	33.33
04. Kondarajagarimudi	21	5	23.08
05. Marripalem	26	6	23.07
06. Boyapalem	21	7	33.33

Source: Collected from the Survey

Table-1 presents the data on the status of medical services provided in the select area of the study. It can be seen from the data in table-1 that from the villages of Vinjanampadu, Boyapalem and Kornepadu, around one-third of people were sent out or returned home primarily due to lack of medicinal supply or shortage of medical staff., whereas, in case of Pulladigunta village, around 27% of the people did not receive any kind of medicinal support. In case of Marripalem and Kondarajagarimudi villages about 23% of the people did not receive any sort of assistance. It can be inferred from the foregoing analysis that a sizable number of disgruntled patients looking for medical help but should return dissatisfied because of the lack of doctors, medicines and in some case, both. Further, around 33% of the sample respondents suffered primarily because of the lack of medical assistance.

TABLE 2: CORRELATION BETWEEN INCOME OF THE RESPONDENTS AND THEIR DEPENDENCY ON THE GOVT. HEALTH SCHEMES

Income range (Rs. '000)	No. of respond-ents	Mean value of X_1	No. of dependents need Govt. Health Schemes	Mean value of Y_1	(X_1- Mean X_1)	(Y_1-Mean Y_1)
10- 25	56	20	53	15.8	16	7.2
25-50	25		12		5	-3.8
50-75	14		12		-6	-3.8
75-100	4		2		-16	-13.8
100-200	1		0		-19	0

Source: Computed from the collected data through the Survey

Using Karl Pearson's correlation Coefficient

$$r = \frac{(X_1 - \text{Mean } X_1)(Y_1 - \text{Mean } Y_1) - 316}{\sqrt{(X_1 - \text{Mean } X_1)^2 (Y_1 - \text{Mean } Y_1)^2 355.5}} = \frac{}{} = -0.88$$

The authors tried to understand the relationship between the two extraneous variables under study, income and dependency on government health schemes. By using Karl Pearson's correlation formula, the correlation coefficient has been obtained and the same is shown in Table-2. It is observed from the data in table-2 that the coefficient happened to be a negative value, i.e., 0.88, and it shows that both the income range of the respondents and people's dependency on the Government health schemes are negatively correlated with less dependency on each other. This positively shows that there are other factors affecting people's dependency on government run health schemes other than income, such as the availability of the service, service location, nearness to the respondent, etc.

FIG. 1

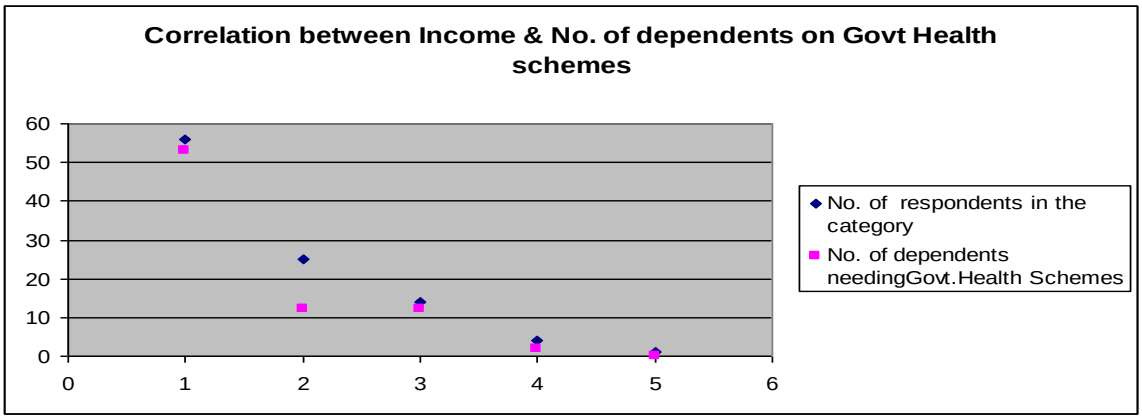


TABLE 3: TYPE OF DECEASES AND THE SERVICE PROVIDED BY THE PHCs

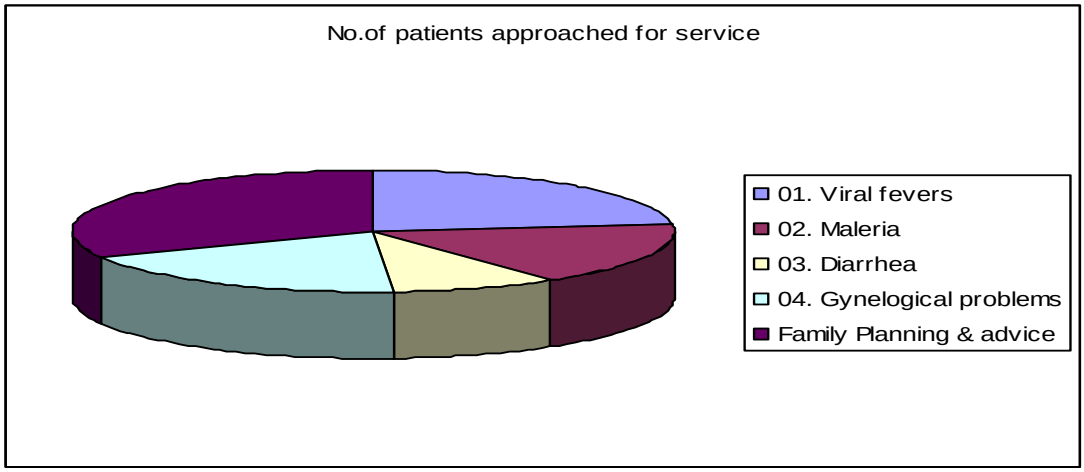
Nature of the Decease	No. of patients approached for service	No. of patients did not receive the treatment	Percentage
Viral fevers	23	7	30.5
Malaria	17	9	52.0
Diarrhea	9	6	66.0
Gynalogical Issues	19	6	33.0
Family Planning & Advice	32	21	65.5

Source: Collected from the Survey

While conducting the research, the researchers tried to probe into the functioning of the PHC's by analyzing the number of patients cured by the PHC's for some of the most commonly faced deceases and the receipt of medicinal support for these decreases. The researchers tried to probe into the functioning of the PHC's and other governmental schemes, such as 104 and 108, Arogya Sree, etc.

Table-2 depicts the data on the type of deceases and the medical support by the PHCs in the select area of the study. It can be seen from the table-3 that in case of Viral fevers and Gynalogical issues about one-third of the patients who approached the PHCs are not getting any treating for it. Further, in case of Malaria half of the patients are not treated in the medical centers. The surprising news in this direction is that about two-thirds of the patients are not received any treatment from these medical centers. Thus, the findings of the survey reflect the fact the number of respondents who did not receive their medical advice is large in cases, which shows that there PHCs are not properly working for the cause of providing the medical support in the rural areas of the select district of the study.

FIG. 2



4.0 FINDINGS

From the foregoing discussion, the following observations are arrived on the governmental health supporting system.

(i) Out of the sample respondents about one-third of them were unable to get any medical assistance to address their health issues, which are very much primary in nature.

(ii) When correlation technique is used to see if there is any significant dependency of the people of different income groups on governmental schemes, it is found to be negatively correlated.

(iii) The sample respondents were subjected to a series of questions which primarily focused on whether basic medicinal help is provided or not in case of decease-wise for which majority of them expressed that they are not receiving at their expected level.

5.0 SUGGESTIONS

As it always happens in democracy, the governments often launch several programs without understanding the problem they are going to face in keeping the programs running. If they remove the scheme, then people will not hesitate in dethroning the government as it is a subsidy given by the State.

However, if any country needs to possess a good economic development, then it is supposed to move from command economy, like ours to mixed economy. In mixed economy, the number of programs to be run by the government and subsidies will disappear, leaving plenty of scope for the government to initiate new schemes. All the previously running governmental schemes will be picked-up by the Corporates as social responsibility measure.

(i) Corporate Involvement

The Corporates can easily pouch this opportunity as the rural villages of West Godavari region are densely populated and are subject to the most common de-ceases, like Viral fevers, Diarrhea and Malaria. Since they do not have access to private hospitals for receiving quality medical treatment they depend solely on the PHC's. If the PHC's are provided with better medical facilities like:

- the increase in the number of doctors
- increase in the nursing and support staff
- better quality medicines supply
- Better hygienic conditions
- Visits from experts occasionally

It makes the functioning of PHC's a lot better.

(ii) Creation of a Social Net

The participation of corporate in either promotion or conduct of the government initiated health schemes in the rural areas ensures that an impregnable social net is built which is vital for the sustenance and the growth of the community. The point lies in creation of a cost-effective revenue model, which turns the entire model into a marketable proposition.

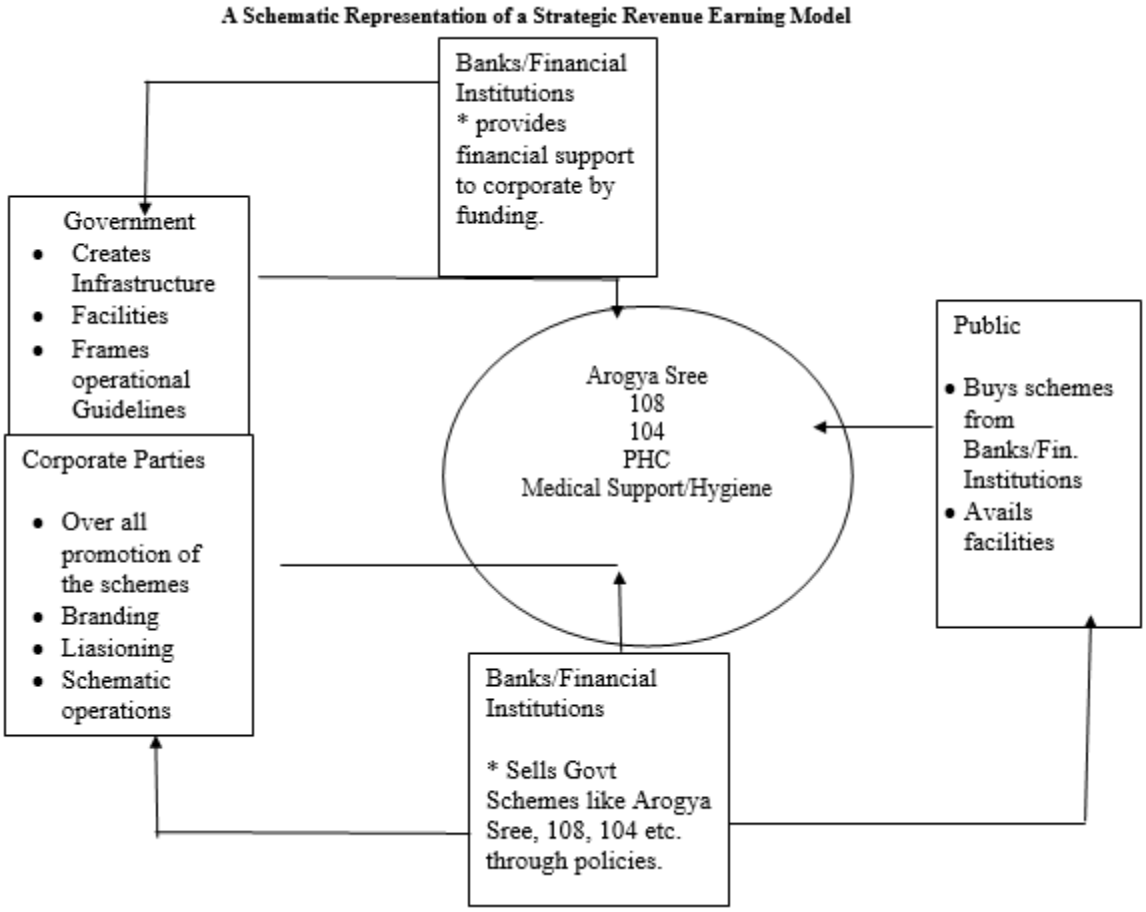
(iii) Cost-Revenue Factor

Cost is never a problem because, with the support of the existing infrastrure, manpower and other paraphernalia, it does cost the corporate a million bucks to improve the set-up. To make the operations more operable combined effort of the corporate, government and financial institutions is required. As these opera-tions required plenty of financial assistance, the required assistance can be procured from banks and financial institutions in the form of short-term and long-term loans depending upon the necessity.

(iv) Revenue Source

The objective of Arogyasree and other health schemes of the government is to see that quality medical assistance is provided to the needed and poor at less cost or no cost**.** However, it is literally impossible to implement any scheme without making it as a revenue source. Government can offer these health schemes at minimal rates, which can be bought by needy people in the form of health loans, health insurance schemes which are financed by banks and other financial institutions. Revenue will come, obviously if the charges suit the pockets of the rural poor. If they find faith in the service set-up, people will turn-up obviously bringing along with them more money and lots of good luck and hope.

FIG. 3: A SCHEMATIC REPRESENTATION OF A STRATEGIC REVENUE EARNING MODEL



6.0 CONCLUSION

It can be said from the experiences of Novartis, Indian corporate too can take a leaf out Novartis's book in coming forward and offering a helping hand to those who are in need, of course at a price which suits the rural poor.

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JOB SATISFACTION AND MENTAL HEALTH OF IT PROFESSIONALS

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ABSTRACT

The present paper examines the relationship between Job Satisfaction and Mental Health of employees in Indian IT sector. Mental health of employees is hypothesised to be determined by depression, anxiety, burn-out and self-esteem. A simple random sample of 154 IT employees from South India were considered and a structured questionnaire consisting of 29, five point Likert's Scale items were used to gather data on the variables of the study. Multiple Regression Model was used to track the significant impact of Depression, Anxiety, Burnout and Self Esteem on Mental health and there by on Job Satisfaction. Results of the study indicates that Depression, Anxiety, Burnout are significantly influencing the Job satisfaction levels of sample respondents. The impact of Self Esteem on Job Satisfaction is not statistically significant.

KEYWORDS

job satisfaction, depression, anxiety, burnout, self-esteem.

INTRODUCTION

Human Resource Management considered to be one of valuable assets in any organization. It's the sum-total of inherent abilities, acquired knowledge and skills represented by the talents and aptitudes of the employed persons who comprise of executives, supervisors, and the rank and file employees. It is noted that human resources should be utilized to maximum possible extent, to achieve individual and organizational goals. It's therefore the employee's performance which ultimately decides and attainment of goals. However, the employee performance to an extent, influenced by motivation and job satisfaction. Human resource management may be a specialised functional area of business. It tries to develop programmes, policies, and activities to promote the job satisfaction of both individual and organizational needs, goals and objectives, work to satisfy their needs. In this Article the topic emphasizes on job satisfaction and how job satisfaction linked to Anxiety, Burnout, Self esteem and Depression.

REVIEW OF LITERATURE

The following are some of the studies that are reviewed for the present paper.

1. E B Faragher,M Cass,C L Cooper (2003): A systematic review and meta-analysis of 485 studies with a combined sample size of 267995 individuals was conducted, evaluating the research evidence linking self-report measures of job satisfaction to measures of physical and mental wellbeing. The relationships found suggest that job satisfaction level is an important factor influencing the health of workers.

2. Dr. Ramyashilpa, D.Nayak (2014): The study aims to find out the level of anxiety and mental health of software and mechanical professionals. The age group of 21 to 28 years were found to have highest anxiety as compared to their senior colleagues.

3. Rupali Das (2012): The nature of work and work schedules are putting the health of young software professionals in danger. This exploratory research discusses the occupational health problems faced by Offshore (India) and Onsite (USA) employees of a software development company. Proper rest breaks, physical exercise, adequate sleep and relaxation at home are very easy and beneficial strategies to cope with the health problems.

4. Melanie K. Jones, Paul L. Latreill and Peter J. Sloane (2015): This article examines the relationship between employee psychological health and workplace performance. Job anxiety is found to be strongly related to the demands of the job as measured by factors such as occupation, education and hours of work. Greater anxiety in more demanding jobs with lower levels of employee control. Perceived levels of support from and consultation with management reduce anxiety levels.

5. Hoe-Chang Yang, Yoon-Hwang Ju & Young-Chul Lee (2016): This study is focused on female inbound call center counselors who are easily exposed to emotional labor when customers express anger and hostility and use swear words toward invisible targets on the phone. Job stress was found to lessen job satisfaction. Job satisfaction contributed to the reduction of turnover intention.

6. Karim Babayi Nadinloyi, Hasan Sadeghi, Nader Hajloo (2013): The purpose of this study was to examine the relationship between job satisfaction and mental health. Finding of the research indicated that there was a positive relationship between job unsatisfaction employees and global index of mental health, social action and depression. It was found that employed women than employed men are more satisfied with their jobs.

7. Jenny Hayes (2011): One of the greatest challenges facing employers in an environment where staff numbers are reduced and when performance and productivity levels need to higher than before is how to deal with stress and anxiety among staff before depression takes hold. There is a negative association among Irish people regarding those diagnosed with mental health problems.

8. Louise Tourigny, Vishwanath V. Baba and Xiaoyun Wang (2010): This study focuses on the relationships between emotional exhaustion and other dimensions of burnout as well as depression among nurses in Japan and China. Job satisfaction and absence were found to moderate the relationship between emotional exhaustion and depression simultaneously among both Japanese and Chinese nurses. Job satisfaction and absence simultaneously moderated the effect of emotional exhaustion on diminished personal accomplishment among Japanese nurses only.

9. J.Dharmaraj (2014): A workforce with high job satisfaction leads to an improvement in work quality and productivity, and leads to satisfied loyal customers. In the IT Industry the environment is quite congenial leading to motivation of employees with the result the productivity is increased and this indicates the level of their job satisfaction. Findings shows that relationships with immediate supervisors, management recognition of employee job performance, and communication between employees and senior management contribute to job satisfaction.

10. Robert E.Rada,Charmaine Johson-Leong (2004): Dentistry can be stressful profession. Stress tolerance usually decrease when a person is ill or not had an adequate rest. Stress management should be targeted to dental students and practicing dentists.

11. Jon L. Pierce, Donald G. Gardner (2004): It is a review of more than a decade of research on an organization-based conceptualization of self-esteem. It is observed that sources of organization structure, signals about worth from the organization, as well as, success-building role conditions predict organization-based

self-esteem. In addition, organization-based self-esteem is related to job satisfaction, organizational commitment, motivation, citizenship behavior, in-role performance, and turnover intentions, as well as, other important organization-related attitudes and behaviours.

12. Dr. S. Rabiyathul Basariya (2014): The absenteeism becomes a problem to organizational management particularly when employees absent from their work environment without giving sufficient notice and by justifying their stand by furnishing fake reasons. For workers, personal problem is the reason for being absent, and some think stress can also be the reason. Working Conditions also contribute to employee absenteeism. This research highlights the ways to reduce the absenteeism of the employees in the Indian Industry.

13. Quinn M. Pearson (2008): Psychological health for women involves the impact of multiple roles. Compared with employed men, employed women continue to bear far greater responsibility for household tasks and caregiving responsibilities. When participants are less overloaded with their roles, more satisfied with their jobs, or more satisfied with their leisure, they tended to experience greater levels of psychological health.

14. Nitu Chomal and Papori Baruah (2014): The study tries to visualize the availability of performance linked reward and job satisfaction level of employees across the managers and clerical staff of banking sector. High amount of dissatisfaction persists in the clerical category owing to the present performance linked awards.

15. Barbara A. Sypniewsk (2013): This article presents the results of the research conducted by the author in 2012 on a sample of 215 people. Respondents represented different organizations. The aim of the study was to identify and assess the significance of individual factors influencing satisfaction and dissatisfaction with work and demonstrate their impact on the overall assessment of job satisfaction. For the respondents, the most important factor influencing job satisfaction was the atmosphere at work, while the least important factor was the culture of the company.

16. Neelam Yadav (2014): In this study, Worklife balance of employees in education field (Degree Colleges Permanent Employees) and I.T. industries, and opinions about various aspects of work-life were studied. Worklife balance has become an important issue at workplace. It is a key factor which determines employee satisfaction, loyalty and productivity. Increased working hours is having an important effect on the lifestyle of a huge number of people.

17. Mozumdar Arifa Ahmed (2012): The objective of this study was to investigate the role of self- esteem and optimism in job satisfaction among teachers of private universities in Bangladesh. The survey results revealed that self-esteem and optimism is significantly positively correlated with teacher's job satisfaction.

18. Seon-Hwa Kwag, Mi-Hee Kim (2009): The present study is designed to test the moderating effect of supervisor's support, job discretion, and self-esteem on relationship between role overload and role conflict and members' job burnout. The major findings of the study are as follows; Role overload and role conflict are shown to be the major antecedents of job burnout, particularly of the exhaustion and disengagement components. The disengagement of job burnout was related to lower levels of job performance. Moderating effect of supervisor's support on the relationship between role overload and the members of exhaustion was statistically significant. But moderating effect of job performance and self-esteem was not significant.

19. Mo Siu-Mei Lee, Ming-Been Lee,Shih-Cheng Liao, Fu-Tien Chiang (2006): The present study investigated the prevalence of psychiatric morbidity and level of job satisfaction, as well as the relationship between psychological distress and job satisfaction and associated factors, among non-physician employees of a laboratory medicine department at a university medical center.

20. Mohammad Hossein Yarmohammadian, Ali Mohammad Mosadegh Rad (2015): The purpose of this study is to explore the relationships between managers' leadership styles and employees' job satisfaction in Isfahan University Hospitals, Isfahan, Iran.

Employees demonstrated less satisfaction with salaries, benefits, work conditions, promotion and communication as satisfier factors and more satisfaction with factors such as the nature of the job, co-workers and supervision type factors.

DESCRIPTION OF PROBLEM

Job satisfaction is that the extent of positive feelings or attitudes that the individuals have towards their job. Factors that have an affect on job satisfaction are usually classified as organisational factors, work environment factors, personal factors, and work itself. Of the personal factors, mental health is considered to be an important driver of job satisfaction. Mental health is defined as a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his community. Mental health is measured by scales of depression, anxiety, burnout, and self esteem. It can be said that job satisfaction is linked to mental health and mental health in turn depends upon factors like depression, anxiety, burn-out and self-esteem. The present study investigates the relationship between job satisfaction and the determinants of mental health, namely depression, anxiety, burn-out and self-esteem.

Current trends engaged in employment conditions may be eroding levels of job satisfaction—and directly damaging the physical and psychological state of Employees. Employees with low levels of job satisfaction are likely to experience emotional burn-out, to have reduced levels of self-esteem, and to have raised levels of both anxiety and depression. Job burnout is a special style of job stress — a state of physical, emotional or mental exhaustion combined with doubts with reference to competency and additionally the worth of work. Job burnout may result from numerous factors, including Lack of control and Unclear job expectations. Self esteem is defined as degree to which a person has a positive self-evaluation. An increase in self-esteem was linked to increased involvement, and lead to increased goal setting. Organizations wants to maximize productivity by minimizing stress, as the increased levels of stress and burnout might have significant implications for organizational performance such as reduced job satisfaction and lowered organizational commitment. Depression is primarily viewed in terms of negative feelings, self-depreciation, self destructive thoughts, and social withdrawal. Anxiety was associated with unpleasant state of inner turmoil, accompanied by nervous behavior like pacing back and forth, rumination and somatic complaints. When a person is prone to sever anxiety he/she cannot perform efficiently at work.

Thus we can say that job satisfaction is linked to mental health and mental health in turn depends upon depression, anxiety, burn-out and self-esteem. The present study wanted to investigate the association between job satisfaction and determinants of mental health namely depression, anxiety, burn-out and self-esteem.

SIGNIFICANCE OF THE STUDY

Job satisfaction is becoming more and more important aspect in workplace. Employers currently recognize that the "happier" their employees are, the better will be their attitudes towards the work, the higher their motivation and the better will be their performance. Job satisfaction in any field of work depends alot on how conductive the work environment is. The work itself, the pay and the scope for promotion are just some of the factors that have an impact on job satisfaction. With regardless of job title and pay grade, employees who report high job satisfaction tend to attain higher productivity. Job satisfaction is essential to ensure higher revenues for the organization. No amount of trainings or motivation would facilitate, unless and until individuals develop a sense of attachment and loyalty towards their organization.

According to the World Health Organization(WHO), mental disorders are the single most common cause of disability in young people. If left untreated, mental disorders can impede all aspects of health, including emotional well-being and social development, leaving young people feeling socially isolated, stigmatized, and unable to optimize their social, vocational, and interpersonal contributions to society. Addressing mental health problems early in life can results in decrease in emotional and behavioral problems, functional impairment, and contact with all forms of law enforcement. It can also lead to improvements in social and behavioral adjustment, and learning outcomes. Including mental health in business model is vital to a healthy workplace. Poor mental health conditions not only hurt the individual, it also reduces company profits. It's important that each level of the workplace within the organization-including the Board of Directors, management, human resources department and finance departments -get involved to incorporate mental health at their workplace**.** Mental health improves the quality of life. When employees are free of anxiety, depression, excessive stress, worry, addictions and other psychological problems, then they are more able to live their lives to the fullest.

Job security, working hours, supervisor support and changes in job control levels have also been related to individual job satisfaction levels. Work practices are becoming more automated and inflexible, leaving employees with less and less control over their workload. In organisations employees are regularly being required to work beyond their contracted hours, often unwillingly as organisations struggle to meet tight deadlines and targets. In this context the current study deals with factors affecting the job satisfaction and its impact on oraganization.

OBJECTIVES OF THE STUDY

1. To build a theoretical model explaining the relationship between job satisfaction and mental health.
2. To build a statistical model examining the link between job satisfaction and determinants of mental health.
3. To investigate the nature of relationship between job satisfaction and mental health in select organizations of Indian IT Sector.
4. To suggest measures for controlling the negative impact of mental health on job satisfaction.

CONCEPTUAL MODEL

FIG. 1

The conceptual model for the study can be expressed as follows:
JS= f (Mental Health) ----------(1)
Mental Health=f(DE,AX,BO,SE) ----------(2)
From 1 and 2, we can say that JS=f(DE,AX,BO,SE).--------(3)

HYPOTHESIS FOR THE STUDY

Based on the conceptual model we shall test the following alternative hypothesis
H_{11}: Job satisfaction is negatively related to depression.
H_{12}: Job satisfaction is related (?) with anxiety.
H_{13}: Job satisfaction is negatively related with burn-out.
H_{14}: Job satisfaction is positively related with self-esteem.

RESEARCH METHODOLOGY

The study employs survey research design as there is a need to gather information on employee's perception towards various determinants of Mental health. To achieve the stated objectives and test the proposed hypothesis, a random sample of 154 employees belonging to Indian I.T. sector were selected. A structured questionnaire was designed with 29 Likert's five point Scale items to gather data on job satisfaction, depression, anxiety, burn-out and self-esteem of selected respondents. The data collected was then analyzed with the help of descriptive statistics and inferential statistics. Regression techniques is used to test the hypotheses. For analyzing data software R is employed.

REPRESENTATION OF EMPLOYEES RESPONSES FOR JOB SATISFACTION QUESTIONNAIRE

Item AG DG NE SAG SDG

TABLE 1

1 q1 60.389610 9.090909 24.675325 3.8961039 1.9480519
2 q2 54.545455 14.935065 19.480519 7.7922078 3.2467532
3 q3 63.636364 12.987013 17.532468 4.5454545 1.2987013
4 q4 50.649351 13.636364 27.922078 6.4935065 1.2987013
5 q51 39.610390 5.844156 24.675325 26.6233766 3.2467532
6 q52 54.545455 6.493506 20.779221 14.9350649 3.2467532
7 q53 55.194805 1.298701 29.870130 11.0389610 2.5974026
8 q54 61.688312 2.597403 21.428571 11.0389610 3.2467532
9 q6 26.623377 30.519481 38.961039 1.2987013 2.5974026
10 q7 51.298701 15.584416 26.623377 3.2467532 3.2467532
11 q8 12.337662 54.545455 16.233766 1.2987013 15.5844156
12 q9 73.376623 2.597403 15.584416 7.7922078 0.6493506
13 q10 50.000000 10.389610 29.220779 7.1428571 3.2467532
14 q11 5.844156 56.493506 5.844156 2.5974026 29.2207792
15 q12 71.428571 1.298701 9.740260 16.2337662 1.2987013
16 q13 12.337662 44.155844 33.116883 2.5974026 7.7922078
17 q14 5.844156 62.337662 16.233766 1.2987013 14.2857143
18 q15 18.831169 41.558442 26.623377 2.5974026 10.3896104
19 q16 12.337662 53.246753 23.376623 0.6493506 10.3896104
20 q17 27.922078 25.974026 35.064935 1.2987013 9.7402597
21 q18 8.441558 61.038961 19.480519 2.5974026 8.4415584
22 q19 6.493506 66.233766 16.883117 1.9480519 8.4415584
23 q20 50.000000 16.233766 28.571429 2.5974026 2.5974026
24 q21 24.675325 35.714286 33.116883 1.9480519 4.5454545
25 q22 31.818182 30.519481 32.467532 3.8961039 1.2987013
26 q23 49.350649 9.740260 35.714286 3.2467532 1.9480519
27 q24 74.025974 4.545455 16.883117 3.2467532 1.2987013
28 q25 52.597403 9.090909 29.220779 6.4935065 2.5974026
29 q26 50.000000 8.441558 34.415584 4.5454545 2.5974026
30 q27 57.142857 7.792208 27.922078 3.8961039 3.2467532
31 q28 59.090909 11.038961 24.025974 3.8961039 1.9480519

agree-AG; disagree-DG; neutral-NE; strongly agree-SAG; strongly disagree-SDG

REGRESSION EQUATION ESTIMATION

The model to be estimated is stated as follows:

Job Satisfaction = $a + b_1DE + b_2BO + b_3Ax + b_4SE + e$ ------ (4)

Where, DE = Depression, BO =Burnout, Ax= Anxiety, SE = Self Esteem

b_1, b_2, b_3 are regression coefficients and e is the error term.

The statistical software "R" was used for estimating the model. The results of Multiple Regression Analysis are given below(Table.1).

TABLE 2

Dependent Variable = Job Satisfaction(JS)

$R^2 = 0.71$

Independent Variables	*Coefficient*	*Std. Error*	*t-ratio*	*p-value*
Const	12.7409	3.71218	3.4322	0.0008
DE	−0.843475	0.106464	−7.9226	<0.0001
BO	−0.506109	0.146387	−3.4763	0.0020
Ax	−0.245304	0.122018	−2.1010	0.0409
SE	0.0731635	0.179942	0.4066	0.6849

REGRESSION DIAGNOSTICS

FIG. 1A

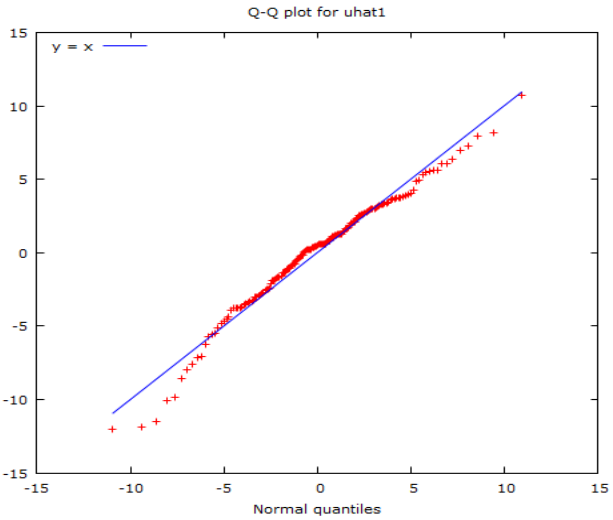
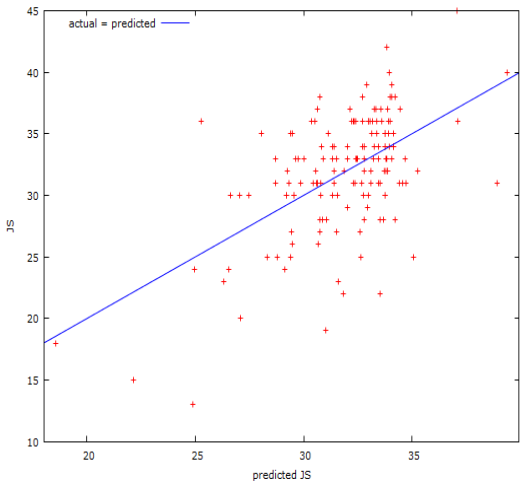


FIG. 1B



TESTING OF HYPOTHESES

The Multiple Regression was found to be statistically significant with an "R^{2}" value of 0.71 and the assumptions were also found valid as visualized in the diagrams. From the results of Regression between the dependent variable, Job Satisfaction(JS) and the Independent Variables: Depression(DE), Burnout(BO), Anxiety (AX) and Self Esteem(SE) as shown in the Table 1, we can test the maintained hypotheses:

- Job satisfaction is negatively related to Depression as the "t" value for coefficient of Depression is Negative(-0.84) and significant at 5% level.
- Job satisfaction is negatively related to Burn out as the "t" value for coefficient of Burn out is Negative (-0.50) and significant at 5% level.
- Job satisfaction is negatively related to Anxiety as the "t" value for coefficient of Anxiety is Negative(-0.24) and significant at 5% level.
- Self-esteem has a positive impact on Job satisfaction but it is found to be statistically not significant as the "t" value is 0.406. Thus we may not accept H_{14}.

INTERPRETATION OF RESULTS

Based on the conceptual model and statistical model being estimated with sample data, the following findings are made.

- Job satisfaction is negatively related to depression.
- Job satisfaction is negatively related with anxiety.
- Job satisfaction is negatively related with burn-out.
- Job satisfaction is positively related with self-esteem

SUGGESTIONS

- Organisations needs to include the development of stress management policies to spot and eradicate work practices that cause most job dissatisfaction among employees.
- Proper rest breaks, adequate amount of sleep and relaxation at home are easy and beneficial strategies to deal with the health problems.
- Exercise has a great effect on anxiety and mental health, and it should be a part of anyone's life that contains stressful work environment.
- Promote health of employees (e.g. promoting physical activities, healthy lifestyle, and offering rehabilitation) as a priority issue in the organisations.
- Facility of flexible work timings should be given to employees.
- Motivating employees towards organizational goals will significantly moderate the impact of depression, anxiety and burnout on Job satisfaction.

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BULLWHIP EFFECT AND RFID IN SUPPLY CHAIN

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ABSTRACT

Bullwhip effect in supply chain management poses a lot of challenges to the managers in optimizing supply chain performance. Distorted demand information is a major factor causing bullwhip effect. Ensuring accurate information sharing can reduce if not totally eliminate a lot of problems in a supply chain, including the bullwhip effect. Radio Frequency Identification (RFID) is a technological innovation that has made accurate information sharing easier and faster than ever before. This paper is a review work highlighting the link between bullwhip effect and RFID by connecting extant research in these areas.

KEYWORDS

RFID, bullwhip effect, order batching, lead time.

INTRODUCTION

Demand volatilities combined with supply uncertainties pose optimization challenges. Bullwhip effect – the increase in demand variations from downstream end to the upstream end of the supply chain – is one such challenge that firms are increasingly facing. Given the era of 'global village' firms are required to coordinate and integrate global network of suppliers and customers so as to be proactive to such demand and supply uncertainties. Technological advancements have dramatically changed the way firms do such coordination in supply chain. Radio Frequency Identification (RFID) is a technological innovation in identifying and tracking products using electronic tags or chips. Deployment of this technology makes demand and supply information more visible, thus reducing the bullwhip effect in supply chain.

OBJECTIVE

The objective of this study is to throw light on the existing research on Bullwhip Effect and understand the link between Bullwhip Effect and RFID in Supply Chain Management.

METHODOLOGY

This paper is based on secondary data analysis. The work has been compiled by extracting inputs from various online publications and studies by eminent authors in this area.

THE BULLWHIP EFFECT

Bullwhip effect, also known as Forrestor effect, is amplification of demand and order variations as one moves up the supply chain, including increasing swings in inventory in response to such demand variations.

Proctor & Gamble observed this phenomenon for its best-selling brand of diapers, Pampers. Although the consumption of diapers by babies remained more or less steady, it was observed that the retailers', wholesalers' and distributors' demand for the same increased manifold. This increase in demand order variability was identified as bullwhip effect. It is also known as whiplash effect or whipsaw effect in certain other sectors. Similarly, Hewlett Packard noticed that there were demand variations for one of its printers at the retailer level. But the orders placed by the retailer for the same printer showed bigger swings. There was even higher variability in orders from the printer division to the company's integrated circuit division. Volvo's marketing team developed a promotion program to clear excess inventory of their green cars. This generated the required market pull to sell the stock. Manufacturing department increased its production reading this increase in sales as increase in demand as it did not know about the promotional programme.

There is distortion in the supply chain as the entities in the chain order a higher quantity based on forecasted consumer demand rather than actual consumer demand. Thus, demand variations oscillate and amplify up the supply chain resulting in piling up of inventory across the supply chain. (i) Demand forecast updating – more fluctuations in order quantities than those in demand data (ii) order batching – accumulation of orders (iii) price fluctuation due to promotions which result in forward buying and (iv) rationing and shortage gaming – resellers place phantom orders due to expected shortages - have been identified as the four major factors causing bullwhip effect.(Hau L Lee, 1997).

ROLE OF 'INFORMATION'

Effective decision making in supply chain requires availability of right information at the right time and at the right place. Extant research shows that to optimise performance of supply chain, information flows in supply chain must be improved. Geary et al. noted in 'information transparency principle' that if all the players can access up-to- minute data free of noise and bias then information delays and double guessing by other players can be significantly reduced. (Geary S, 2006). In a study done by Frank et al., it was concluded that centralising customer demand information can significantly reduce bullwhip effect.(Frank Chen, 1999). Elaborating on process redesign, Ackere Van et al. concluded that change of design of physical process, change of design of information channels and change of design of decision process will minimise bullwhip effect. (Ackere Van, 1993).

RFID

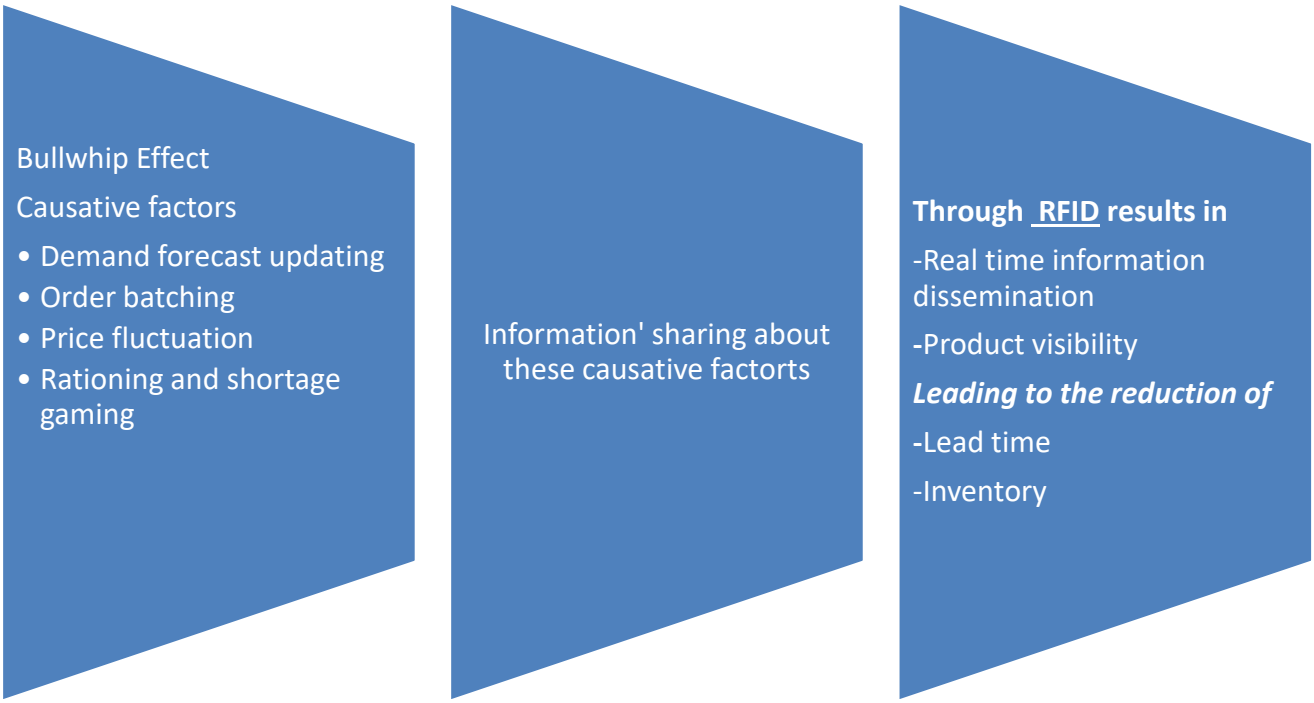
Radio Frequency Identification (RFID), a technology that works using radio waves, consists of radio frequency tag attached to the item being tracked and a radio frequency reader/emitter. "Radio Frequency Identification is a technology that enables large amount of data to be stored on chips (tags/transponders) that can be read at a distance by readers without requiring line of sight scanning"(Wisner, 2012). By linking an item to a digital ID all entities of the supply chain linked to a centralised information system can have instant access to the information about its location. RFID makes it possible to track in real time movement of items along the supply chain.(Glover Bill, 2006).

RFID has applications ranging from manufacturing and distribution of physical goods to minting bank notes, oil exploration, shipping, pharmaceutical packaging, etc. RFID frees human labour from certain work flows and gives information visibility to all the participants in the supply chain. (Angels, 2005).

A study done in an FMCG supply chain in Jiangsu, China showed that successful deployment of RFID will provide real time visibility of supply chain and reduces the bullwhip effect to a great extent, thus increasing the profitability of the chain. (Zhigang). Another study done on an Italian FMCG supply chain also proved the same that real-time visibility of the supply chain, brought in by RFID can dramatically reduce the bullwhip effect.(Eleonara Bottani, April 2010). RFID can improve the efficiency of total product lifecycle management extending to manufacturing and after sales support. (Ozer, 2007).

CONNECTING THE THREE

FIGURE 1: CONNECTING THE THREE



Source: Secondary data analysis

Information sharing can be effective and less disruptive when done using technology tools. RFID enables tracking of all the required information in real time i.e., as and when it is happening. It produces accurate information about in-transit inventory as well as finished goods inventory. This helps in reliable demand planning as human errors are eliminated.

Visibility means fully knowing the status of a shipment at every step of its journey – where, when and how. The attached electronic tags or chips make it easier and super-fast to access any kind of information related to the shipment be it at the customer level, retailer level, manufacturer level or at the supplier level. Such information is updated to the collaborative participants of the supply chain in real time.

Quality of information shared greatly influences the performance of inventory management techniques.(Sahin, 2002). Quality here means the degree to which information represents reality. RFID technology enables capturing of such real time data from the point where it is generated and instant dissemination of the same to the concerned supply chain participants who will update their inventories accordingly. Thus, lead time required to replenish inventory is reduced.

LIMITATIONS OF RFID

RFID by itself is not a panacea for all the information related problems of a supply chain. Information sharing using RFID is subject to the willingness of the supply chain partners to part with information. Once consensus is reached regarding information sharing the next hurdle in RFID adoption is the cost factor. Although it provides long term benefits firms may be required to forgo their current profits to invest in initial technological set up. Also, there are a number of vendors offering end to end solutions as there is no standard 'one-size-fits-all' kind of RFID solution to information problems in a supply chain. As with all other technological innovations, security and privacy threats are a big concern unless a foolproof system is developed and tested.

CONCLUSION

Clear understanding of factors causing bullwhip effect will direct supply chain partners towards mitigating the effect. Sharing customer demand information at the downstream end with the upstream end of the supply chain will reduce repetitive processing of demand data.

RFID is surely a better and smarter way to share such information and minimise bullwhip effect. It can be successfully deployed to track shipments, schedule product deliveries, maintain appropriate inventory levels and to reduce lead times. Supply chain partners can achieve higher levels of optimization through RFID.

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A STUDY ON CUSTOMER PERCEPTION TOWARDS ONLINE ADVERTISEMENTS AN EMPIRICAL STUDY IN VIJAYAWADA

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ABSTRACT

Online advertising used to be synonymous with print and TV ads. But mobile, programmatic, and online advertising have created new ways to engage with consumers. Explore the latest digital advertising trends and insights from industry leaders to build a cutting-edge marketing strategy. Advertising has come a long way today. More and more new medium is being explored each day to make a successful advertising campaign. Internet that has in recent times picked up as advertising medium has become the favourite of the advertiser in no time. Online advertisement, also called internet advertising uses the internet to deliver promotional marketing messages to consumers. It includes email marketing, search engine marketing, social media marketing, many types of display advertising (including web banner advertising), and mobile advertising. Online advertising will help the customers to check the local businesses to their flexible time and no need to wait to see newspapers and TV for offers. This paper dives into the study on customer perception towards online advertisements an empirical study on Vijayawada.

KEYWORDS

TV advertisement, online advertising, newspaper advertisement, gross domestic product.

INTRODUCTION

The Indian advertising industry has evolved from being a small-scaled business to a full-fledged industry. The advertising industry is projected to be the second fastest growing advertising market in Asia after China. It is estimated that by 2018, the share of ad spend in India's Gross Domestic Product (GDP) will be around 0.45 percent. The Indian government has given tremendous support to the advertising and marketing industry. Advertising expenditure is likely to increase in the financial sector, driven by Reserve Bank of India (RBI) policies which could result in a more favourable business environment. Also, proposed licenses for new banks and better market sentiments render the advertising and marketing industry in India a fertile space.

RESEARCH PROBLEM

Review of literature and all the secondary data says about the gap between the customers and online advertising. The researcher came to know that there is no proper awareness among people in Vijayawada. India is focusing on digital India wants to every information and service reached to every citizen in India. Now Vijayawada is the capital city of newly formed state and here having high literacy rate. Hence that gap must be identified, if there is any awareness among them about the Online advertising in the locality of Vijayawada.

OBJECTIVES OF THE STUDY

1. To know the medium that educates a customer most.
2. To compare the difference, advertise medium in terms of their reach to the customer.
3. To study the impact of online advertisements in creating the customer awareness.

HYPOTHESIS OF THE STUDY

H_{01}: There is no impact of online advertising on customer awareness.
H_1: There is an impact of online advertising on customer awareness.
H_{02}: There is no significant difference between customer awareness and demographic details of them.
H_2: There is significant difference between customer awareness and demographic details of them.

DELIVERY METHODS OF ONLINE ADVERTISING

Different delivery methods are consisting in online advertising. They are given below:

- Display advertising
- Interstitial
- Search engine marketing (SEM)
- Social media marketing
- Mobile advertising
- Email advertising
- Online classified advertising
- Adware
- Affiliate marketing
- Content Marketing
- Online marketing platform

REASONS FOR UNDERTAKING THE RESEARCH

To identify the people perception towards online advertisements. Most of the people having smart phones, laptops and desktops. But, how many are there aware of online advertising. They should know about the online advertising medium compared to all advertising medium. It is so quick and easy way to know the information. Vijayawada is the city which is being developed recently and also the seeding capital of newly formed Andhra Pradesh (2014). These reasons are behind this undertaking the research.

MARKET SIZE

India's Advertising industry is expected to grow at a rate of 16.8 per cent year-on-year to Rs 51,365 crores (US$ 7.61 billion) in 2016, buoyed by positive industry sentiment and a strong GDP growth of 7 per cent and above. India's digital advertising market has grown at a fast pace of 33 per cent annually between 2010 and 2015, while spending as a percentage of total advertising increased to 13 per cent or nearly US$ 1 billion in 2015. Print contributes a significant portion to the total advertising revenue, accounting for almost 41.2 per cent, whereas TV contributes 38.2 per cent, and digital contributes 11 per cent of the total revenue. Outdoor, Radio and Cinema make up the balance 10%. Of the current Rs 2,750 crores (US$ 407.66 million) digital advertisement market, search and display contribute the most - search advertisements constitute 38 per cent of total advertisement spends followed by display advertisement at 29 per cent, as per the study. The Internet's share in total advertising revenue is anticipated to grow twofold from eight per cent in 2013 to 16 per cent in 2018. Online advertising, which was estimated at Rs 2,900 crores (US$ 429.9 million) in 2013, could jump threefold to Rs 10,000 crores (US$ 1.48 billion) in five years, increasing at a compound annual rate of 28 per cent.

REVIEW OF LITERATURE

RISE OF ONLINE ADVERTISING IN INDIA BY PALLAVI MISHRA: Online advertising is a comparatively nascent phenomenon for Indian advertising industry but has shown immense potential in its early years and is envisaged to give all other advertising mediums a run for their money in the near future. Internet has inculcated various new and exciting dimensions to advertising providing advertisers with tools to capture attention of target audiences with greater accuracy and efficacy. The fact in favor of India is that most of the western developed economies have become saturated with negligible growth potential while India has vast untapped markets and enormous growth potential. Now to exploit the vast potential of internet. This is not an easy task given the complex demographic variables like socio-cultural, linguistic and religious diversity of India, highly skewed per capita income, urban rural divide, etc.

A STUDY ON IMPACT OF ONLINE ADVERTISING ON CONSUMER BEHAVIOR (WITH SPECIAL REFERENCE TO E-MAILS) BY SRIVASTAVA PRIYANKA: The size and range of online advertisement is increasing dramatically. The purpose of this study is to analyze different types of online advertising and explore how online advertisements affect consumers purchasing behaviour. The study of consumer behaviour became a concern for marketers, as they may learn how consumers choose their goods and services required to meet multiple needs, which are the factors that are influencing their choice. As more and more sellers begin to doubt the effectiveness of broadcast advertising on the Internet that simply flashes banner advertisements, have to rely on different revenue sources. As a result, there will be reduced outlets for broadcast-based advertising in the future. An alternative is targeted advertising.

A STUDY ON NEWSPAPER ADVERTISING AND ITS ADVANTAGES AND DISADVANTAGES BY MIKE BRASSIL: The research study has focused on urban consumers of above 18 years of age. So that they can recall the reasons, which affect their perception of Internet advertisements. This research studied the psychology behind online consumer's behaviour & also their perception of Internet advertisements. It also seeks the effect of Internet ads on the attitude of online consumers. A cluster sampling has been used. A total number of 100 respondents were surveyed. 50 respondents from Rajaji Puram, Lucknow and 50 from Alambagh, Lucknow. The study has confined to urban areas as it assumed that the rural areas do not have Internet connection yet. Hence the entire findings are limited and refer to urban consumers only. Geographical coverage, as only two areas have been taken from Lucknow, India. It is not sure whether the findings will apply to the whole country. Respondents below 18 years of age were not included in the present study, as it was assumed that respondents of the age 18 years & above can answer questions relating to Internet advertising.

Paid-circulation newspapers are a popular advertising medium for most local businesses. They are the oldest forms of mass media, and they continue to be one of the largest, as measured by volume of advertising dollars. Industry giants, as well as the local convenience stores, use newspapers to advertise. Even though the newspaper no longer enjoys its former role as the almost exclusive source of news, they still remain a strong factor in their specific sphere of influence.

METHODOLOGY

RESEARCH DESIGN

This study was conducted in two stages. In the first stage, an exploratory study was carried out to identify the different age groups of people which are located in the area of Vijayawada. I consulted the people with my questionnaire for this survey. In the second stage, data collection was made by self-administering structured questionnaires to 100 respondents from different age groups located in the city of Vijayawada.

DATA COLLECTION

Population of the Study

Population for this study can be identified as the different age groups of people located in the city of Vijayawada.

Sample Design

A sample design is the framework or road map that serves as the basis of sample selection. The sample for the study was respondents from different age groups.

Sampling Frame

All the people of different age groups are taken as the sample frame for this study.

Sampling Unit

Sample unit identified for this study is the different age group of people located in Vijayawada.

Sampling Technique

In this study judgmental sampling technique on the basis of geographical location was adopted for data collection. To ensure randomness in the sample 100 unit respondents were chosen as mentioned above.

Sample size

As a result, of data collection out of 100 questionnaires circulated, only 100 fully filled in questionnaires were received.

Data Collection Procedure

The data collection process focused on all the different age of people with a structured and self-administered questionnaire. Below sections provide the process of scale adoption.

Survey Instrument

A structured and self-administered questionnaire is designed for collecting data from the respondents. This questionnaire comprises questions that can be easily answered on the five-point Likert scale and open ended questions.

Pre Testing of Questionnaire: The questionnaire was pretested to ensure to that all the questions were well understood. First we conducted on a group of 30 they were asked various questions and the answer was recorded. These were used to frame the questionnaire which was used in research.

Reliability the Scale: The reliability of the questionnaire is tested by Chronbach's Alfa which for the present study is found out to be 0.75 which is inacceptable range.

Statistical Software Used: To analyses the data and test the maintained hypothesis statistical software package SPSS was utilized

Research Gap: This study is undertaken to customer perception towards online advertisements an empirical study on Vijayawada.

Tools for data collection: For data collection I selected the source called primary data. I collected the data through questionnaire.

Tools used for data analysis: Descriptive, Frequencies, Histograms, Chi-Square test.

DATA ANALYSIS

Customer perception towards online advertisements:

Sample data

As a result, of data collection out of 100 questionnaires circulated, only 100 fully filled in questionnaires were received.

TABLE 1: IN THIS DATA THE AGE GROUP IS DIFFERENT

0	20 people
20-40	63 people
Above 40	17 people

Descriptive Statistics

Frequencies

1. Statistics for first five questions in questionnaire

TABLE 2: STATISTICS OF QUESTIONNAIRE

Statistics

		Doyouthinkpromotionthroughsocialnetworkingwebsiteswillb	Companiesshouldduseonlineservicesintheirmarketingefforts	IdontpreferthepritntadsorTelevisioncommercialsmuchtog	Onlytargetpeoplewillviewonlineadvertising	Onlineadvertisinghelpstoknowlocalbusinessoffersacrossth
N	Valid	100	100	100	100	100
	Missing	0	0	0	0	0
Mean		1.800	1.880	1.820	1.890	1.960
Median		2.000	2.000	2.000	2.000	2.000
Mode		2.0	1.0	1.0	1.0	1.0
Std. Deviation		.8762	1.0472	1.0287	1.0337	1.1184
Variance		.768	1.097	1.058	1.069	1.251

2. Statistics for second five questions in questionnaire

TABLE 3: STATISTICS OF QUESTIONNAIRE

		Ifyouareusinginternetthenonlineadvertisingwilleffecton	SomuchofTVadvertisinggettingirritation	WhenIwanttobuyanynewproductthenIprefercheckonlineon	Doestheonlineadvertisingattractsyoutopurchaseitemsfrom	IpreferonlineadvertisingasitisSAFESTtouse
N	Valid	100	100	100	100	100
	Missing	0	0	0	0	0
Mean		1.890	1.830	1.910	2.020	1.950
Median		2.000	2.000	2.000	2.000	2.000
Mode		1.0	1.0	1.0	1.0	1.0
Std. Deviation		.9939	.9955	1.0833	1.1369	1.1492
Variance		.988	.991	1.174	1.293	1.321

3. Statistics for third five questions in questionnaire

TABLE 4: STATISTICS OF QUESTIONNAIRE

		Onlineadvertisingwillflexibleyourtimetoseeoffers	Doyouthinkthefollowingfactorsarebenefitstolocalbusines	Doyouthinkthefollowingfactorsarebenefitstolocalbusines	Doyouthinkthefollowingfactorsarebenefitstolocalbusines	Doyouthinkthefollowingfactorsarebenefitstolocalbusines
N	Valid	100	97	97	96	96
	Missing	0	3	3	4	4
Mean		1.830	1.52	1.63	1.67	1.74
Median		1.000	1.00	1.00	1.00	2.00
Mode		1.0	1	1	1	1
Std. Deviation		1.0642	.779	.782	.804	.849
Variance		1.132	.607	.611	.646	.721

FREQUENCY TABLES

TABLE 5.1: AGE GROUPS OF RESPONDENTS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Online advertising	32	32.0	32.0	32.0
	Through Advertisement	25	25.0	25.0	57.0
	Through Friends & Relatives	33	33.0	33.0	90.0
	Through Hoardings / Newspaper	10	10.0	10.0	100.0
	Total	100	100.0	100.0	

TABLE 5.2

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	20-40	63	63.0	63.0	63.0
	above 40	17	17.0	17.0	80.0
	below 20	20	20.0	20.0	100.0
	Total	100	100.0	100.0	

From the above table, we can see that 63% of respondents are 20-40 age groups and 17% are above 40 years and 20% are of below 20.

Do you frequently visit local business?

TABLE 6: FREQUENCY TABLE FOR VISITING LOCAL BUSINESS

		Frequency	**Percent**	**Valid Percent**	**Cumulative Percent**
Valid	Maybe	20	20.0	20.0	20.0
	No	18	18.0	18.0	38.0
	Yes	62	62.0	62.0	100.0
	Total	100	100.0	100.0	

From the above table, we can see that 62% of respondents said yes for frequent visits to the store, 18% said that they won't go and rest were neutral

TABLE 7: FREQUENCY TABLE FOR REASON

Reason for your visit					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Discount Offers	49	49.0	49.0	49.0
	e-commerce	1	1.0	1.0	50.0
	Location of the Store	14	14.0	14.0	64.0
	Promotional Offers	23	23.0	23.0	87.0
	Range of Items	13	13.0	13.0	100.0
	Total	100	100.0	100.0	

From the above table, we can see that 49% of respondents are Discount offers, only 1% of the respondents opted for e-commerce and 23% respondents were for promotional offers

How do you come to know about offers?

TABLE 8: FREQUENCY TABLE FOR KNOWING ABOUT OFFERS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	41	41.0	41.0	41.0
	Agree	45	45.0	45.0	86.0
	No opinion	9	9.0	9.0	95.0
	Disagree	3	3.0	3.0	98.0
	Strongly disagree	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

From the above table, we can see that equal number of respondents choose online advertising and friends as a media about offers and 25% through advertise-ments

Promotion.

CHART 1: PROMOTION THROUGH SOCIAL NETWORKING SITES

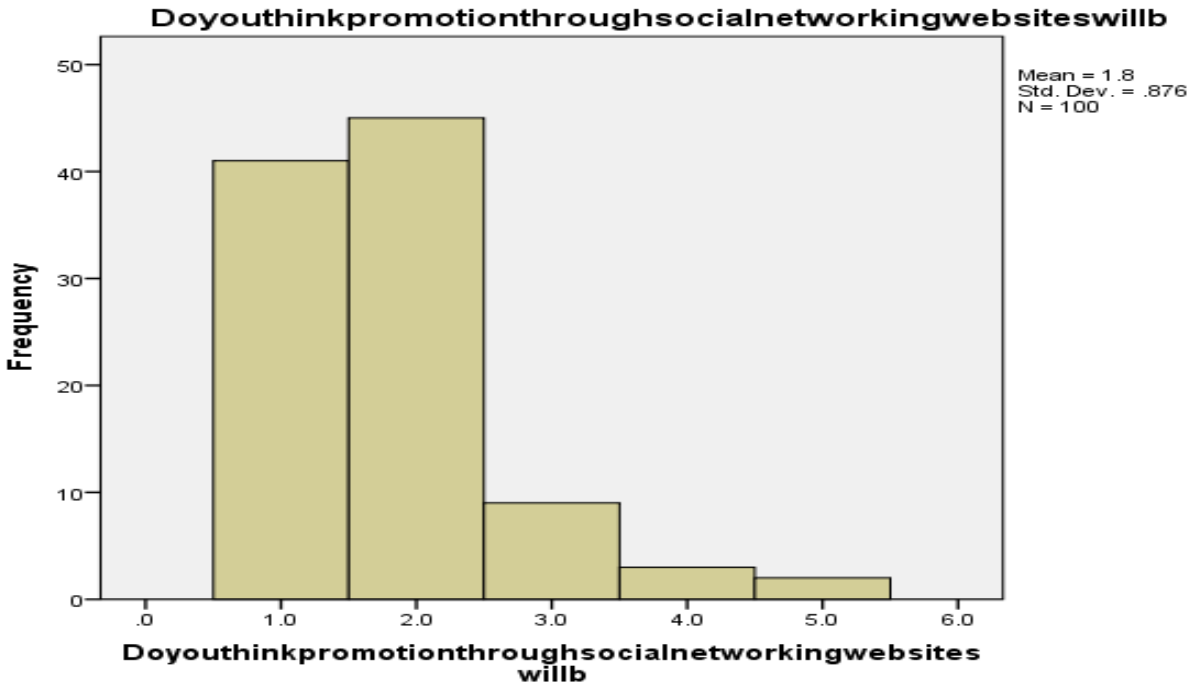
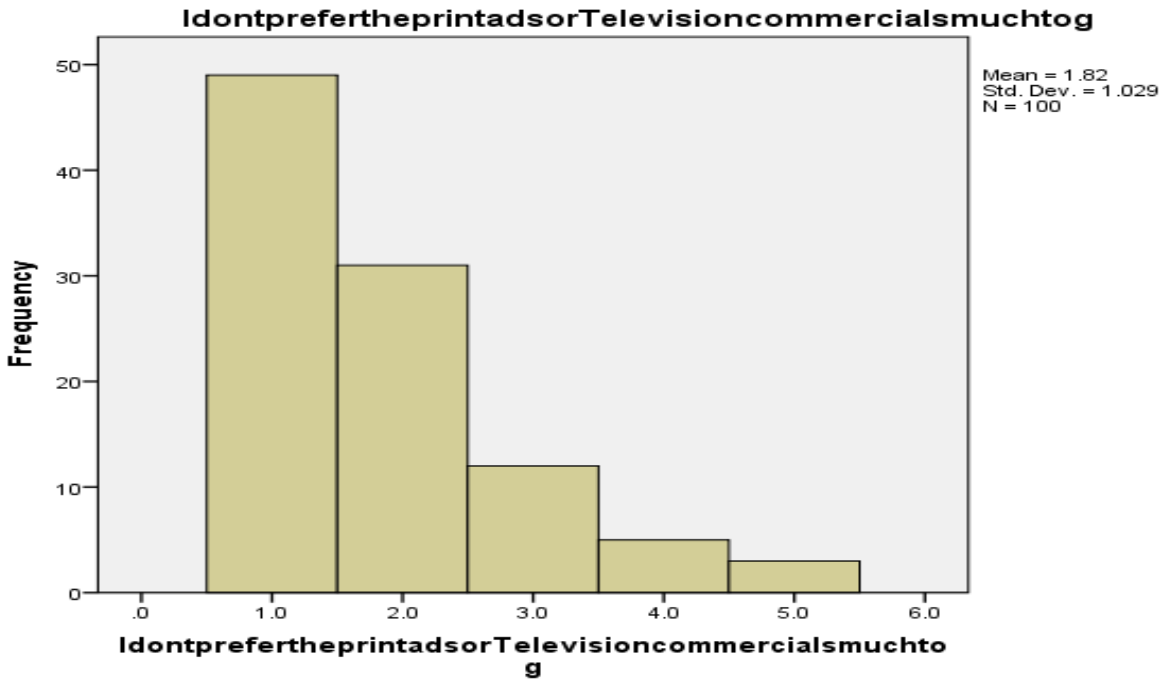


TABLE 9: DON'T PREFER

From the above table, we can see that 86% of respondents agreed that promotion through social networking sites will make an impact on costumer.
I don't prefer the print ads or Television commercials much

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	49	49.0	49.0	49.0
	Agree	31	31.0	31.0	80.0
	No opinion	12	12.0	12.0	92.0
	Disagree	5	5.0	5.0	97.0
	Strongly disagree	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

CHART 2

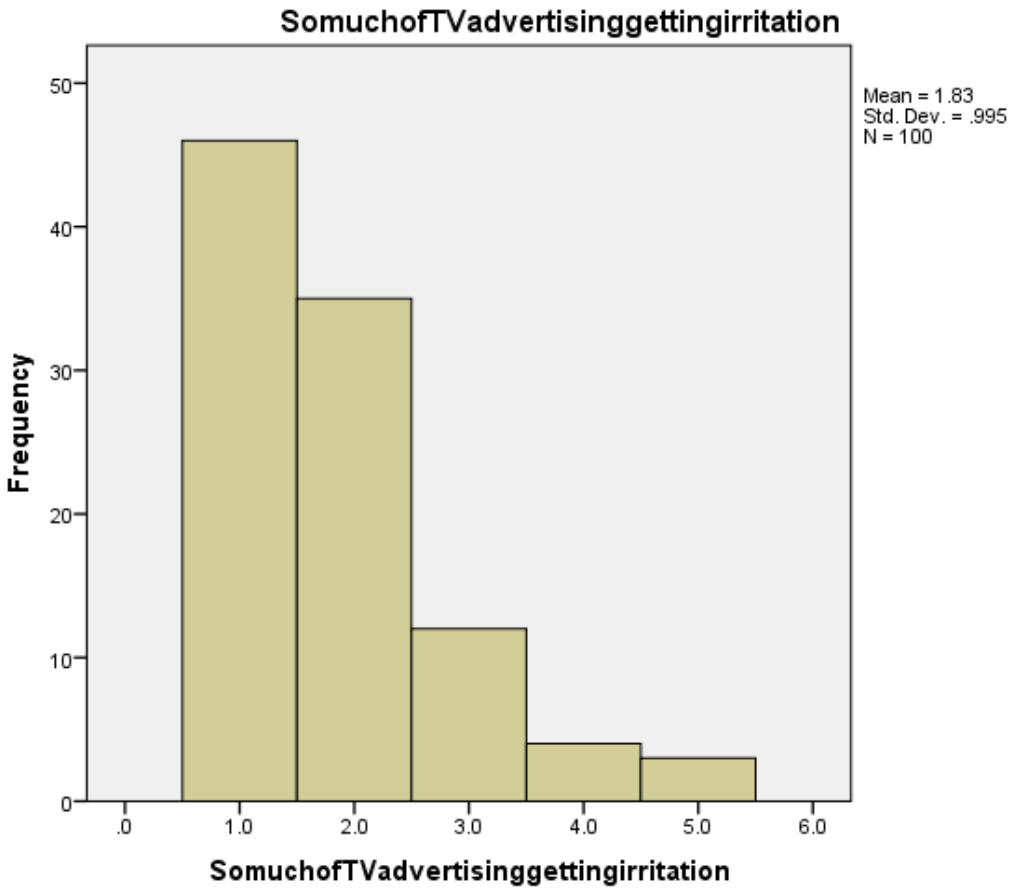


From the above table, 80% of respondents were accepting that they won't prefer television commercials much.
So much of TV advertising getting irritation

TABLE 10: IRRITATION

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	46	46.0	46.0	46.0
	Agree	35	35.0	35.0	81.0
	No opinion	12	12.0	12.0	93.0
	Disagree	4	4.0	4.0	97.0
	Strongly disagree	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

CHART 3

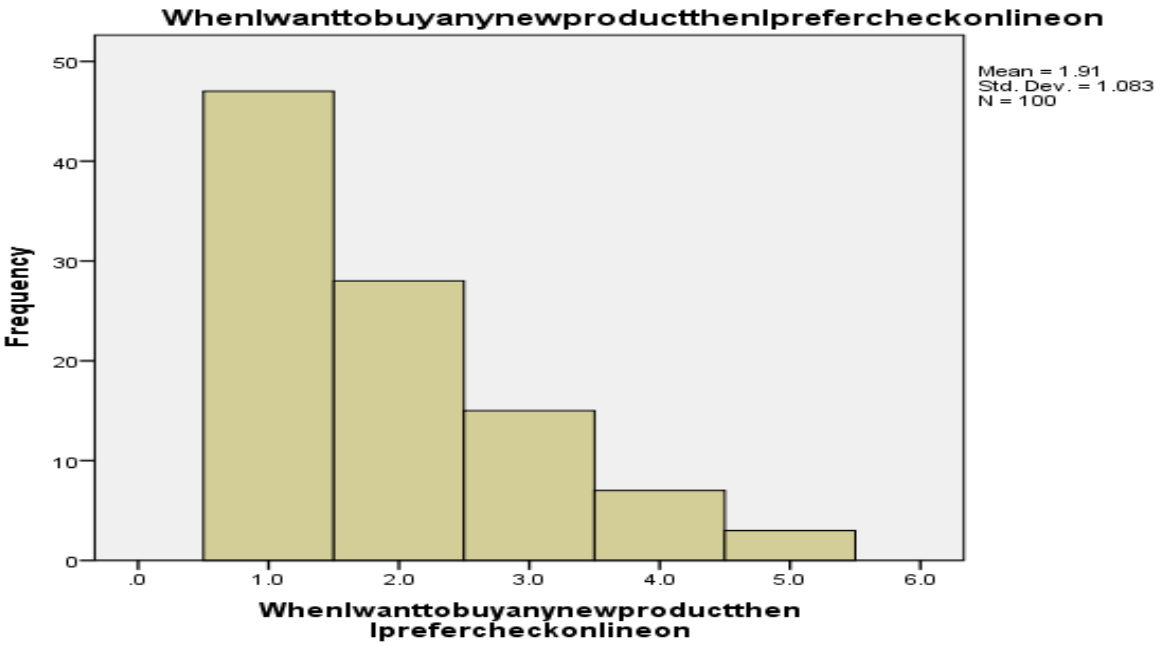


From the above table, we can see that 81% of respondents agreed that they are irritated by TV ads frequently. 12% were neutral and the rest disagreed When I want to buy any new product then I prefer check online once.

TABLE 11: PREFER CHECK ONLINE ONCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	47	47.0	47.0	47.0
	Agree	28	28.0	28.0	75.0
	No opinion	15	15.0	15.0	90.0
	Disagree	7	7.0	7.0	97.0
	Strongly disagree	3	3.0	3.0	100.0
	Total	100	100.0	100.0	

CHART 4



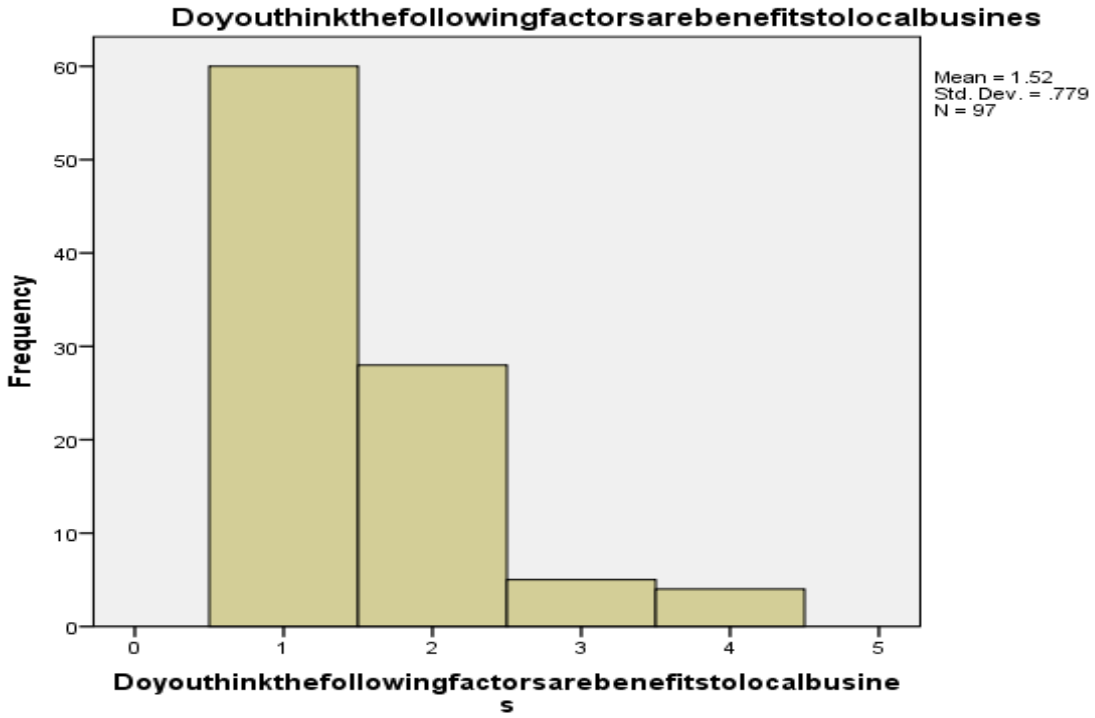
From the above table, we can see that 75% of respondents agreed that they will check online for pre purchase of product for various reasons. 15% were neutral and the rest disagreed

a) Save time

TABLE 12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	60	60.0	61.9	61.9
	Agree	28	28.0	28.9	90.7
	No opinion	5	5.0	5.2	95.9
	Disagree	4	4.0	4.1	100.0
	Total	97	97.0	100.0	
Missing	System	3	3.0		
Total		100	100.0		

CHART 5



From the above table, we can see that 88% of respondents agreed that they are having an impact by online advertisements due to various reasons. 5% were neutral and the rest disagreed

b) Save money

CHART 6

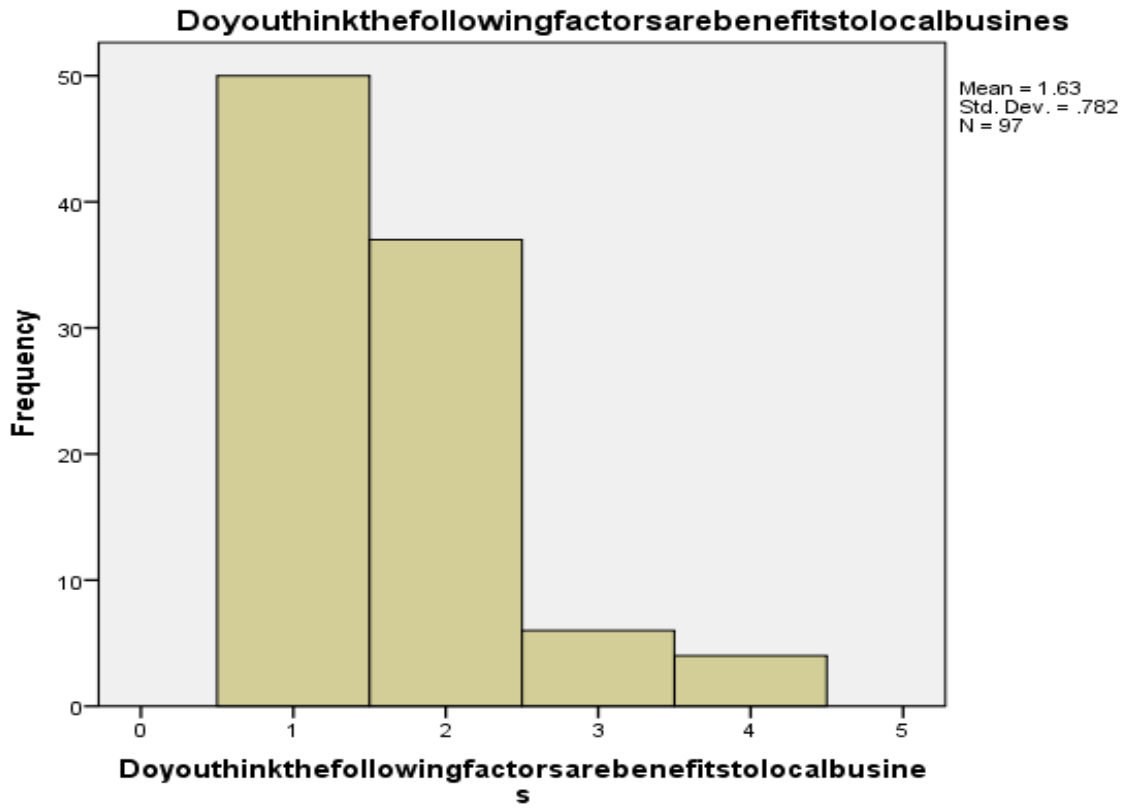


TABLE 13: SAVE MONEY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	50	50.0	51.5	51.5
	Agree	37	37.0	38.1	89.7
	No opinion	6	6.0	6.2	95.9
	Disagree	4	4.0	4.1	100.0
	Total	97	97.0	100.0	
Missing	System	3	3.0		
Total		100	100.0		

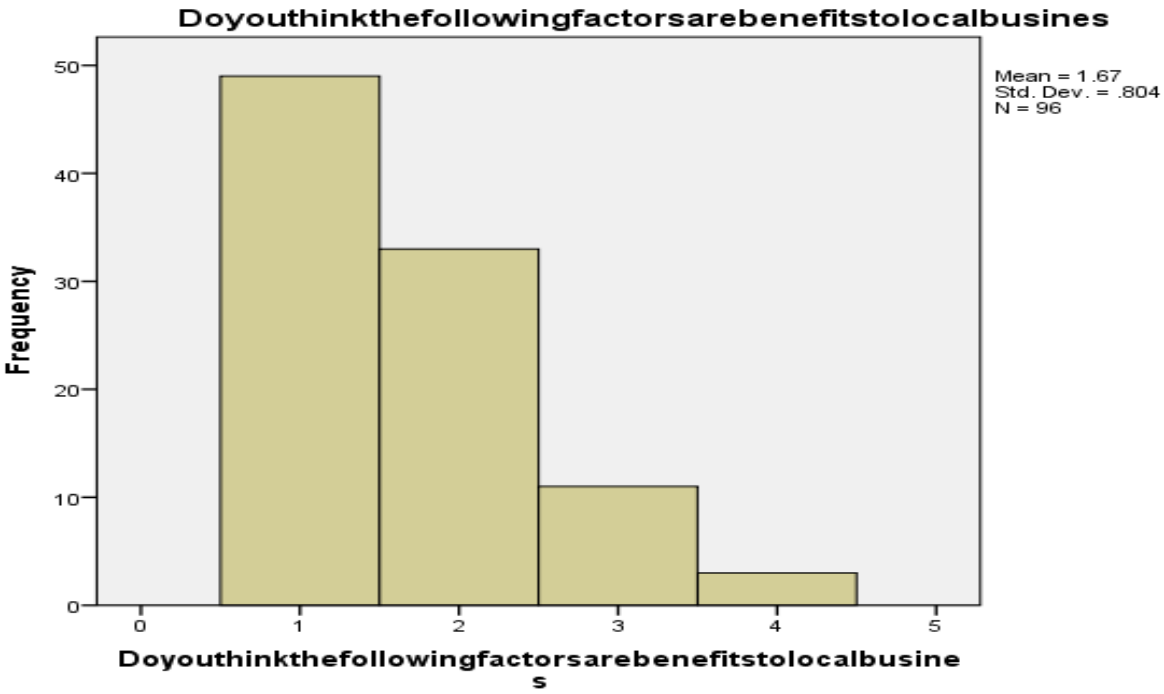
From the above table, we can see that 87% of respondents agreed that they are having an impact by online advertisements due to various reasons. 5% were neutral and the rest disagreed

c) Convenience

TABLE 14: CONVENIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	49	49.0	51.0	51.0
	Agree	33	33.0	34.4	85.4
	No opinion	11	11.0	11.5	96.9
	Disagree	3	3.0	3.1	100.0
	Total	96	96.0	100.0	
Missing	System	4	4.0		
Total		100	100.0		

CHART 7



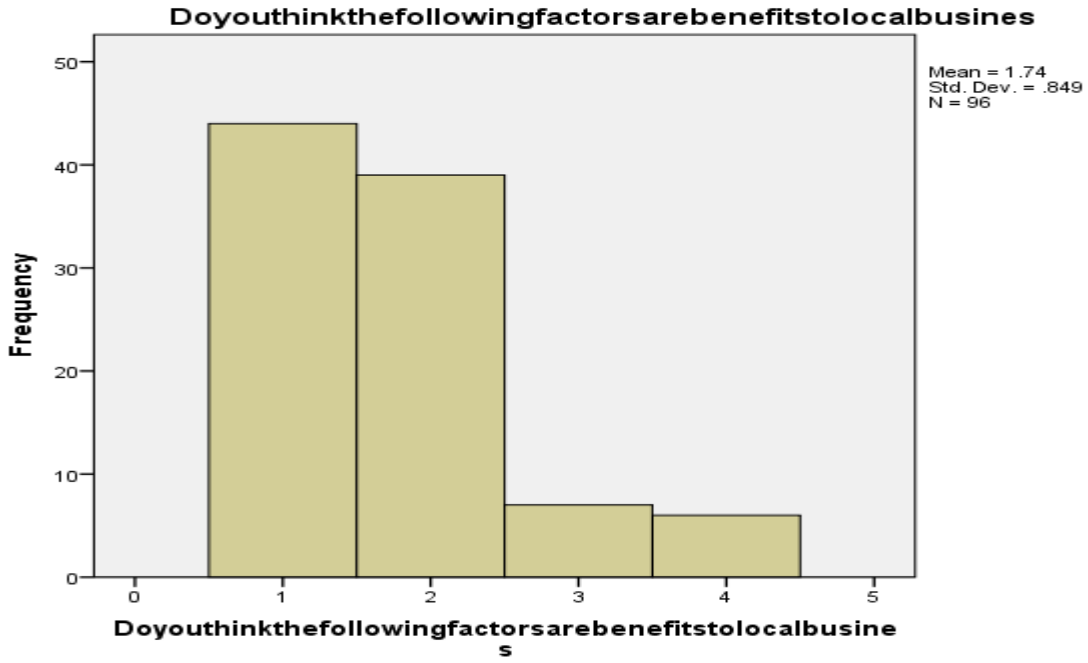
From the above table, we can see that 87% of respondents agreed that they are having an impact by online advertisements due to various reasons. 5% were neutral and the rest disagreed.

d) Easy way

TABLE 15: EASY WAYS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	44	44.0	45.8	45.8
	Agree	39	39.0	40.6	86.5
	No opinion	7	7.0	7.3	93.8
	Disagree	6	6.0	6.3	100.0
	Total	96	96.0	100.0	
Missing	System	4	4.0		
Total		100	100.0		

CHART 8



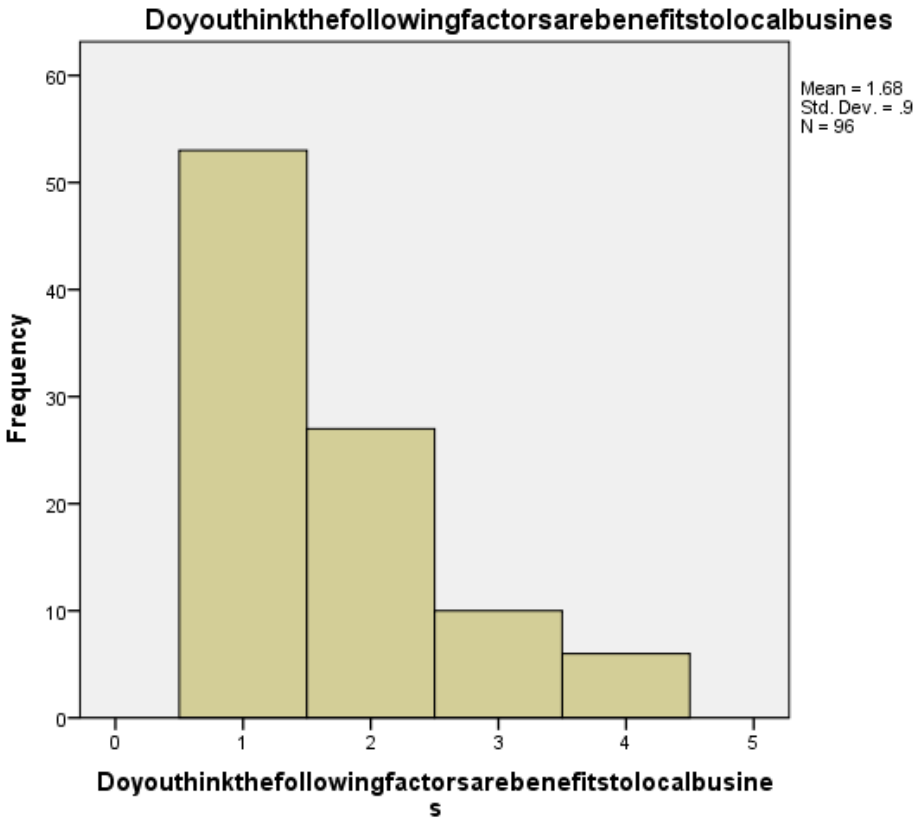
From the above table, we can see that 87% of respondents agreed that they are having an impact by online advertisements due to various reasons. 5% were neutral and the rest disagreed

e) Awareness

TABLE 16: AWARENESS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	53	53.0	55.2	55.2
	Agree	27	27.0	28.1	83.3
	No opinion	10	10.0	10.4	93.8
	Disagree	6	6.0	6.3	100.0
	Total	96	96.0	100.0	
Missing	System	4	4.0		
Total		100	100.0		

CHART 9



From the above table, we can see that 87% of respondents agreed that they are having an impact by online advertisements due to various reasons. 5% were neutral and the rest disagreed.

FINDINGS

The findings based on the primary data collected are listed here.

1. The numbers of respondents are saying that online advertising is best to knowing information compared to other medium.
2. Most of the respondents prefer promotion through social media will helpful for companies.
3. Out of the types of advertisements, online advertisements are preferred most next to television advertisements.
4. Most of the respondents think online advertisements will reach more effectively compared to other media.
5. Most of the respondents think online advertising will effects purchasing behaviour and mindset.
6. Most of the respondents think online advertising contains lot of benefits.
7. Most of the respondents prefer advertised products more than non-advertised products.
8. Most of the respondents thinks online advertising will help to save their time, money and etc.

SUGGESTIONS

1. The number of companies advertising online is soaring, but even then fraud and deception may reduce consumer confidence. Therefore, it should be ensured that products and services are described truthfully in online advertisements.
2. Trust or confidence can be built in online business by using testimonials with the permission of customers.
3. To avoid interference in work, advertisements should be designed to meet the preferences of target customers or target audience.
4. Use of multi-media' and use of banner advertisements give viewers a chance to interact with banners which helps in online advertising.

5. All age group are getting awareness of online advertising it will gives boost for online advertising media. It comes up with new strategies to make online advertising as simple.
6. Now a people in India are changing to digital India. It is best time to capture the market.

RECOMMENDATIONS

1. Online advertising needs to attract the above 40+ age people they thinking other medium is best for advertising for products there percentage is very less but we need to find solution.
2. Respondents are attracts only for offers advertisements in online advertising. So, online advertising have to increase these type of promotions for companies
3. Most of saying they knowing information through friends and relatives. Increase more ways to engage people to online advertising.
4. Most of the people thinking online advertising is better compared to all medium. But, we have to maintain that standards to remove fraud advertisements.
5. Governments also increase their promotions through online advertising to aware of their schemes to people.

CONCLUSION

The study titled 'customer perception towards online advertisements' reveals that the most effective media of advertising is online advertising. Internet advertising offers increased awareness of companies, an easy method to distribute information, advanced methods of targeting consumers, an immediate and direct line to the customers, and reduced costs in performing these tasks. The main problem related to this is the interference of online advertisements in the work of people and the fear of falling prey to online advertising fraud and malpractice. As people get more accustomed to finding product information on the web, more and more readers will actively seek out Internet advertising sites.

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STORY TELLING METHOD: AN INSTRUCTION AID FOR TEACHING & LEARNING: A LITERATURE REVIEW

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ABSTRACT

It is found that the story telling method, is indeed an effective instruction aid for teaching and learning. Storytelling is a viable method for stimulating children's imaginations and ultimately leading to a higher cognitive level in student responses. Therefore, the present education system should encourage the use of the aid in the classroom settings in higher classes too so as to further enhance leaning to take place in students along with other teaching aids and methods. Teacher education should be encouraged to further research and explore the wide areas of storytelling method, with other related variables.

KEYWORDS

teaching aids, story telling method.

INTRODUCTION

Stories form an integral part and are deep rooted, in almost all culture, tradition and across the races. Story telling or listening to stories is a part of human nature and will continue to remain so till apocalypse. In fact stories in each culture safeguard and display beliefs, rules of that society. Jung (1969) identifies a series of specific and formal elements within world mythologies that have become primary archetypes. Each archetype represents a core psychological function common to all humans, they become heroes in their own right either for what is view as good or bad demonstrating and encouraging inculcation of particular virtues or desirable traits of character, such as honesty, civility, courage, perseverance, loyalty, self-restraint, compassion, tolerance, fairness, respect for the worth and dignity of the individual, responsibility for the common good, and so forth Leming 1996; Lickona 1991).

Our modern literate culture retains oral practices and narrative continues to play a vital role in teaching and learning (McEwan, and Egan, 1995) as they form the intellectual and practical nourishment of oral cultures. It is not just a manner of speaking but foundational to learning as a whole. Through storytelling individuals can learn to express themselves and make sense of the external world. Clandinin and Connelly (2000).

Various definitions are coined to define 'Storytelling' method, and is said to be an effective tool and an instruction aid for teaching & Learning. Egan, (1995 & 1999) defined storytelling, as a linguistic activity or an educative ability that allows individuals to share their personal understanding with others, thereby creating negotiated transactions. Acc to Bruner (1986) storytelling is a socially desirable and accepted way to express an individual's personal experience. Though having its own effectiveness it is light weighted and has not received much due importance as an instruction aid for teaching and learning. The present paper is an attempt to highlight the effectiveness and importance of story –telling method, as an instruction aid for teaching learning.

PAST RESEARCHES

It has been an area of interest but not much explored, in recent years, the reflective movement has done much to advance the notion that we each carry within us creative learning capabilities. Storytelling is one of these capabilities and when it is used in thoughtful, reflective and formalized ways, significant learning is possible Clandinin and Connelly (1998); McDrury and Alterio, (2002); McEwan and Egan(1995); Pendlebury (1995); Witherell & Nodding, (1991).

Storytelling also has the capacity to support and enhance the relationship between students creating new knowledge and learning from others. In addition, sharing and reflectively processing stories provides students with opportunities to develop authentic relationships with their peers. Storytelling is an ideal teaching and learning tool, for it takes seriously the need for students to make sense of experience, using their own culturally generated sense-making processes (Bishop and Glynn, 1999).

According to Beatty, (2000); and Mulligan, (1993) story telling method as a culturally situated, collaborative and reflective learning and teaching tool, it addresses educator's concerns regarding how to encourage students to integrate feeling and thought, the subjective and objective ways in which we make judgments' about our world.

Alparaque (1988) notes another important benefit related to the development of the appreciation of literature—the power of storytelling to bind attention and to bridge real and imaginary worlds.

Wyatt, et al. (1986) describes the application of storytelling in teaching children to write as though they were doing so for media.

George and Schaer (1986) investigated the effects of three mediums for presenting literature to children
and discovered that storytelling and dramatization were significantly more effective in facilitating recall of prose content than was television. These findings indicated that storytelling is a viable method for stimulating children's imaginations, ultimately leading to a higher cognitive level in student responses.

Reinehr (1987) discussed ways to use mythic literature to teach children about themselves and to help
them write their own stories and legends. For very young children, the sequencing of events or the shaping of stories may be difficult, as children tend to ramble. However, sharing stories can give youngsters more of a "sense of story"—an awareness that can help them in both reading and writing.

In reading, for example, a sense of story can help children to predict and know what to expect, and to read with more awareness of cause and effect, sequence, and other story factors related to comprehension Kempter (1986); Trabasso & Van Den Broek (1985).

In writing, children learn to apply such structures while telling their own stories and giving shape to their experiences. Tway (1985)

Narrative is a powerful tool for teaching and learning. Joanna.S & Mindy.T (2013).

CONCLUSION

From the above, we can conclude with the parallel findings by George and Schaer (1986) that story telling method, is indeed an effective instruction aid for teaching and learning. Storytelling is a viable method for stimulating children's imaginations and ultimately leading to a higher cognitive level in student responses. Therefore, the present education system should encourage the use of the aid in the classroom settings in higher classes too so as to further enhance leaning to take place in students along with other teaching aids and methods. Teacher education should be encouraged to further research and explore the wide areas of storytelling method, with other related variables.

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LIBRARIES Vs. INTERNET

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ABSTRACT

Internet is playing very important role in human life, anyone can access required information within second through Internet, but it cannot become substitute of Libraries because internet information is not always authentic or reliable. Also internet involves huge amount to require for purchasing instrument for accessing internet and it is unable to reach the masses. Library can use Internet Services as a helping hand to get share information but it cannot replace the signification of newsgroup, discussion form, sharing of books, which makes libraries exceptional.

KEYWORDS

libraries, internet services.

INTRODUCTION

Today life is depending upon Internet any information which we want to access is easily accessible through Internet. Internet is better than libraries or libraries are good source of information than internet. No doubt internet provides huge amount of information but it can be reliable and authentic or not who will it. If anyone gets wrong information through internet he or she may be misguided but libraries are that places which are providing right information even consulting internet.

OBJECTIVES OF THE STUDY

1. To determine the factor that encourage or discourage the students from using libraries.
2. To investigate the frequency and purpose of Internet use.
3. To find out the extent to which the Internet help students in their academic work.
4. To determine the extent to which graduate student use the Internet more than the library.
5. To find out what type of need influence the selection of one information source over the other.
6. To determine problems students, face when using the Internet and the library.
7. To make recommendations for effective use of these sources.

RESEARCH METHODOLOGY OF THE STUDY

This study adopted the comparative research method to compare library and Internet use. Research may examine differences and similarities between the variables of the study. It examines differences between people who may belong to the same dominant culture. The researcher collected data on students. The data measured their Internet use and library use.

ANALYSIS

INTERNET

The internet is a global network connecting millions of computers. More than countries are linked into exchange of data, news & opinions. Digital in 2017 Global overview report from more than half of the world's population now uses the internet. According to Internet world stars as of June 2017, there was an estimated about 3.2 billion Internet users are worldwide. This represents 51% of the world population. Unlike online services, which are centrally controlled, the internet is decentralized by design. Each internet computer, called a host, is independent. Its operators can choose which internet services to use and which local services to make available to the global internet community. There are a variety of ways to access the internet. Most online services offer access through a commercial internet Service Provider (ISP).

ACCESS TO INTERNET

There are four ingredients needed to access the Internet

- Internet Service Provider
- Modem
- Web Brower
- E-Mail

Internet Service Provider: Access to the internet is through an Internet Service Provider, which can be a large company such as America Online or MSN, or any of hundreds of smaller ISPs throughout the country with unlimited access for a fixed rate per month.

Modem: Depending of the kind of service, a unit of hardware called a 'modem' for connection. Slow-speed dial –up telephone access uses an analog modem, which may already be installed in computer. If not, one can be plugged into the USB port. Cable or DSL service, which is from 40 to 100 times faster than telephone dial-up, your provider may send appropriate modem, or can be purchased it at local electronics store. Quite simply, opt for the high speed service. Dial-up modems are an exercise in extreme patience.

Web Browser: The Mac comer with Safari. Windows and Mac users quite often choose different browser such as Firefox (www.mozilla.org) or Chrome (www.google.com/chrome), which offer additional features and are not as subject to attack by hackers. The first time you hook up to a new ISP, their assistance to configure the dial-up or networking software in computer. After that, all do is launch the browser to 'surf the Web.'

E-mail: Although e-mail can be sent and received using Web browser (see e-mail interfaces), computer may come with a dedicated e-mail programme like the ones found in smart phones. For example, the Mac comes with mail, while Windows has renamed its free program many times: Outlook Express, Window Mail, Window live Mail and Mail. However many users prefer Eudora, Thunderbird and other e-mail clients. The first time you connect to a new ISP, you may need help in configuring your e-mail programme to use their mail servers. From then on, you launch the mail program as you would any other application.

Social Impact: The internet has created new forums of social interaction and social relations including social networking websites such as Faced book and MySpace and sites such as meetup.com and Couch surfing which facilitate offline interaction. Though virtual communities were once thought to be composed of strictly virtual social ties, researchers often find that even those social ties formed in virtual spaces are often maintained both online and offline. There are ongoing debated about the impact of the Internet on strong and weak ties, whether the internet is creating more or less social capital, the internet's role in trends towards social isolation, and whether it creates a more or less diverse social environment.

INTERNET Vs. LIBRARIES

Internet Advantages

- Online resources can be accessed 24 hours a day, 7 days a week.
- Websites can be constantly updated to provide breaking was and timely information.
- Provides opportunities for two way communication through e-mail and newsgroups.
- Provides access to many newspapers, magazines, journals and encyclopedias.
- Some sites feature rare books, documents and special collection that traditionally have only been available in libraries.
- Offers a complete multimedia experience, with text, video, interactive features, audio, hyperlinks and graphics all in one place.

Library Advantage

- **Everything Is Not on Internet:** The internet consists of a small percentage of what's published. Search engines such as Google, Alta Vista and Yahoo are limited. ALA reports that only 8% of all journals and even fewer books and journals. Preliminary steps to find the appropriate search terms should start with print indexes and subject headings volume.
- **The Internet is not Organized:** There is not a system that catalogs and organizes all resources on the internet. A search on the Internet is similar to searching on unclassified catalogue. When you use any of the search engines, you are searching only part of internet. Searches are not always relevant to your topic and can cause a lot of wasted time, frustration and confusion.
- **The Internet Doesn't Have Quality Control:** Quality control isn't easy to achieve on the internet. Open Source information on the internet is quite common and easy to get misinformed information. Anyone with access to the internet can publish a Website.
- **Tuition and Fees Pay for Library Use:** Library resources are paid for with your tuition and fees, so take advantage of it. Libraries provide free access to scholarly books, journals, newspapers, encyclopedias and other print reference sources. A lot of information on the internet is FREE except scholarly material. A paid subscription is required to access.
- **Trained Professionals Available for Assistance:** Knowledgeable and friendly librarians are available to assist with locating information in person, chat, e-mail, or telephone. Request assistance at the beginning of your research and spare valuable time spent on the Internet.
- **E-books are Available:** E-books are full-text and searchable. Text can be searched automatically, and cross-referenced using hyperlinks. Dictionaries, reference works and some textbooks, benefit from search and cross-reference capabilities. Content is available 24/7.
- **The Internet has fewer Archival materials:** The library has older materials than the internet. Digitalization that goes back more than 10-15 years can be difficult to locate on the internet. The internet provides more timely information and is constantly updated.
- **Does Library-less Universities Work:** A virtual library cannot replace the traditional library. Only to find out first hand that it can't work.

CONCLUSION

At the end we conclude that Internet provides lot of information on any aspect but it is unorganized and it is very difficult for common user to access right information in right direction, therefore role of libraries is important for providing right direction to the common users. Libraries can play vital role for guiding the users to use resources or information through internet, users can get right information through libraries. So we can say they role of libraries is never ending in ICT, it has also increased and responsibilities of libraries also increased in ICT. Libraries are also accepting challenges of modern technologies with full confidence.

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CASHLESS SYSTEM: CHALLENGING STEP - A CASE STUDY OF SURIYA REGION

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ABSTRACT

A Cashless Economy is defined as a situation where there is very little flow of cash in the society and thus much of the purchase is done by the electronic sources. These sources can be debit cards, electronic fund transfer, mobile payment, internet banking etc. The system in which all the transactions are made using digital means. The circulation of physical currency is minimal. The RBI and the Govt. of India are making several efforts to reduce the use of cash in the economy by promoting the digital payments devices including prepaid instruments and cards. RBI's effort to encourage these new varieties of payment and settlement facilities aims to achieve to goal of a 'less cash' society. Here, the term less cash society and cashless transaction economy indicate the same thing of reducing cash transaction and settlement rather doing transaction digitally.

KEYWORDS

cashless economy, debit cards, electronic fund transfer, mobile payment, internet banking.

INTRODUCTION OF SURIYA

Suriya is a community development block that forms an administrative division in Suriya sub division consisting 23 panchayats of Giridih district in state of Jharkhand. As per 2011 census of India Suriya block had a total population of 1,49,068 of which 1,30,115 were rural and 18,933 were urban. Barki Suriya is a census town in Suriya block. As per 2011 census the total number of literate in this block was 80,489 out of which 50,520 were males and 29,969 were female. Temple Rajdah Dham of lord Shiva nearby Barakar River is famous place. Hazaribag Road is a railway station on the Grand Chord line of East Central Railway is locally known as Suriya.

MEANING OF CASHLESS

Cashless means all the transactions carried out between two or more individuals will occur by payment through payment gateways or through other than currency. It is done with the primary aim of uncovering the non-registered transactions. The Indian government has aim to promote the economy through non-cash transactions. Designating or of financial transactions handled as by means of debit/credit cards, USSD, AEPS, UPI, Mobile Wallets, W-Wallet, POS, Internet bank transfers, and cheques etc. With no paper money or coins handed from person to person: some say we are headed toward a cashless society. Reducing the economy's dependence on the cash and making it more deviated towards these mediums would result into betterment of the country and the economy.

METHODS OF CASHLESS TRANSACTION

Cheque: The cheque is one of the oldest methods of cashless payment. It is a popular method for everyone. In this method, a person issues a cheque for the specific amount to someone else. The cheque gets deposited in the respective bank. The bank processes a payment through holder of accounts or counter of the bank. The entire transaction done through cheque gets recorded and there is a proof of payment.

Demand Draft: Demand draft is another rudimentary way of cashless transaction. It is a safest option to receive payment from anyone. Demand draft never gets defaulted as it is signed by the banker. The clearance of demand draft takes additional time.

Debit Card/Credit Card: The usage of debit/credit card was limited in India. Nowadays its use is increasing vary rapidly. The limitation of this payment method is an availability of swipe card facility at merchant end or Internet connection. It is suitable for Online and Offline also for sale and purchase. Its transaction limit set up by card issuer. Cost of debit or credit card is fixed by issuing bank.

RTGS/NEFT: Abbreviation of RTGS is Real Time Gross Settlement System and for NEFT is National Electronic Fund Transfer. These types of Cashless application are suitable for high value online transaction. Minimum limit for cashless transaction in RTGS is Rs. 2 lakh and in NEFT Rs. 1 only. Transaction cost is fixed up by every bank self.

IMPS: Abbreviation of IMPS is Immediate Payment Service. It is suitable for instant transfer and its transaction limit is Rs. 2 lakh per day. Cost of IMPS is depending on transaction amount.

UPI: UPI means Unified Payment Interference and it is suitable for instant transfer. Its transaction limit is Rs. 1 lakh. VPA (Virtual Payment ID) of recipient and M Pin are requiring for handling this tool. Its cost is approximately less than 50 paisa per transaction. It is a mobile payment system which allows a person to do various financial transactions on their smartphone. UPI allows a person to send or receive money using virtual payment address without entering bank information. Merchant can enroll with banks to accept payments using UPI. The merchant would require a current account with a bank to accept its payments. Examples: SBI Pay, ICICI Pocket, AXIX Pay, Union Bank UPI APP, PNB UBI, Phonepe, Tranzapp etc.

USSD: USSD means Unstructured Supplementary Service Data. It is suitable for feature phone without internet connectivity and its transaction limit is Rs. Five thousand only. Aadhar number, IFSC or code allotted by banks on registration is requiring for using it.

E- WALLET: E Wallet can be used to purchase products starting from grocery to airline tickets. In order to use E Wallet customer and merchant, both require a smart phone with active internet connection. E –Wallet is suitable for small ticket transaction and its transaction limit is Rs. Twenty thousand per month. Examples of E Wallet are Paypal, Payoneer, Transferwise, Skrill and Payza. It is a simplest cashless method.

Mobile Wallet: The next cashless payment method is a mobile wallet. A person does not need a debit or credit card or internet banking password for making payment using a mobile wallet. Just load money in wallet via IMPS and use it on the move. Examples-Paytm, Payumoney, Oxigen, Lime, Mobikwik etc.

Gift Card: The next cashless payment method is a gift card. Gift card is a readymade card and can be purchased from a merchant or from the bank. The gift card is loaded with a fix cash amount a person can purchase any item from the specific vendor by using a gift card.

AEPS: Aadhaar Enabled Payment System is one of the best cashless payment methods. AEPS is like Micro ATM it uses smartphone and a finger-print scanner for the transaction. In order to use this facility, it is mandatory to link your Aadhaar card to bank account.

METHODOLOGY

The field survey on Cashless was conducted in August 2017 within Suriya region, Dist Giridih, Jharkhand. With help of Questionnaire and interview on topic of Cashless system in Suriya some 133 respondents have participated in it.

SURVEY DESIGN

A household survey was conducted across 14 various roads that had rural as well as urban households. In all interviewed 133 persons through a structured questionnaire. The persons were identified based on their socio economic classification (SEC). The SEC classified households according to occupation and education.

OBJECTIVES OF THE STUDY

1. To know the corruption which takes place mostly through the cash medium in Suriya.
2. To make awareness programme about cashless through panchayat level.
3. To reduce the burden of the cost of printing currency and also handling them.
4. To revive the banking sector which is high on NPA and bad loans.
5. To make loan cheaper and affordable for everyone.

REVIEW OF LITERATURE

Many empirical studies have been conducted on the subject of 'Cashless'. The major emphasis of field survey has been on various issues like frauds, security, usage pattern, new method of e-payment, etc. The previous work done on Cashless needs perusal. It has been reviewed to indicate in a general way the type of work done on this subject in India. It is expected that the critical examination of the studies would give focus to our problem and help to indicate the areas which have remained neglected at the hands of the researchers. From the review of literature, it was found that hardly there was a study which examined the perception of both users and traders on the usage of Cashless. Also, many studies concentrated on individual cards, for instance, credit or debit card and neglected the joint effect and new innovative cards like smart card, charge card and check card. In this study, an attempt is made to include all types of cashless system in the analysis. Because no any field survey was conducted in research region before this.

Prasad (2004), "Product innovation-A suggestion from a Reader: KCC vs. ATM" article examined the utility of Kisan credit card from the point of view of both the Kisan Credit Card (KCC) holders and commercial banks. It is an innovative product designed by the government of India (GOI) in consultation with RBI/NABARD. The facility of issuance of "cheque Books" to KCC borrowers is one of the important improvement. But this product needs further improvements by making it a technology driven to extension of Automated Teller Machine (AT M) to agriculturists in rural and semi-urban areas. "KCC ATM CARD" provides benefits to agriculturists as well as to commercial banks. An agriculturist gets instant cash for agriculture inputs such as fertilizers, seeds, pesticides and overdraft facility to current account holder holding "KCC ATM CARD" which involves no cost and boosting self–esteem among farmers. On the other hand, by providing the ATM facility, the commercial banks can reduce fixed cost per transaction. Author feels that by extending technology driven products will boost the image of commercial banks and helps to enlarge the base of his value agriculture advance which could attract the more farmers to commercial banks.

Goyal (2004) "Role of supplementary services in the purchase of credit card services in India" describes that service products being intangible and experiential in nature are different to evaluate prior to purchase and consumption. Consumers perceive risk while purchasing services and rely on various information sources to make a purchase decision. In services, personal sources of information and considered more than non personal sources of information. The present study focuses on understanding the significance of supplementary services as none personal source of information of consumers for pre-purchase evaluation of credit card services. In other words, whether information regarding supplementary services can help consumers make pre-purchase evaluation of credit cards. In addition to pre-purchase evaluation, the impact of supplementary services is studied towards post-purchase evaluation credit card services. Supplementary services being a part of full service product offer by marketers can be utilized as a beneficial tool to create interest and developing awareness among consumers.

Bhargava (2004) title "Debit cards: A new generation plastic money" analyses that debit cards are fast catching up with the customers. A combination of factors like ease of availability, debit-averse profile of customer and zero interest rates are propelling the usage of Debit Cards. The study emphasizes to increase the usage of these cards, bank will need to improve infrastructure and continues to focus an increasing installations of point of sale [POS] in smaller cities and on the locations which are frequently used by cardholders, and to develop new marketing programmers that educate customers on the benefits of replacing cash with plastic.

Sample of Questionnaire is as follows:

QUESTIONNAIRE

FIELD SURVEY ON CASH LESS SYSTEM IN SURIYA REGION

Name: ……..
Address:……
Mobile No: ……
Email I. d.:……..
Aadhar No. (Not Mandatory)

Q.1: What is the highest level of education you have completed?
Did not attend School Primary level Secondary level (High School) College Certificate Post Graduate

Q. 2: What is your gender?
Male Female Others

Q.3: What is your age?
Under 18 between 18 and 30 between 31 & 45 between 46 & 60 Over 60

Q.4: What is your current employment status?
Employed full time Employed part time Self employed Unemployed House wife Retired Student Vendor BusinessMan Farmer

Q.5: Do you own a Smart Phone?
Yes No

Q.6: Please rate your comfort level with new technology like Internet.
Very low Low Medium High Very High

Q.7: Do you have internet connection in your mobile?
Yes No

Q.8: Do you have any saving A/c in Bank?
Yes No

Q.9: Do you know about Cashless system in India?
Yes No

Q.10: If a Cashless system was introduced would you be more or less happy?
More Less

Q.11: Do you feel you have enough information regarding Cashless system?
Yes No

Q.12: What is your source of knowledge about Cashless?
Newspaper Internet Bank Magazine/Article Oral Programme through panchayat level

Q.13: Do you have uploaded in your mobile such as Paytm, Buddy, BHIM etc.?
Yes No

Q. 14: Are You Income Tax Payee?
Yes No

Q.15: Why do you need Cash?
Cash is widely accepted Cash offers greater privacy No knowledge about cashless Non Cash payments system not available everywhere Others

Q.16: Which of the following payment methods would you like mostly to use?
Cash Cheque Debit Card Credit Card SMS On-line (Net Banking) Cash Loader All the above
Q.17: Which of the given option you consider more reliable and secured?
Paper Money Plastic Money Both
Q.18: Which can be carried and kept easy and has more life?
Paper Money Plastic Money
Q.19: Due to Duplicity of paper money are you shifting to plastic money?
Yes No
Q.20: Do you believe that Bank should do more ready to set up a Cashless payment infrastructure?
Strongly agree Agree Disagree Strongly Disagree
Q.21: Do you believe minimizing the use of printed paper money will have a positive impact on the environment and help to reduce crime?
Yes No Positive impact on environment but will not affect crime Prefer not to answer
Q.22: Have you seen/hear any motivational program about Cashless at panchayat level?
Yes No
Q.23: Do you have any knowledge about cash or purchase transaction through thumb impression?
Yes No
Q.24: Would the benefits that Cashless systems bring be helpful to you?
Yes No
Q.25: Your Valuable Suggestion for **Cashless:**

THANK YOU VERY MUCH FOR YOUR VALUABLE TIME, CO-OPERATION, PATIENCE AND INFORMATION.

PLACE: ..... Signature of Respondent
DATE: .....

Promoting Cashless payment in Suriya region will be a challenge given lack of infrastructure, banking system and lack of knowledge on debit card and credit card. To successfully go Cashless, we will need to take a step by step approach and first address the issue that could cause hindrance.

CHALLENGES FOR CASHLESS

Why people failed to make Suriya Cashless:

- Cost related to payment of merchant fees,
- Non cash infrastructure are not available everywhere,
- Transparency and Taxation,
- KYC documentation, certification related to security of transaction,
- Time taken in processing card payments,
- Annual fees for card, levy of convenience charges/surcharge on use of cards,
- Safety and security concerns, fraud protection mechanism,
- Concerns regarding consumer grievance redress mechanism,
- Lack of availability of card payment option,
- Cost associated with card issuance, replacement maintains,
- System for addressing consumer complaints and grievances,
- Lack of awareness programme regarding Cashless,
- Short availability of connection and financial literacy,
- Some small retailers in Suriya have not enough resources to invest in electronic payment infrastructure,
- Lack of banking branches in Suriya (only two branches of national bank are available), etc.

MERITS OF CASHLESS ECONOMY

- Reduces instances of tax avoidance because it is a financial based economy where transaction traits are left,
- It will curb generation of black money,
- Will reduce real estate prices because of curbs on black money as most of black money is invested in real estate prices which inflates the prices of real estate markets,
- This could be avoided if we become cashless society,
- It will pave way for universal availability of banking services to all as no physical infrastructure is needed other than digital,
- Entire process becomes transparent. Payments can be easily traced and collected and corruption will automatically drop, so people will no longer have to pay to collect what is rightfully theirs,
- If bank note is fake, which has a huge negative impact on economy by going cashless that can be avoided,
- There are many such incidents in our life where we knowingly or unknowingly give and take germs in the form of bank note. This could be avoided,
- In cashless economy there will be no problem of soiled notes,
- Reduce cost of operating ATM for cash withdrawal only,
- Speed and satisfaction of operations for customers no delays and queues, no interaction with bank staff required,
- Cashless economy will ensure increase tax collection, both direct and indirect,
- Cash robbery will break,
- It saves the government substantial cost in printing of currency notes,
- It removes the funding sources of naxal which is great drawback of economy of Suriya,
- It will remove dowry system also, etc.

DEMERITS OF CASHLESS ECONOMY

- Hacking of the codes of banking is the main problem,
- The dispute mechanism can leave people in very confused,
- Cashless transaction is not free,
- No cash/currency in hand,
- If we lose debit or credit card it may be take a long while to procure another,
- Impractical if we move to another country,
- Cards get expired and then buy new one which takes long time,
- We may forget PIN,
- Bank will become very powerful, etc.

FINDINGS AND DISCUSSION

Findings through various questions in field survey are as follows:

Present Era is the education Era, in which a person can live without food for sometimes, but he cannot live without education. But discussion shows that only 10 persons are post graduate in questionnaire region. College going students are in 71 in numbers but they drop for acquiring education in post graduate level. 30% are such who are not well educated. This is a huge demerit in the way of cashless from cash mode "Motivation to Education will be an automatic motivation to cashless". Highest level of literacy can move to cashless system from cash system. Also there is shortage of higher educational institution in Suriya.

From the survey, this shows that only 28 are female out of 133 which may have two reasons; first one is that women are not taking proper interest in the way to cashless second one is that they are not getting priority to give advice related to cashless. So we should motivate them for cashless or give them equal opportunity for their opinion about cashless. The questions asked from male are more than females. Mostly female do not take interest in questionnaire or sharing their views with another male person. They are maximum house wife in number.

Questions were asked maximum from young age group like between 18 to 30 years. Means it will be easy for them to understand the benefits of cashless because a mature and sensible person always thinks before taking any action when they will know that cashless will be beneficial for everyone they will automatically switch to cashless. The young generation is those who can change old tradition cash system and they have powerful capacity of adopting new ideas of cashless system. If these generations will take interest in Cashless than chance of success is high.

Suriya basically knows for business in Jharkhand. Under survey I found that there is diversity in the employment of people, but the purpose is same to earn money. There is no any scope of full time employment in Suriya because lack of Government offices (Only 11 in numbers). There are so many business men in Suriya (27 in numbers). Students are mass targeted (46 in numbers). If any new challenge like cashless system will be accepted by almost all students' success is definite. About (1+15+46=62) 62 (approximately half of questionnaire persons) persons under survey report are in the unorganized sector. Unorganized persons are those who cannot produce anything for economy. At first people will come into organized sector then easily take advantage of cashless system.

There are 94 people out of 133 smart phone users in our survey area. But the number of users is not sufficient. Female lives in rural area do not know how to use smart phone. Less number users of smart phone is drawback for cashless economy. Availability and quality of telecom network will play an important role. Presently, people are facing difficulties in making electronic payments. One of the biggest beneficiaries of this transition, banks and related service providers will have to constantly invest in technology in order to improve security and ease of transaction. People will only shift when it's easier, certain and safe to make cashless transactions.

The opinion of comfort level with new technology is varying from people to people. Maximum software of Cashless runs through internet application. Knowledge of internet facility will become a successive path for Cashless economy. But medium knowledge of internet can't promote cashless rapidly.

There are so many (95) internet users found under survey. They are watching video, play games, using facebook, whatsapp, etc. in mobile through internet but maximum of them are not using mobile for Cashless. Things are also falling in place in terms of technology in Suriya. The recently launched Unified Payments Interface by National Payments Corporation of India makes digital transactions as simple as sending a text message. Some part of population under survey is still outside the internet and not in a position to reduce its dependence on cash. Under survey without internet user population were 38. It is just like a car without petrol.

Maximum persons are holding saving account in bank. This is good symbol for cashless. To be sure, the government on its part is working at various levels to reduce the dependence on cash. Opening bank accounts for the unbanked such as 10 persons under and adoption of direct benefit transfer is part of the overall idea to reduce usage of cash and increase transparency. RBI should also want to issue open new age small finance banks and payments banks which are expected to give a push to financial inclusion and bring innovative banking solutions.

Since the aware people's percentage is higher, the cashless economy can be brought here. Out of 133, only 99 persons know about Cashless system in India. To connect all the people with cashless firstly, we should try to provide detailed information about cashless system to people then it will result in favour of cashless system. Steps will have to be taken like advertisement, road shows etc for creating awareness among the unaware people.

Though not every person agrees to accept cashless system happily still the larger portion has great will that cashless economy takes place. Also if we light the others with the benefits of the cashless economy, sure they will co-operate too. Happiness relates with satisfaction in soul. 103 persons are happy with cashless announcement. That means they warm welcome to cashless system.

Only 68 persons have enough information about cashless. The Government will also need to play its part. Because 65 people out of 133 have not information regarding cashless system. It will have to find ways to incentivize cashless transaction and discourage cash payments. Implementation of the Goods and Service Tax (GST), should encourage businesses to go cashless. Government should also use this opportunity to revamp the tax administration, as more than taxes, small businesses fear tax inspectors.

Under survey I found that people are getting information from various sources about cashless system. It is a first step in the way of cashless newspaper, internets, Bank etc are good and enough sources for getting information. But information through panchayat level and through Magazine or Article is not successive in number.

Although cashless transaction have gone up in everywhere through use on Paytm, Buddy, BHIM etc. but mostly person (86 persons out of 133) under survey have not any such software in mobile. There mobile is only for talk, chat in internet, gossip with their friends and video calling with their relatives, friends etc. but no interest in such cashless system. Requirement is necessary for awareness, technological developments and government intervention. For instance, mobile wallets have been notable traction, and it is possible that a large number of people in Suriya will move straight from cash to mobile wallets.

There is general preference for cash transaction In Suriya. House wife, Unregistered Merchants, Self employed persons are not want to pay tax. If 109 persons out of 133 (Approx 82%) is not under income tax payee range how we can think about cashless economy? Merchants prefer not to keep records in order to avoid paying taxes and buyers find cash payment more convenient. Although cashless transactions have gone up in recent times, a meaningful transition will depend on a number of things such as awareness, technological developments and government intervention. More persons are not income tax payee, may be some of them are hiding their black money or may be some are normal businessman. Cashless will help to reduce black money. So, perhaps non income tax payees are in against of cashless.

59 persons need cash because cash is widely accepted, 6 persons need cash for greater privacy, 19 need cash in lack of knowledge about cashless, and mass level of person such as 49 need cash because non cash payment systems not available everywhere.

So, will the exercise to exchange currency notes and the ongoing currency crunch be a decisive factor in making Suriya a truly cashless economy? Shortage of cash has significantly increased the use of digital modes of payment, but the actual shift will only be visible after the cash crunch eases. It is possible that a section of people which has used electronic mode of payments for the first time due to the cash crunch will continue to transact through this medium, but there are still a number of hurdles in making Suriya a cashless economy.

66 persons are in support of cash payment system and 67 in support of non-cashless system. There is almost a tie between both. The reason for the persons supporting cash payment is lack of awareness about cashless system. If people aware with it, they definitely support cashless system.

Out of 133, 103 persons consider plastic money more reliable and secured because they know that it is safe and has a long life.

123 persons opinion is that plastic money is easy to keep and has more life so they are switching to cashless system and many of them advising others also to switch cashless.

Out of 133, 116 persons are shifting to plastic money due to duplicity because there are a lot of duplicate currency was available before November 2016 in market and it creates a lot of problem for people.

Many people strongly agree that bank must do more to set up cashless infrastructure. Bank can advertise this program through print media, electronic media and also through social media.

98 persons that believe in plastic money (part of cashless) and realize that minimum use of paper money will reduce the crime. 06 are against of it and 29 believe that it will have positive impact on environment but will not affect crime. People's points of views are different.

There is a lack of motivational program about cashless in Suriya. 104 persons argue in field survey that they have not seen or hear any program related Cashless. Panchyat and bank with joint collaboration must call general public meeting for this and try to understand the technique and knowledge about cashless.

When a person link up his or her saving A/C with Aadhar no., he or she is ready to transact or payment through thumb impression. Medium level of knowledge about this can't bring success to cashless system. Only 71 persons know about purchase transaction through thumb impression but 62 are unknown because thumb impression facility is available only in such apps.

Finally, 119 persons believe that cashless being helpful for us but another side 14 people argue that cashless in not helpful for us. But everything has both sides, here also there are some people denying the fact.

SUGGESTIONS

- It is a welcome start, need to lower the cost of electronic payment by minimizing cost,
- Promoting cashless payment in rural areas will be a challenge given lack of infrastructure. So infrastructure should be developed,
- Develop Internet connectivity in remote area of Suriya region,
- Bank Accounts for every individual and they being linked to Aadhar cards,
- Opening new branches of different banks,
- Govt. should remove transaction charges on purchase of petrol, gas and railway ticket,
- Promote literacy and purchase of smart phone including internet connectivity,
- Promoting useful tools of English language, internet or knowledge about cashless,
- Improve the speed on internet,
- Advancing markets and providing electronic swapping machine to shopkeepers along with training to operate it,
- Providing website in simple local language too,
- Some people says that cashless is just like to seat in exam hall without any preparation,
- Awareness program should develop in especially rural area through collaboration of Panchayt and Bank, etc.

Even as ordinary people of Suriya queue up for cash and our Indian economist are busy estimating the extent to which economic growth will be hit because of the ongoing drive to replace high-value bank notes, there has been a lot of discussion on whether the Government can use the current situation to push Suriya towards a cashless future.

Reducing Suriya's economy dependence on cash is desirable for a variety of reasons. India has one of the highest cash to gross domestic product ratios in the world, and lubricating economic activity with paper has costs. According to a 2014 study by Tufts University, the cost of cash in India, cash operations cost the Reserve Bank of India and Commercial banks about Rs. 21,000 crore annually. Also, a shift away from cash will make it more difficult for tax evaders to hide their income, a substantial benefit in a country that is fiscally constraint.

CONCLUSION

Technology specially the mobile technology has changed and modulated human behavior. But post digitalization and with rigid cashless economy, every human being will be almost exactly the same in their behavior and attitude. There will be no man dying from lack of food. Even beggars and vagabonds will have digital cards and rich without having liquid cash will give them digital cash into their cards. The government will monitor their cards and watch how poor they are all, in fact.

Some qualitative conclusion of this survey can be say in following words:

1. People of Suriya know how to live with least amount of money,
2. People of Suriya are now well prepared to face more Surgical Strikes in future-all good for health,
3. People of Suriya now know to go digital, especially in many matters for cashless transaction,
4. Very strong message has gone to naxals,
5. All the Govt. agencies who worked 24 x 7 to catch the culprits has shown how get works and that its arms are too long.

So far as literacy level up the sample is concern, it is only 50%. It needs improvement as without literacy, computer literacy and cashless system is almost impossible. Female cases are not interested but they constitute half of the society. Without their awareness, cashless system cannot be successful. The sample proves that the age group 18 to 30 is well acquainting up cashless. Employment status reveals that more participants are from unorganized sectors. The number of user smart phone is increasing very rapidly still the number of non users is a matter of concern. Knowledge and understanding of internet is a basis of cashless system but the data shows that a large number of people are still unknown of internet. So far as internet connection in mobile deals with 95 participants but 38 participants have no internet connection. Instead of Jandhan Yojna, ten cases have no saving accounts. It shows the lacunae in the implementation of the program. Almost all persons under the sample know about cashless system still some cases are unknown about cashless hence more publicity and awareness should be spread. Maximum participants are happy with the introduction of cashless system they believe that it will bring a revolution in Indian economy as well as Suriya economy still some participants are not so happy they are pessimistic of the new system. Maximum people get information of cashless through newspaper but Bank, Panchayat institution are not so effective to spread awareness of cashless. Maximum participants have not installed Paytm in their smart phone. They use their smart phone for other purposes. The sample reviles that small number of participants are tax payee. Majority of them are non tax payee. As non cash payment system is not available everywhere, cash transaction is as usual. The number of users in cashless system is encouraging as they are 67 in comparison to 66 who are using cash transaction. Maximum participants feel that plastic money is more secured long lasting than paper money. Maximum of them shifted their transaction from paper money to plastic money. More bank branches should be established and expanded they should be ready to make available the advance infrastructure. Printed paper money is now minimizing in the use. Panchayat level motivational program is discouraging. Participants do not get effective knowledge from it. BHIM application deals with using thumb impression in monetary transaction. Aadhar number is the base of this application. The knowledge about this is spreading.

True, there are difficulties in implementing the idea of cashless economy in Suriya where a large number of people are living under misery and poverty, yet a beginning had to be made someday. Today, there is a sea change in the mindset of people with regard to digital means of monetary dealings which are safe, easy, convenient and transparent. There is no place for black money. All these indicate that Suriya is moving towards the RBI's and government of India's goal of Cashless economy but very slowly. The last but not least is that maximum participants who have contributed in the questionnaire believe that cashless is helpful as well as useful. This data is remarkable for the success of the cashless system in Suriya.

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ROLE OF SEBI IN INVESTORS' PROTECTION IN INDIA - CURRENT SCENARIO

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ABSTRACT

Investor protection is one of the most important elements of a thriving securities market or other financial investment institution. The study mainly focuses, Investor protection focuses on making sure that investors are fully informed about their purchases, transactions, affairs of the company that they have invested in and the like. SEBI had issued guidelines for the protection of the investors through the securities and exchange board of India (Disclosure and Investor protection) Guidelines, 2000. The SEBI is the regulator for the security market in India. In 1988 the Securities and Exchange Board of India (SEBI) was established by the Government of India through an executive resolution, and was subsequently upgraded as a fully autonomous body on April 12, 1992 the Securities and Exchange Board of India was constituted. It was constituted in accordance with the provisions of the Securities and Exchange Board of India. The basic functions of the Securities and Exchange Board of India is to Protect the Interests of Investors in securities and to promote the development of and to regulate the securities market and for matters connected therewith or incidental thereto.

KEYWORDS

role of SEBI, protection of investors.

INTRODUCTION

The Securities and Exchange Board of India Act, 1992 (the SEBI Act) was amended in the years 1995, 1999 and 2002 to meet the requirements of changing needs of the securities market and responding to the development in the securities market. The primary function of Securities and Exchange Board of India under the SEBI Act, 1992 is the protection of the investors' interest and the healthy development of Indian financial markets. No doubt, it is very difficult and herculean task for the regulators to prevent the scams in the markets considering the great difficulty in regulating and monitoring each and every segment of the financial markets and the same is true for the Indian regulator also. SEBI had issued guidelines for the protection of the investors the Securities and Exchange Board of India (Disclosure and Investor Protection Guidelines, 2000).

SCOPE OF THE STUDY

The present study is mainly scope for Investor Protection of SEBI under the Guidelines 2000.

- ✓ SEBI has been encouraging investor-education. For this purpose, certain investors' associations have been registered.
- ✓ Companies raising public deposits as well as huge capital must undergo credit rating. Credit rising by an authorized authority gives a fair view about the financial strength of the organization.
- ✓ SEBI has taken the responsibility of disclosing fair and adequate information for investors for the purpose of investment decisions.
- ✓ For the benefit of the investors, company has to disclose its capacity utilization, adverse events and material changes of key personnel.
- ✓ Disclosure on market prices for listed company.

OBJECTIVES OF THE STUDY

The basic objectives of the SEBI Board are identified as the primary objective of SEBI is to promote healthy and orderly growth of the securities market and secure investor protection. The objectives of SEBI are as:

1. To study protect the interest of investors, so that, there is a steady flow of savings into the capital market.
2. To study regulate the securities market and ensure fair practices.
3. To promote efficient services by brokers, merchant bankers, and other intermediaries, so that, they become competitive and professional.

RESEARCH METHODOLOGY

The paper is conceptual in nature primarily, largely based on secondary source of information, and focuses on investor protection measures taken by SEBI from time to time.

FUNCTIONS OF SECURITIES EXCHANGE BOARD OF INDIA (SEBI)

The SEBI Act, 1992 has entrusted with two functions they are:

- Regulatory functions and
- Developmental functions

(i) Regulatory functions: These include Regulation of Stock Exchange and self-regulatory organizations:

- ✓ Registration and regulation of Stock brokers, sub-brokers, Registrars to all issues, merchant bankers, underwriters, portfolio managers etc.,
- ✓ Registration and regulation of the working of collective investment schemes including mutual funds.
- ✓ Prohibition of fraudulent and unfair trade practices relating to securities market.
- ✓ Prohibition of insider trading.
- ✓ Regulating substantial acquisition of shares and takeover of companies.

(ii) Developmental Functions: These include

- ❖ Promoting investors' education.
- ❖ Training of Intermediaries.
- ❖ Conducting research and publishing information useful to all market participants.
- ❖ Promotion of fair practices.
- ❖ Promotion of self-regulatory organizations.

ORGANIZATION OF SECURITIES EXCHANGE BOARD OF INDIA (SEBI)

The SEBI Act provides for the establishment of a statutory board consisting of six members. The chairmen and two members are to be appointed by the Central Government, one member to be appointed by Reserve Bank and two members having experience of securities market to be appointed by the Central Government. SEBI has divided the activities into four operational departments. They are primary market department, issue management and intermediary's department, Secondary market department and institutional department. Each department is headed by an Executive Director.

WHY INVESTOR'S PROTECTION IS IMPORTANT?

- Investors are the backbone of the securities market.
- They determine the level of activity in the Securities market and the level of activity in the economy.
- Many investors may not possess adequate expertise/knowledge to take informed investment decisions.
- May not be aware of the complete risk-return profile of the different investment options. May not be fully aware of the precautions they should take while dealing with market intermediaries and dealing in different securities.
- They may not be familiar with the market mechanism and the practices as well as their rights and obligations.

SEBI GUIDELINES FOR ISSUE OF FRESH SHARE CAPITAL

- All applications should be submitted to SEBI in the prescribed form.
- Applications should be accompanied by true copies of Industrial license.
- Cost of the project should be furnished with scheme of finance.
- Company should have the shares issued to the public and listed in one or more recognized stock exchanges.
- Where the issue of equity share capital involves offer for subscription by the public for the first time, the value of equity capital, subscribed capital privately held by promoters, and their friends shall be not less than 15% of the total issued equity capital.
- An equity-preference ratio of 3:1 is allowed.
- Capital cost of the projects should be as per the standard set with a reasonable debt-equity ratio.
- New company cannot issue shares at a premium. The dividend on preference shares should be within the prescribed list.
- All the details of the underwriting agreement.
- Allotment of shares to NRIs is not allowed without the approval of RBI.
- Details of any firm allotment in favor of any financial institutions.
- Declaration by secretary or director of the company.

SEBI GUIDELINES FOR FIRST ISSUE BY NEW COMPANIES IN PRIMARY MARKET

- ✓ A new company which has not completed twelve months of commercial operations will not be allowed to issue shares at a premium.
- ✓ If an existing company with a five-year track record of consistent profitability is promoting a new company, then it is allowed to price its issue.
- ✓ A draft of the prospectus has to be given to the SEBI before public issue.
- ✓ The shares of the new companies have to be listed either with OTCEI or any stock exchange.

SEBI GUIDELINES FOR SECONDARY MARKET

- All the companies entering the capital market should give a statement regarding fund utilization of previous issue.
- Brokers are to satisfy capital adequacy norms so that the member firms maintain adequate capital in relation to outstanding positions.
- The stock of exchange authorities has to alter their bye-laws with regard to capital adequacy norms.
- All the brokers should submit with SEBI their audited accounts.
- The brokers must also disclose clearly the transactions price of securities and the commission earned by them. This will bring transparency and accountability for the brokers.
- The brokers should issue within twenty-four hours of the transaction contract notes to the clients.
- The brokers must clearly mention their accounts details of funds belonging to clients and that of their own.
- Margin money on certain securities has to be paid by claims so that speculative investments are prevented.
- Market makers are introduced for certain scripts by which brokers become responsible for the supply and demand of the securities and the price of the securities is maintained.
- A broker cannot underwrite more than 5% of the public issue.
- All transactions in the market must be reported within twenty-four hours to SEBI.
- The brokers of Bombay and Calcutta must have a capital adequacy of Rs. 5 lakhs and Delhi and Ahmadabad it is Rs. 2 lakhs.
- Members who are brokers have to pay security deposit and this is fixed by SEBI.

INVESTOR PROTECTION MEASURES BY SEBI

Investor protection legislation is implemented under the section 11 (2) of the SEBI Act. The measures are as follows:

- Stock Exchange and other securities market business regulation.
- Registering and regulating the intermediaries of the business like brokers, transfer agents, bankers, trustees, registrars, portfolio managers, investment consultants, merchant bankers etc,
- Recording and monitoring the work of custodians, depositors, participants, foreign investors, credit rating agencies, etc.,
- Registering investment schemes like Mutual fund and capital fund ventures and regulating their functioning.
- Promotion and controlling of self-regulatory companies.
- Keeping a check on frauds and unfair trading methods related to the securities market.
- Observing and regulating major transactions and take-over of the companies.
- Carry out investor awareness and education programme.
- Train the intermediaries of the business.
- Inspecting and auditing the security exchanges (SEs) and Intermediaries.
- Assessment of fees and other charges.

CONCLUSION

Investor protection is among the most talked topics in the securities market. Safeguarding investor interests is one of the top priorities of the regulatory bodies. It is evident that SEBI has put out some hard measures to ensure investor protection. The guidelines and measures are formed to make sure that every of the investor interest in secured. But there is a lot of work to be done yet. The investor awareness programme has certainly helped and will continue to do so. These measures are just the direction for a clean and transport transactions. It is for issuers and investors to follow the guidelines to really secure the securities market.

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IMPACT OF DIVIDEND POLICY ON THE MARKET PRICE OF SHARE-A CASE STUDY OF ASIAN PAINTS FROM FMCG SECTOR IN INDIA

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ABSTRACT

Dividend payment is a major component of stock return to shareholders. Dividend payment could provide a signal to the investors that the company is complying with good corporate governance practices (Jo and Pan, 2009). Good corporate governance practices are valuable for a company as it implying that the company is able to raise funds from capital market with attractive terms. By distributing dividend, it able to attract investors and indirectly increase the company market price of shares. This sort of company could easily raise funds through new share issuance for expansion which then would increase profits and increase market price of share. MM documented that firm value is independent on dividend policy. He argued that value is driven only by future earnings and risk of its investments. In reality investors will be paying high taxes on dividend instead of capital gains. The investors will be taxable once their shares are sold. A company that pays no dividends will be more attractive to investors than a company that gives dividends payment (Black, 1976). Thus, stock price for non-dividend paying company tend to increase. For this reason, most of companies will be tempted to eliminate dividend payments. My paper is searching "does dividend policy have any impact on the Market price of the share of Asian Paints?" To search the impact of dividend policy on market price of the share of Asian paints, Multiple Regression analysis is used as tools through SPSS-20

KEYWORDS

dividend policy, market price, impact, investors, capital gain, eliminate.

1. INTRODUCTION

Dividends act as gauging tool of financial soundness, solvency, management efficiency and overall growth of an organization. The common investor focuses on the firm's dividend policy to expect higher proceeds. The dividend payout ratio of firm determines proportion of earnings paid to shareholders and ploughed back in the firm for reinvestment. Both are desirable, but they are in conflict; a higher dividend means less provision of funds for growth and higher retained earnings means low dividends. Dividend payout (investors‟ expectations) and value of firm should be considered for the overall contemplation for optimal dividend policy. However, there are certain schools of thought who give conflicting opinions to this effect. Miller and Modigliani (1961) argue that, in a perfect world, the value of the firm is unaffected by its dividend decision, so there should not be any wealth effect upon the announcement of a change in dividend payout policy. However, the studies by Walter (1963) and Gordon (1963) contradict this proposition. The investors‟ expectation relies on the share price of the given firm which tends to change by the declaration of dividends. Dividend payment must increase shareholder's wealth. The relevance and irrelevance of dividend announcement and shareholder reaction has been a debate over long time which conversed in many empirical studies.

2. OBJECTIVES OF THE STUDY

1. To analyze how dividend policy impact on the market price of the share of Asian Paints.
2. To analyze the Impact of growth factor on the market price of the share of Asian Paints.

3. REVIEW OF THE LITERATURE

Allen and Rachim (1996) suggest that the relationship between dividend policy and share price volatility after the inclusion of growth as a control variable would be suggestive of either the arbitrage or information effect. Debt, dividend and ownership structure significantly affects firm value.

Alonso, et al., (2005) finding documented based on 101 non-financial Spanish companies publicly traded during 1991-1995. Firms with positive growth opportunities indicated that debt has negative influence on firm value. Debt plays active role to discipline managers in firms that do not have growth opportunities. In the absence of growth opportunities, dividend is significantly and positively related to firm's value. High retained earnings during period of no growth opportunities may result in an inefficient investment. Based on 361 non-financial Malaysian listed firms from 2002 to 2007**.**

Baskin (1989) used operating incomes, the magnitude of the business, debt to equity ratio, payout ratio and the respective firm's growth as control variables in checking the impact of association between dividend yield and price explosive nature. These variables affect stock returns and also dividend yield.

Brigham and Gapenski (2004). The payment of dividends conveys to shareholders that the company is profitable and financially strong. 2 This in turn causes an upsurge in demand for the firm's shares causing a rise in their market prices.

Kaen (2003) says that the management purpose of maximization of shareholders' wealth is itself an end– it is the ways to the single-mindedness of well-organized allocation of resources and economic growth.

Khan (2011) studied 202 Pakistani enterprises listed on KSE for a period of five years starting from 2005. In his research study, he used event study for computing share returns around dividend announcements. He interviewed 23 companies' executives and 16 financial analysts to find out the determinants of dividend policy and the role of dividends as a market signal.

Miller and Rock (1985) recommended that dividend declaration give the omitted facts about the business and as a result market may guesstimate the corporation's existing earnings. Shareholders have better assurance that economic profits are reported when announcements are followed by sufficient dividends. If investors have confident opinions, they may respond less to less authentic information.

Modigiliani (1958) findings that under certain simplifying suppositions, a firms' dividend policy does not influence its worth. The essential principle of their argument is that firm value is sturdily inclined to choosing most favorable investments. The net payout is the disparity flanked by earnings and investments, and a residual dividend policy dividend payout ratio. Since the net payout encompass dividends and share repurchases, a firm can regulate its dividends to any height with a counter-balance change in share exceptional of profit realized.

4. RELEVANCE OF THE STUDY

In the present business environment, the dividend policy is very much relevance because the common investor focuses on the firm's dividend policy to expect higher proceeds. The dividend payout ratio of firm determines proportion of earnings paid to shareholders and ploughed back in the firm for reinvestment. Both are desirable, but they are in conflict; a higher dividend means less provision of funds for growth and higher retained earnings means low dividends.

5. WHY SELECT ASIAN PAINTS FROM FMCG SECTOR

Currently, FMCG is the fourth largest sector in the Indian economy and provides employment to around three million people accounting for approximately five per cent of the total factory employment in the country. According to the Assocham-TechSci Research report, steady economic growth, rising share of organized retail, improving awareness, and a favorable demographic dividend will give a boost to the industry's growth. The sector is expected to grow at a compounded annual growth rate (CAGR) of 20.6 percent, the report said.

6. COMPANY PROFILE

The company has come a long way since its small beginning in 1942. Four friends who were willing to take on the world's biggest, most famous paint companies operating in India at that time set it up as a partnership firm. Over the course of 25 years, Asian Paints became a corporate force and India's leading paints company. Driven by its strong consumer-focus and innovative spirit, the company has been the market leader in paints since 1967.

Asian Paints is India's leading paint company with a group turnover of Rs 170.85 billion. The group has an enviable reputation in the corporate world for professionalism, fast track growth, and building shareholder equity. Asian Paints operates in 19 countries and has 26 paint manufacturing facilities in the world servicing consumers in over 65 countries. Besides Asian Paints, the group operates around the world through its subsidiaries Berger International Limited, Apco Coatings, SCIB Paints, Taubmans and Kadisco. Asian Paints manufactures wide range of paints for Decorative and Industrial use. In Decorative paints, Asian Paints is present in all the four segments v.i.z Interior Wall Finishes, Exterior Wall Finishes, Enamels and Wood Finishes. It also offers Water proofing, wall coverings and adhesives in its product portfolio. Asian Paints also operates through 'PPG Asian Paints Pvt Ltd' (50:50 JV between Asian Paints and PPG Inc, USA, one of the largest automotive coatings manufacturer in the world) to service the increasing requirements of the Indian automotive coatings market. The second 50:50 JV with PPG named 'Asian Paints PPG Pvt Ltd' services the protective, industrial powder, industrial containers and light industrial coatings markets in India.

7. METHODOLOGY

The information and data for the research is collected from secondary sources i.e. published articles, journals, newspapers, reports, books and websites. The profit & loss account and balance sheet for the last 10 years i.e. from 31st March 2008 to 31st March 2017 of Asian Paints listen in National stock Exchange (NSE) and Bombay Stock Exchange (BSE) in India were studied to get the **impact of dividend policy on the market price of share of Asian Paints of Asian paints from FMCG sector in India.** The available data between these periods has been carefully analyzed, interpreted and presented with the help of **Multiple Regression Analysis through SPSS-20.**

8. DATA ANALYSIS AND FINDING

The data is collected from the profit & loss account and balance sheet for the last 10 years i.e. from 31st March 2008 to 31st March 2017 of Asian Paints from Service sector in India and personally compile it. To get the Market price per share I took different prices from four quarter of each financial year and make it **Average market price per share** with the help of Excel.

TABLE 1: AVERAGE MARKET PRICE OF SHARE

	June	Sept	Dec	March	Average (MPS)
2008	81.02	98.84	109.96	119.99	102.4525
2009	114.93	118.72	89.5	78.64	100.4475
2010	118.78	140.58	179.72	203.89	160.7425
2011	230.18	266.32	287.87	252.58	259.2375
2012	318.51	315.76	259.24	324.2	304.4275
2013	388.86	393.48	443.26	491.73	429.3325
2014	463.65	459.25	490	547.95	490.2125
2015	594	629.55	752.3	811.3	696.7875
2016	755.35	841.6	883.55	868.4	837.225
2017	1003.3	1160.7	891.05	1075.5	1032.638

Sources:-www.moneyconrol.com (personally compiled)

TABLE 2: LIST OF DEPENDENT AND INDEPENDENT VARIABLES

	MPS	DPR	NPR	EPS	ROCE
2008	102.4525	38.91	39.12	39.12	36.05
2009	100.4475	40.01	37.78	37.78	29.51
2010	160.7425	31	80.74	80.74	45.72
2011	259.2375	35.29	80.81	80.81	35.55
2012	304.4275	36.26	99.92	99.92	35.62
2013	429.3325	37.48	11.7	109.47	31.91
2014	490.2125	36.86	11.22	12.19	29.99
2015	696.7875	37.73	11.39	13.84	29.39
2016	837.225	39.18	12.63	16.65	30.14
2017	1032.638	36.3	14.25	18.8	24.57

Sources:-www.moneyconrol.com

The dependent variable here is market Price per Share of the selected company (MPS), and the independent variables for indicating the Dividend Policy of the Company I consider Net Profit Ratio (NPR), Earning Per Share (EPS), and Dividend Payout Ratio (DPR) and to measure the growth of the company, Return on Capital Employed (ROCE) is considered. I want to find out the **Impact of dividend policy on market price of Share of Asian Paints from FMCG Sector in India.**

TABLE 3: VARIABLES ENTERED/REMOVED[a]

Model	Variables Entered	Variables Removed	Method
1	Return on Capital Employed, Earning Per Share, Dividend Payout Ratio, Net Profit Ratio[b]	.	Enter

a. Dependent Variable: Market Price Per Share

b. All requested variables entered.

TABLE 4: MODEL SUMMARY[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.848[a]	.719	.494	115.710335	.719	3.198	4	5	.117	1.788

a. Predictors: (Constant), Return on Capital Employed, Earning Per Share, Dividend Payout Ratio, Net Profit Ratio

b. Dependent Variable: Market Price Per Share

Findings

In Model Summery

1. We will focus only on the R square value. For an **R** square of 0.719, we can say that the model explains 71.9% of the variations in real life and so the model is a good model.
2. Since **Durbin-Watson** statistics is below 4(i.e.1.788). It indicates that there is no auto-correlation among the independent variables.

TABLE 5: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	171292.392	4	42823.098	3.198	.117[b]
	Residual	66944.408	5	13388.882		
	Total	238236.800	9			

a. Dependent Variable: Market Price Per Share

b. Predictors: (Constant), Return on Capital Employed, Earning Per Share, Dividend Payout Ratio, Net Profit Ratio

Findings

Here F = 3.198, the value is very low and the Significant Level (Sig.) P > 0.05 (11.7) which means the null hypothesis (H0) is accepted and the alternate hypothesis is rejected.

The dividend Policy has no impact on Market price of share of the company.

Table 5: The ANOVA results of the independent variables –

Initially null hypothesis of ANOVA tells us that:

(H0) = The dividend Policy has no impact on Market price of share (MPS).

And the alternate hypothesis tells us that -

(H1)= The dividend Policy has an impact on Market price of share (MPS).

TABLE 6: COEFFICIENTS[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3659.209	1005.238		3.640	.015	1075.162	6243.256		
	Dividend Payout Ratio	-41.801	21.022	-.653	-1.988	.103	-95.840	12.238	.521	1.918
	Net Profit Ratio	-1.165	1.778	-.248	-.655	.541	-5.736	3.406	.393	2.546
	Earning Per Share	-.510	1.367	-.119	-.373	.724	-4.023	3.003	.551	1.814
	Return on Capital Employed	-24.881	11.381	-.881	-2.186	.080	-54.137	4.374	.346	2.892
a. Dependent Variable: Market Price Per Share										

Findings

The important things to note in the **Coefficients** table are highlighted in yellow color. These tell us the structure of the model. The constant is the C, Net Profit ratio (NPR), Dividend Payout Ratio (DPR), Earning Per share (EPS) are considered as dividend policy, Return on Capital Employed (ROCE) is considered as the growth of the company has an impact on Market price of Shares (MPS) of the selected company.

Each of these beta value has an associated standard error indicating to what extend these values would vary across different samples, and these standard errors are used to determine whether or not the b value differs significantly from zero. Therefore, if the t-test associated with b value is significant (if the value in the column labeled Sig. is less than 0.05) then that predictor is making a significant contribution to the model. The smaller the value of Sig. (and the larger the value of t) the grater the contribution of the predictor.

Variance Inflation Factor (VIF) of all the independent variables are below 4(which are plotted yellow color in the table), It indicates that multicollinearity does not exist among the variables.

To find out the impact of dividend policy on Market price per share of Asian Paints from FMCG sectors in India.

Initially null hypothesis tells us:

H01: There is no significant impact of Dividend payout ratio of the firm on Market price of share.

H02: There is no significant impact of Net Profit Ratio of the firm on Market price of share.

H03: There is no significant impact of Earning per Share on Market price of share.

H04: There is no significant impact of Return on Capital Employed of the firm on Market price of share.

And the alternate hypothesis tells us that the dividend Policy has an impact on Market Price per Share.

DETAIL ANALYSIS OF THE IMPACT OF DIVIDEND POLICY ON MARKET PRICE OF SHARE

The dividend impact on market price of shares is analyzed using Multiple Regression having MPS as dependent variable, and DPR, PAT, EPS and ROCE as independent variables.

H01: There is no significant impact of Dividend Payout ratio of the firm on Market price per Share. Since the p (10.3%) value is greater than 5%, null hypothesis is accepted and alternative hypothesis is rejected. It means the DPR has no impact on Market Price per Share (MPS) of the company.

H02: There is no significant impact of Net Profit ratio of the firm on Market price per Share.

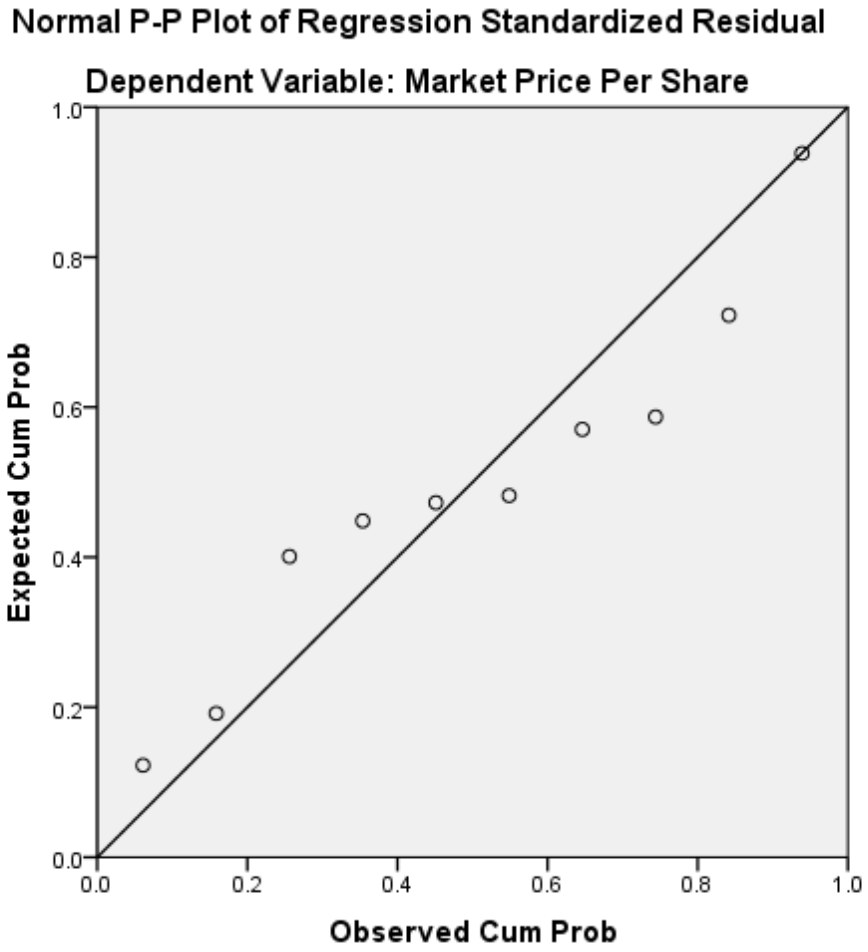
Since the p (54.1%) value is greater than 5%, null hypothesis is accepted and alternative hypothesis is rejected. It means the NPR has no impact on Market price per share (MPS) of the company.

H03: There is no significant impact of Earnings Per Share of the firm on Market price per share.

Since the p (72.4%) value is greater than 5%, null hypothesis is accepted and alternative hypothesis is rejected. It means the EPS has no impact on Market price per share (MPS) of the company.

H04: There is no significant impact of Return on Capital Employed (ROCE) of the firm on Market price per share. Since the p (8%) value is greater than 5%, null hypothesis is accepted and alternative hypothesis is rejected. It means the ROCE has no impact on Market price per share (MPS) of the company.

PLOT 1: NORMAL P-P PLOT REGRESSION STANDARDIZED RESIDUAL



From the above (Figure 1) plot it is clear that the relationship between the theoretical percentiles and the sample percentiles is approximately linear. Therefore, the normal probability plot of the residuals suggests that the error terms are indeed normally distributed.

9. CONCLUSION

The research hypotheses tested include that there is no significant impact of Dividend policy i.e Dividend pay Pay-out ratio, Net profit Ratio and Earning per Share on Market price per share of the Asian Paints. The analysis also shows that the growth factor of the firm does not have significant impact on Market price of the company.

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A STUDY ON UNEMPLOYMENT AND TRAINING PROGRAMME OFFERED FOR EMPLOYMENT IN INDIA

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ABSTRACT

Unemployment casts some short term ripples throughout the economy by reducing an individual's contribution in terms of services and taxes. The unemployed also does not possess the power of purchase, thus in effect contributing to bringing down demand of goods in the market and creating more unemployment. This vicious cycle creates a cascading effect throughout the economy and trickles down to different social strata. India currently (2016) has a population of about 1.3 billion. Indian economy has experienced maximum growth and yet less than half number of Indians seeking jobs has managed to land one during this period. State wise figures reveal that Tripura has the highest unemployment rate in the country at 19.7% while Gujarat has the lowest at 0.9% in 2015-2016. On the other hand, unemployment rate is higher among women at 8.7 percent versus 4.3% among men. Women unemployment rate is higher in the rural areas than in urban sectors of the country. Experts fear that at present, India is experiencing a jobless growth with not enough jobs being created for its working age population (15-64 years). There is ample skepticism afloat about the country not being able to cash in on its demographic bonus, predicted to be 869 million by year 2020 – world's largest.

KEYWORDS

unemployment, employment, schemes and training programme.

I. INTRODUCTION

If the word demands a definition, "unemployment", may be elaborated as a state of not finding work by an individual who is fit and willing to work. It is usually measured in percentage; the number of individuals without work out of the total "labour force" of the country or specific social groups. Labour force is the term collectively applied to the total number of individuals within the population who are willing and capable of doing work. Unemployment rate of a country is indicative of its socio-economic health.

II. OBJECTIVES OF THE STUDY

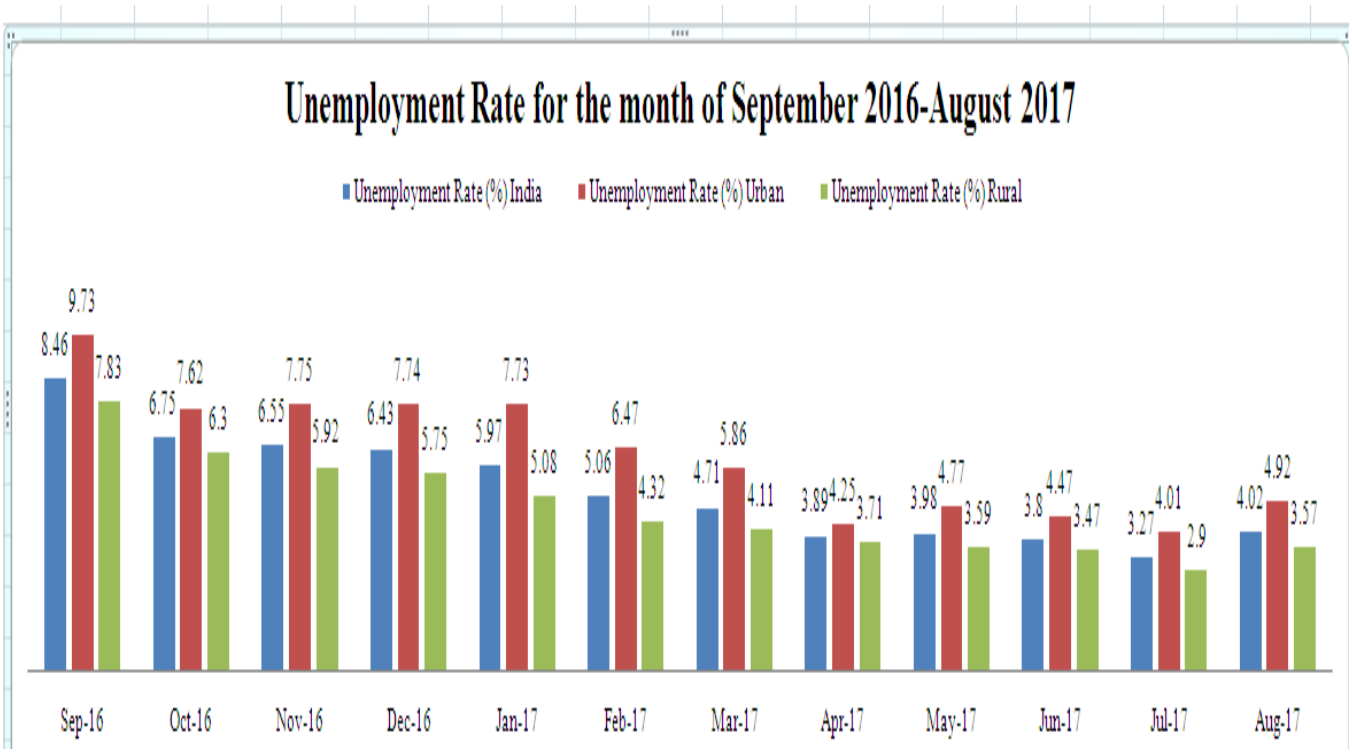
1. To examine the current status of the unemployment in India
2. To analyze the government taken initiated steps to increase the employment
3. To suggest reduce the unemployment.

III. CURRENT STATUS OF UNEMPLOYMENT IN INDIA

TABLE 1

Month	Unemployment Rate (%)		
	India	Urban	Rural
Aug-17	4.02	4.92	3.57
Jul-17	3.27	4.01	2.9
Jun-17	3.8	4.47	3.47
May-17	3.98	4.77	3.59
Apr-17	3.89	4.25	3.71
Mar-17	4.71	5.86	4.11
Feb-17	5.06	6.47	4.32
Jan-17	5.97	7.73	5.08
Dec-16	6.43	7.74	5.75
Nov-16	6.55	7.75	5.92
Oct-16	6.75	7.62	6.3
Sep-16	8.46	9.73	7.83

FIG. 1



UNEMPLOYMENT FALLS

On 14 September 2017, the 30-day moving average of the all India unemployment rate decreased by 11 basis points to 4.45 per cent, as compared to the previous day. This was due to a decline in both rural and urban unemployment.

The 30-day moving average of rural unemployment rate fell by 11 basis points to stand at 4.16 per cent. Similarly, the 30-day moving average of urban unemployment rate fell by 11 basis points to 5.01 per cent for the same period. As a result of this similar downward trend, the urban-rural differential remained unchanged at 85 basis points.

IV. THE CENTRAL GOVERNMENT TAKEN INITIATED STEPS TO INCREASE THE EMPLOYMENT IN INDIA

MAKE IN INDIA

The main aim of the Make in India programme was to generate employment in the manufacturing sector. The target was to increase the share of manufacturing to 25% of GDP by 2020 from 15% under the UPA-led government. However, the parliamentary standing committee of commerce (2017) indicated that "the manufacturing sector has grown only by an average of 1.6% in the last 5 years till 2015-16."

Some economists believe stringent land acquisition laws and inflexible labour regulations make it difficult for India to attract investors in the manufacturing sector. Others believe the lack of support to local manufacturers has led to the failure of the project. Local apparel, footwear, textiles and leather industries did not receive any support from the government in the form of funding. This suggests that although the government aimed to ease the process of business and create more jobs, it could not achieve either.

DIGITAL INDIA

The government aimed to stress on automation through the introduction of Digital India. As a result, major IT companies such as WIPRO, Tech Mahindra and HCL Technologies hardly hired any new employees from 2015-16. Additionally, demonetisation and the switch to online transactions resulted in the closing down of many local kirana stores that accepted only cash payments.

In many ways, India is not yet equipped to transition to Digital India. At present, there isn't enough spectrum or wired connectivity to support the initiative. Through the project, the government had aimed to create home based jobs and encourage more entrepreneurs to start online businesses. However, due to poor digital infrastructure, it has failed to achieve its goals.

STARTUP INDIA

Under this programme, the Central government encouraged banks to provide finance to young entrepreneurs to start their own business ventures. However, lack of innovation and lack of skilled labour resulted in the shutdown of many new startups. In the last two years, a total of 25 startups have shut down. Startups such as TinyOwl, Dazo and Peppertap had to close down due to lack of funds and appropriate skill set. In particular, due to Startup India, many existing employees left their present jobs and turned entrepreneurs. However, since many of the startups failed, they are now unemployed. It could be suggested that not only did Startup India fail to create more jobs, it may have actually resulted in a lot of individuals losing their jobs.

SMART CITIES

The Central government had announced that 100 smart cities would be created and townships revamped by developing infrastructure and transportation facilities. Additionally, in each of these townships, new job opportunities would be created to accelerate overall development. In particular, the main aim of smart cities was to invest in technology and train the youth to create more jobs. But post the identification of the smart cities, no further steps have been taken by the government. Though there have been multiple conferences on the subject, no proper policy regarding investment in technology and how to provide training has been designed.

It is also important to highlight that labour force participation among women has declined significantly. In the three-year action agenda draft (2017-2020), released on April 23 by Niti Aayog, the emphasis was on promoting gender equality in workplaces. Government data from 2004-2012 showed that 1.96 crore women dropped out of the workforce in India. One major reason women join the workforce is to add to household income. However, it has also been observed that once household incomes become stable, they leave their jobs. Also, post marriage, women have to divide their time between public and private responsibilities, according to the International Labour Organisation. Women are willing to accept work if it is near their homes and they do not have to travel too much. Hence, in order to encourage more women in the labour force, it is important to encourage equal division of labour both at the home and the workplace between men and women.

For instance, the government recently increased the number leave days under the maternity benefit scheme. To divide childcare responsibilities between men and women, the government should introduce paternity schemes as well. This will be a step forward and help women to divide their time between the home and the workplace. Additionally, women are enrolling more in education. However, sufficient jobs are not created in sectors such as textiles, farming and clothes manufacturing that could absorb women. The government should particularly focus on sectors that would suit the employability needs of women.

OPTIONS FOR YOUTH

A recent study conducted by Aspiring Minds (2017) indicates that 97% of engineers want jobs in software or core engineering. However, due to shortage of jobs, many engineers as well as non-engineers prefer to join a PhD programme. The regular stipend is an incentive for many to opt for higher education in India. Not only engineers but students from other streams such as science and arts also do not find jobs. As a result, higher education is the alternative for them.

According to the Indian Labor Report (2015), 1.6 crore individuals enroll in higher education due to a lack of jobs. Hence, the government should refrain from cutting research grants and reducing PhD seats. According to the recent UGC Regulations (2016) in any university, a professor can guide only eight PhD students, an associate professor can guide six PhD students and an assistant professor can guide just four Ph.D. students at a time. As a result, Jawaharlal Nehru University (JNU), one of the largest universities in the country, witnessed a massive seat cut from 1000 to 194 in the PhD programme. The government should focus on improving the quality of higher education in India because a lot of students enrol for a Ph. D. programme due to unemployment. In this context, the government should focus on the key factors of unemployment, as well as develop alternatives that will generate employment for the unemployed youth in India.

TABLE 2: TRAINING PROGRAMMES AND SCHEMES OFFERED BY CENTRAL GOVERNMENT

S. No	Department	Schemes/ Programmes/ Training programme	Target Group	Duration of long term and short term
1	Agriculture (i) Department of Agriculture Research & Education	Training in Agricultural Extension (21 training centres), Training in use of Agricultural Implements & machinery, Soil Conservation Training Centre, LFQC&TI, NPPTI, Cooperative Education and Training	Person engaged in Agricultural institutions and support services, members of cooperatives and Farmers. Under KVK, 550/589 districts are covered.	Short term courses
2	Rural Development	National Institute of Rural Development (NIRD) Conducts about 150 programmes Swarnjayanti Gram Swarozgar Yojana (SGSY)	Practicing Manager in rural development Focus is on the vulnerable groups among the rural poor. SC/ STs should account for a minimum of 50%, women for 20% and disabled for 3% of the total swarozgar is during a year.	Short term Courses Need based short term
3	Textiles	Decentralized Training Programme, 24 Weavers' Service Centres, Cooperative Training, 13 Power loom Centres, Indian Jute Industries Research Association, Central Wool Development Board, Central Silk Board, Training Centres for Handicrafts, North –eastern Handicrafts and Handlooms development Corporation	Skill upgradation of Workers in textile industry	¾ Mainly short term (15 days to 3 months). ¾ Some courses under Handicrafts are of 1 year duration.
4	Khadi & Village Industries Corporation	51 Training Centres run 35 types of programmes	Unemployed rural youths, In-job Artisans/Supervisors working in KVI instts, Prospective Entrepreneurs, Beneficiaries of different Govt. Schemes desirous of undertaking KVI activities.	2 months to 12 months

V. SUGGESTIONS

Despite the measures taken by the government, India remains a country experiencing severe unemployment problems. This section seeks to propose strategies for reducing unemployment in India. It is desirable to reduce tax rates and increase government spending which will eventually increase the aggregate demand and the rate of economic growth. Lower tax rates increase the disposable income of people and thus increase consumption and Purchasing power leading to higher aggregate demand (AD). The interest rates should be decreased which would lower the cost of credit and encourage people to spend and invest. Also, the exchange rates would get reduced and which would lead to increase export. Reduction of income tax would work as an incentive for the unemployed as well as employed. It is an attractive proposition which motivates the unemployed to join the labor market and the existing workforce to strive harder. Lower Corporation Tax encourages the young entrepreneurs to start their own Ventures. Government should invest more in human capital development to increase the employability in our country. It should also emphasis more on imparting quality education to the people. Education should be imparted in such a way that it should empower the youth with the necessary skills which can make them employable. It has been observed that unemployment is especially concentrated in certain regions. In order to overcome this geographical disparity, the government could incentivize firms to set up operations in these areas by giving tax breaks. Alternatively, financial assistance can be provided to unemployed workers who moved to established areas which have high employment. Vocation courses are recognized as an important part of under-graduation and post-graduation collages. Government should emphasis in inculcating these courses in the primary level and makes it compulsory part of the curriculum so that people so that people become proficient in their early stage of life. Career Counseling should be provided within the school and should reach all the students

VI. CONCLUSION

India is a fast growing economy. There has been enormous improvement in the unemployment scenario since the time it was recognized as a challenge. The government is implementing various measures for increasing the employment rate and has succeeded to a great extent. Participation of women and the marginalized groups speaks about the success of the policy measures. The wide spread skill development programmes have gained popularity across the nation. With better enforcement of the strategies mentioned above, the employment level can be significantly improved.

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CURBING BRAIN DRAIN: THROUGH SKILL DEVELOPMENT

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ABSTRACT

Brain Drain is "The movement of highly skilled and qualified people to a country where they can work in better conditions and earn more money". The Government of India estimated that there are 30 million Indian Diaspora spread across the world. To overcome this, Government of India has launched various skill development initiatives. Today all economies need skilled workforce so as to meet global standards of quality, to increase their foreign trade, to bring advanced technologies to their domestic industries and to boost their industrial and economic development. Thus, skills and knowledge becomes the major driving force of socio-economic growth and development for any country. This paper mainly focuses on NSDE and Indian ministry who provides various schemes for the skill development in county and curbing the brain drain in country.

KEYWORDS

brain drain, skill development.

INTRODUCTION

Skills and knowledge are the driving forces of economic growth and social development for any country. Countries with higher and better levels of skills adjust more effectively to the challenges and opportunities of world of work. As India moves progressively towards becoming a 'knowledge economy' it becomes increasingly important that the country should focus on advancement of skills and these skills have to be relevant to the emerging economic environment. In order to achieve the twin targets of economic growth and inclusive development, India's Gross Domestic Product (GDP) has to grow consistently at 8% to 9% per annum. This requires significant progress in several areas, including infrastructure development, agricultural growth coupled with productivity improvements, financial sector growth, a healthy business environment, ably supported by a skilled workforce. Having knowledge alone is not adequate to bring the changes, the need of skill to execute properly is important. Now the new ministry introduced "Skill India Mission" for the youth to meet their domestic demands and also for the betterment of economic growth of our nation. Through this mission, Jobless, school dropouts, graduated, uneducated, and women will be given training based on their knowledge and ability which will certify them to get the jobs. For the students it will be starting from the school to provide communication skill, entrepreneurship, problem-solving skills, etc.

BRAIN DRAIN

According to Oxford Advanced Learner's dictionary Brain Drain is "the movement of highly skilled and qualified people to a country where they can work in better conditions and earn more money". Cambridge Online Dictionary defines "when large numbers of educated and very skilled people leave their own country to live and work in another one where pay and conditions are better''.

The term brain-drain was introduced by observing the emigration of the various technologists, doctors and scientists, from various developing countries to more developed nations like USA, UK, Germany, England etc. Now this phenomenon of brain drain has a conversed effect for a country in which people are getting migrated and brain-drain of a nation becomes brain-gain for that particular country. Usually all developing countries including India are suffering from brain drain and developed countries like USA are having brain gain from this phenomenon. More or less, all the backward countries are suffering from this problem. India is also one of the major nations in the world which is suffering from this brain drain seriously at the present moment. Indian Diaspora is a geographically diversified Diaspora, which is spread in as many as 110 countries. The nature of settlement of Indian Diaspora can broadly divide into two parts, namely „old Diaspora" and „new Diaspora". The prominent countries that figure in the old Indian Diaspora are Malaysia, Mauritius, Trinidad and Tobago, Fiji, Guyana, and Suriname and the important countries with the new Diaspora are all the developed countries like – USA, UK, Canada, Australia and New Zealand.

CAUSES FOR BRAIN DRAIN

1- **Unemployment-**One of the main reasons is the widespread unemployment and underemployment in our country. The excess of skilled professionals in India has bred an army of educated unemployed. Rather than return home to unemployment, skilled Indians prefer to stay back in the West, where professionals command at better market value.
2- **Lack of research facilities** -lack of research facilities in India is also one of the causes for Brain Drain from India. Scientists and other research professionals need sophisticated equipment to carry on their research related works. The better job conditions and higher standard of living in those countries lure these qualified professionals to decide to stay on there.
3- **Lack of interesting work.**US/UK or other developed nation has been sending their dirty jobs to India since ages. Earlier we used to take up call centre jobs of other countries, now we take the back-end IT support for them. It's horrible and totally uninteresting. We don't have any designing, conceptualization or thought process involved in our work. We get a set of instructions from them and we have to implement that by the coding standards given by them. There's no creativity involved. After a certain amount of time, it becomes horribly boring and that's when the engineer flips out and takes a rapid decision of doing an MBA and hoping desperately that in the managerial position the scenario will be different. No, it's not. Then comes the depression and angst and we move to U.S. that at least there we'll find something exciting to do.
4- **Psycho-social problem**: The main flow of brain drain as a change of domicile starts from the under developed countries towards the developed one, due to social, cultural and psychological factors due to references for living in certain countries. The major geographical direction of brain drain is from the South to the North, i.e. from Latin America to the United States, from Africa to Europe and to the U. S. and from the East to the West, i.e. from the Asian non-socialist countries to Europe, and from Europe to the United States and also from Asian countries to the middle East North African (MENA) Nations.

SKILL DEVELOPMENT NECESSARY TO ABSORB THE BRAIN DRAIN

For India to confront brain drain, skill development programme must be spread in the youngster and talented worker among the country. As India targets to becoming a global economic powerhouse, it needs to equip its workforce with employable skills and knowledge to make India a developed economy. India is today one of the youngest nations in the world with more than 62% of the population in the working age group (15-59 years), and more than 54% of the total population below 25 years of age. In fact, in next 20 years, the labour force in the industrialised world is expected to decline by 4%, while in India it will increase by 32%. However, current statistics shows that only 2% of the total employees in India have completed skill development training. In today's age of globalisation and technological volatility, skill building is an important instrument to increase the efficacy and quality of labour for improved productivity and economic growth. Skills and knowledge development are the driving forces behind the financial growth and community development of any country. Skill building is a powerful tool to empower individuals and improve their social acceptance. It must be complemented by economic growth and employment opportunities to meet the rising aspirations of youth. The challenges lie not only in a huge quantitative expansion of facilities for skill training, but also in raising their quality. India can then

become the global sourcing hub for skilled employees. Today, the world and India need a skilled workforce. If we have to promote the development of our country, then our mission has to be `skill development' and `Skilled India'. Millions and Millions of Indian youth should acquire the skills which could contribute towards making India a modern country.

INDIGENOUS SKILL DEVELOPMENT PROGRAMME

TABLE 1

Ministry/ Department/ Organisation	Scheme Covered
1. M/o Labour & Employment	1. Craftsmen Training Scheme (CTS through ITI/ITCs). 2. Modular Employable Skills (SDIMES) scheme 3. Apprenticeship Training Scheme (ATS)
2. M/o Micro, Small & Medium Enterprises	1. Entrepreneurship Development Program Scheme 2. Business Skill Development Program (BSDP) 3. Entrepreneurship Skill Development Prog.(Biotechnology) 4. Skill development through tool rooms and other autonomous MSME institutes 5. Skill development through KVIC and Coir Board
3. M/o Agriculture	1. National Food Security Mission Farmer Field Schools 2. National Horticultural Mission 3. National Project on Management of Soil Health and Fertility 4. National Scheme on Promotion and Strengthening of Agricultural Mechanization through training, testing and demonstration 5. Establishment of Agric-clinics and Agribusiness Centres Scheme 6. Diploma in Agricultural Extension Services for Input Dealers 7. Support to State Extension programs for Extension Reforms (ATMA -Farm Schools
4. M/o Rural Development	1. SGSY (Swarnajayanti Gram Swarozgar Yojana) scheme 2. Skill Development through R-SETIs
5. D/o Higher Education	1. Community Development through Polytechnics 2. Graduate apprenticeships
6. M/o Women & Child Development	1. Women Empowerment & Livelihood program in the mid genetics plain -Priyadarshini scheme 2. Support to training and employment program for women (STEP) 3. Advanced Diploma in Child Guidance and Counselling (NIPCCD) 4. Training courses in Home Scale Preservation of Fruits and Vegetables and Nutrition (FNB) 5. Short Stay Home (SSH) 6. Condensed Course of Education for Women (CSWB) 7. Rajiv Gandhi Scheme for Empowerment of Adolescent Girls (SABLA) -formerly Kishori Shakti Yojana scheme
7. M/o Housing & Urban Poverty Alleviation	1. SJSRY (Swarna Jayanti Shahari Rozgar Yojana) Scheme
8. M/o Tourism	1. Hunar se Rozgar tak Scheme
9. M/o Social Justice & Empowerment	1. Skill development through 4 corporations (National Scheduled Caste Finance and Development Corporation (NSFDC), National Backward Classes Finance and Development Corporation (NBCFDC), National Safai Karamcharis Finance Development Corporation(NSKFDC) and National Handicapped Finance and Development Corporation (NHFDC)) and 7 national institutes 2. Skill development to be further opened up through Babu Jagjivan Ram Chhatrawas Yojana and Scheme of Special Central Assistance (SCA) to Special Component Plan for the Scheduled Castes
10. M/o Textiles	1. Integrated Skill Development Scheme (ISDS)
11. D/o Heavy Industries	1. Skill development through CPSEs
12. Department of IT	1. Training through C-DAC (Centre for Development of Advanced Computing) 2. Training through NIELIT
13. Ministry of Food Processing Industries	1. National Mission on Food Processing (through States)
14. Ministry of Road Transport and Highways	1. Scheme for setting up Institutes on Driver Training & Research (IDTRs)
15. Ministry of Tribal Affairs	1. Vocational Training Centre in Tribal Area (VTC) scheme 2. Skill development through grant-in-aids to NGOs
16. Ministry of Chemicals and Fertilizers	1. Trainings through own institutes -CIPETs
17. Ministry of Commerce	1. Placement linked skill development scheme (under the Indian Leather Development Programme)
18. M/o Skill development & Entrepreneurship	To provide encouragement to youth for development of employable skills by providing monetary rewards by recognition of prior learning or by undergoing training at affiliated centres.

NATIONAL SKILL DEVELOPMENT &ENTREPRENEURSHIP

Skill India is an initiative of the Government of India which has been launched to empower the youth of the country with skill sets which make them more employable and more productive in their work environment. Our National Skill Mission is chaired by the Hon'ble Prime Minister, Shri Narendra Modi himself. India is a country today with 65% of its youth in the working age group. If ever there is a way to reap this demographic advantage, it has to be through skill development of the youth so that they add not only to their personal growth, but to the country's economic growth as well.

Skill India offers courses across 40 sectors in the country which are aligned to the standards recognised by both, the industry and the government under the National Skill Qualification Framework. The courses help a person focus on practical delivery of work and help him enhance his technical expertise so that he is ready for day one of his job and companies don't have to invest into training him for his job profile.

The Skill Mission launched by the Prime Minister on 15 July 2015, has gathered tremendous steam under the guidance of Shri Rajiv Pratap Rudy, Union Minister of State for Skill Development and Entrepreneurship, during the last one year. The target to train more than a crore fresh entrants into the Indian workforce has been substantially achieved for the first time. 1.04 Crore Indians were trained through Central Government Programs and NSDC associated training partners in the private sector.

For the first time in 68 years of India's independence, a Ministry for Skill Development & Entrepreneurship (MSDE) has been formed to focus on enhancing employability of the youth through skill development. The skill ecosystem in India, is seeing some great reforms and policy interventions which is reinvigorating and re-energising the country's workforce today; and is preparing the youth for job and growth opportunities in the international market. The Hon'ble Prime Minister's

flagship scheme, Pradhan Mantri Kaushal Vikas Yojana (PMKVY) alone, has till date seen close to 20 lakh people get skilled and prepared for a new successful India. Skill India harbours responsibility for ensuring implementation of Common norms across all skill development programs in the country so that they are all standardized and aligned to one object. The ITI ecosystem has also been brought under Skill India for garnering better results in vocational education and training. The success of a nation always depends on the success of its youth and Skill India is certain to bring a lot of advantage and opportunities for these young Indians. The time is not far when India will evolve into a skilled society where there is prosperity and dignity for all.

The Ministry is responsible for co-ordination of all skill development efforts across the country, removal of disconnect between demand and supply of skilled manpower, building the vocational and technical training framework, skill up-gradation, building of new skills, and innovative thinking not only for existing jobs but also jobs that are to be created.

The Ministry aims to Skill on a large Scale with Speed and high Standards in order to achieve its vision of a 'Skilled India'. It is aided in these initiatives by its functional arms – National Skill Development Agency (NSDA), National Skill Development Corporation (NSDC), National Skill Development Fund (NSDF) and 33 Sector Skill Councils (SSCs) as well as 187 training partners registered with NSDC. The Ministry also intends to work with the existing network of skill development centres, universities and other alliances in the field. Further, collaborations with relevant Central Ministries, State governments, international organizations, industry and NGOs have been initiated for multi-level engagement and more impactful implementation of skill development efforts.

SKILL DEVELOPMENT SCHEMES LAUNCHES BY THE MINISTRY

- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)-**Approved for another four years (2016-2020) to benefit 10 million youth Pradhan Mantri Kaushal Vikas Yojana (PMKVY) is the flagship scheme of the Ministry of Skill Development & Entrepreneurship (MSDE). The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL). Under this Scheme, Training and Assessment fees are completely paid by the Government.
- **UDAAN-**Udaan is a Special Industry Initiative for Jammu & Kashmir in the nature of partnership between the corporate of India and Ministry of Home Affairs and implemented by National Skill Development Corporation. The programme aims to provide skills training and enhance the employability of unemployed youth of J&K. The Scheme covers graduates, post graduates and three-year engineering diploma holders. It has two objectives:
  - **(i)** To provide an exposure to the unemployed graduates to the best of Corporate India.
  - **(ii)** To provide Corporate India, an exposure to the rich talent pool available in the State.
- **Standard Training Assessment and Reward (STAR) Scheme**-The National Skill Certification and Monetary Reward Scheme, known as STAR (Standard Training Assessment and Reward) was operational between August 2013 and September 2014.

NSDC is the designated implementing agency of the scheme and is working through various Sector Skill Councils (SSCs), Training Providers (TPs) and independent Assessment Agencies (AAs).

- **Higher Education-** In order to bridge the industry academia gap – NSDC has developed a unique model to integrate skill based trainings into the academic cycle of the Universities. These are based on National Occupational Standards set by industry through sector skill councils. The job roles offered are designed to be progressive in nature – from Level 5 – level 7 on National Skills Qualification framework. The key highlight of the model is as given below:

I. Based on state skill gap report – identification of Sectors and job roles
II. Development of implementation model and Integration into time table as per university norms
III. Training of Trainers by Sector Skill Council
IV. Curriculum Alignment and Capacity Building workshops
V. Student orientation sessions to take an informed choice of sector/job role based on career aspiration
VI. Standardised Training Delivery by NSDC Training Partners
VII. Internships and On- the – job Training
VIII. Assessment and certification by Sector Skill Council
IX. Last Mile Employability and Entrepreneurship Opportunities for the students Academia recognise the benefits of this model for integration of industry recognized skills with regular studies and post assessment the students receive industry endorsed and recognized certificate.

- **World Skills-** What Is World Skills India?

World Skills India is an initiative of the National Skill Development Corporation (NSDC) under the Ministry of Skill Development and Entrepreneurship. NSDC, through its World Skills India initiative, has been leading the country's participation at World Skills International competitions since 2011.

The key objectives of World Skills India are to:

- Promulgate skills in the society and motivate the youth to pursue vocational education.
- Champion skills and learning for work through local, regional, national and international skills competition and contribute to the society.
- Invite sponsorships to organize the local, regional, national and international skills competitions and also host international competitions.
- Establish links and a long-term association with the WSI secretariat along with development of cooperation with the Government of India, state Governments, registered vocational skills training and awarding bodies.

ROLE OF NSDC

- Establish linkages and contacts with various stakeholders of the industry to promote the association.
- Provide support and synergy for efforts of World Skills India through its Skills Development initiatives.
- Provide administrative and technical support to the participants and experts for the World Skills Competitions.

CONCLUSION

For the balance of power and for the staggered development of the world, it is very important to stop the phenomena of brain-drain. To hold skilled workers at their native places, it is also important to provide them enough work opportunities and living facilities. By skill development programme and schemes provide the better option for the youth and experts to serve their country by their expertness and intelligence. This review paper concluded that era has been changed now, skilled people now give preference to work in own country. But these all schemes and programme successful until theses all implemented very carefully and approachable to the desired people.

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IMPROVING CLASSIFICATION PERFORMANCE USING ENSEMBLE LEARNING APPROACH

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ABSTRACT

The data mining techniques are used for evaluation of the data in order to find and represent the data in such manner by which the applications are becomes beneficial. Therefore, different kinds of computational algorithms and modeling's are incorporated for analyzing the data. These computational algorithms are help to understand the data patterns and their application utility. The data mining algorithms supports supervised as well as unsupervised techniques of data analysis. This work is aimed to investigate about the supervised learning technique specifically performance improvements on classification techniques. The proposed classification model includes the multiple classifiers namely Bayesian classifier, k-nearest neighbor and the c4.5 decision tree algorithm. By nature of the outcomes and the modeling of the data these algorithms are functioning differently from each other. Thus, a weight based classification technique is introduced in this work. The weight is a combination of outcomes provided by the implemented three classifiers in terms of their predicted class labels. Using the weighted outcomes, the final class label for the input data instance is decided. The implementation of the proposed working model is performed with the help of JAVA and WEKA classes. The results obtained by experimentation of the proposed approach with the vehicle data set demonstrate the high accurate classification results. Thus, the proposed model is an effective classification technique as compared to single model implementation for classification task.

KEYWORDS

data mining, classification, supervised learning, ensemble learning, performance improvement.

INTRODUCTION

Data mining is a task of data analysis. In this process the similarity and difference among the available set of data is computed. Using this technique, the patterns are established that is used for different applications in order to make decisions, classifications and predictions. According to the algorithm applied on data these applications are performed. These various kinds of algorithms which are categorized in two major categories namely supervised approaches and unsupervised approaches. In this work the supervised learning approaches are studied more specifically the classification algorithms. Basically, the classification algorithms first learn from the data and then used for classifications of similar patterns.

The learning of the algorithm depends upon the quality of data and the present noise in the data patterns. Additionally, the process of learning is also creating impact of learning. But in supervised learning techniques it is expected to generate the high accurate results in less time resource consumption. Therefore, the performance improvement of classification technique is one of the essential tasks in data mining in terms of classification accuracy and the resource consumption. The performance can be improved in three major phases by enhancing the quality of data therefore the feature extraction techniques are used, or by manipulating the learning algorithm in these techniques the traditional algorithms are modified for improving the learning capability or by implementing the ensemble learning algorithms. In this work the study of ensemble learning is the primary aim of the work additionally enhancing the traditional approach of learning is the second key aim.

PROPOSED WORK

This chapter provides the details about the proposed system design and their functional aspects. Therefore, first the overview of the system is provided and then the system model is described. Finally, the proposed approach is summarized using the algorithm steps.

A. SYSTEM OVERVIEW

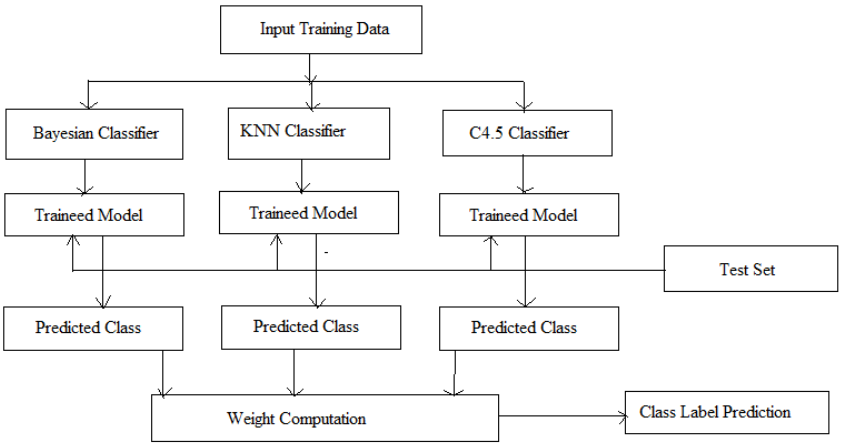
In data mining techniques, the performance improvements can be performed in all the three possible stages of data analysis. In data mining the three phases are dataset input, training using the algorithm and the testing of the algorithm. During the input of data, the data can also be transformed for recovering the essential features for training, or by pre-processing techniques the quality of data can be optimized. In next the modification and enhancements can also be performed by optimizing the learning algorithms. Finally, in the post processing stages the performance can also be optimized. These post processing techniques are termed as the ensemble learning techniques such as bagging and boosting.

By the motivation of the ensemble learning techniques the proposed work is intended to design a new weighted technique for improving the classification performance. This technique incorporates more than on learner in classification system and using the predicted outcomes of these learners the combined outcome for the single instance of data is generated. The combination of results is given using the weight building. The weights are computed on the basis of some intermediate coefficients. That is user dependent values which are vary between 0-1. Additionally, according to the requirements these values can be adjusted by the designer. By using these coefficients and the predicted outcomes of the classifiers the final outcome of classifier is predicted. The proposed technique's overview is described in this section and the next section explains the working of the proposed methodology.

B. SYSTEM DESIGN

The proposed classification technique is demonstrated using figure. The different components of the system are also listed in this diagram. The detailed description of the involved components is given as:

FIGURE 1: PROPOSED SYSTEM



Input dataset: the data mining systems are works on the data for finding the valuable patterns. In this experiment the structured data is used for analysis and design. Therefore, the vehicle dataset is used for experimentation and design. This dataset is available in ARFF (attribute relationship file format) and CSV (comma separated file) in UCI repository. Not only can the vehicle data set function in this system other ARFF files can also works with the system.

Bayesian classifier: The standard approach to Bayesian classification uses the chain rule to decompose the joint distribution:

$$\Pr(C, A_1, A_2, \ldots, A_k) = \Pr(C)\Pr(A_1, A_2, \ldots, A_k|C) \ldots\ldots\ldots\ldots (1)$$

The first term on the right-hand side of (1) is the prior probability of the class labels. These can be directly estimated from the training data, or from a larger sample of the population. For example, we can often get statistics on the number of, say, breast cancer occurrences in the general population. The second term on the right-hand side of (1) is the distribution of attribute values given the class label. The estimation of this term is usually more complex, and we elaborate on it below.

Once we have an estimate of $\Pr(C)$ and $\Pr(A_1, A_2, \ldots, A_k|C)$ we can use Bayes rule to get the conditional probability of the class given the attributes:

$$\Pr(C|A_1, A_2, \ldots, A_k) = \alpha \Pr(C)\Pr(A_1, A_2, \ldots, A_k|C) \ldots\ldots\ldots\ldots\ldots (2)$$

where α is a normalization factor that ensures that the conditional probability of all possible class labels sums up to 1. (In practice, we do not need to explicitly evaluate this factor because it is constant for a given instance.) Using (2) we can classify new instances by combining the prior probability of each class with the probability of the given attribute values given that class.

The Naive Bayes classification algorithmic rule is a probabilistic classifier. It is based on probability models that incorporate robust independence assumptions. The independence assumptions usually don't have an effect on reality. So, they're thought of as naive. You can derive probability models by using Bayes' theorem (proposed by Thomas Bayes). Based on the nature of the probability model, you'll train the Naive Bayes algorithm program in a very supervised learning setting. In straightforward terms, a naive Bayes classifier assumes that the value of a specific feature is unrelated to the presence or absence of the other feature, given the category variable. There are two types of probability as follows:

- Posterior Probability [P (H/X)]
- Prior Probability [P (H)]

Where, X is data tuple and H is some hypothesis. According to Bayes' Theorem

$$P\left(\frac{H}{X}\right) = \frac{P\left(\frac{X}{H}\right)P(H)}{P(X)}$$

KNN classifier: The K-nearest-neighbor algorithm measures the distance between a query scenario and a set of scenarios in the data base. The distance between these two scenarios is estimated using a distance function d (x, y), where x, y are scenarios developed through features, like

$$X = \{x_1, x_2, x_3, \ldots\}$$
$$Y = \{y_1, y_2, y_3, \ldots\}$$

The frequently used distance functions are absolute distance measuring using:

$$d_A(x, y) = \sum_{i=1}^{N} |x_i - y_i|$$

And second is Euclidean distance measuring with:

$$d_A(x, y) = \sum_{i=1}^{N} \sqrt{x_i^2 - y_i^2}$$

The overall KNN algorithm is running in the following steps:

1. Store the output values of the M nearest neighbors to query scenario Q in vector r = {r_1,.....,r_m} by repeating the following loop M times:
   a. Go to the next scenario S_i in the data set, where I is the current iteration within the domain {1.....P}
   b. If Q is not set or q < d (q, S_i): q ←d (q, S_i), t ←O_i
   c. Loop until we reach the end of the data set.
   d. Store q into vector c and t into vector r.
2. Calculate the arithmetic mean output across r as follows:

$$\bar{r} = \frac{1}{M}\sum_{i=i}^{M} r_i$$

3. Return r as the output value for the query scenario q

C4.5 classifier: C4.5 (developed by Quinlan, 1993) an algorithm that learns the decision-tree classifiers, it has been observed that C4.5 performs short in the domain where there is pre-entrance of continuous attributes compared with the learning tasks with mostly separate attributes. For instance, a system which looks for well-defined decision tree with 2 levels and then put comments [8]:

"The accuracy of trees made with T2 is equalized or even exceed trees of C4.5 upon 8 out of all the datasets, with the entire except one that have incessant attributes only."

INPUT: An exploratory data set of data (D) portrayed with the means of discrete variables.

OUTPUT: A decision tree say T which is constructed by means of passing investigational data sets.

1) A node (X) is created;
2) Check if the instance falls in the same class.
3) Make node (X) as the leaf node and assign a label CLASS C;
4) IF attribute list is empty, THEN
5) Make node(X) a leaf node and assign a label of most customary CLASS;
6) Now choose an attribute which has highest information gain from the provided attribute List, and then marked as the $test_{attribute}$;
7) Confirming X in the role of the $test_{attribute}$;
8) In order to have a recognized value for every $test_{attribute}$ for dividing the samples;
9) Generating a fresh twig of tree that is suitable for $test_{attribute}$ = att_i from node X;
10) Take an assumption that Bi is a group of $test_{attribute}$ =att_i in the samples;
11) If Bi = = NULL, THEN
12) Add a new leaf node, with label of most common class;
13) ELSE a leaf node is going to be added and returned by $Generate_{decisionTree}$.

This section provides the implementation of the classical C4.5 algorithm the next section provides the concept for enhancing the model performance.

Trained model: after processing of the training set the system generates the mathematical model for evaluation of similar kinds of data patterns. In this context, the Bayesian classifier computes the probability for events, KNN classifier computes the distance among the available data instances and the C4.5 algorithm generates the tree structure for the input training set. This tree structure help to invoke the test set attributes for predicting the class labels.

Test set: the test set is additional sample data which is used for evaluation of data model. After preparing the data models the test set instances are evaluated one by one to generate the class labels. In this context, the KNN algorithm finds the likely instances of data with their classes, similarly the Bayesian classifier computes the posterior probability for finding the class labels and finally the C4.5 generate the class labels by using the tree invocation process.

Predicted class: all the implemented classification techniques accept the test data as input and for each instance of the data the classifiers generates the class labels. According to the generated classes and the data instance is produced in next step for computing the weights and generating the final classes for the instance data.

Weight computation: the predicted class labels by the trained classifiers are used here for computing the final class label for data instance. In order to compute the weights the class labels are treated here in terms of numerical values. In order to compute the weights for predicted outcome the following formula is used:

$$W = C_1 * w_1 + C_2 * w_2 + C_3 * w_3$$

Where, W is the computed weight of the class, and C_1, C_2 and C_3 are the classes predicted by the classifiers. And w_1, w_2 and w_3 are the coefficient selected between 0-1 and such that $w_1 + w_2 + w_3 = 1$. That is user dependent function which can be regulated according to the priority of the designer. In this presented work the weight coefficients are equally distributed for 0.33 to all the classifiers.

Class labels: that is the final outcome of the proposed ensemble learning based classification technique. That is the most likely outcome which is predicted by the implemented classifiers on the basis of weights.

C. Proposed Algorithm

This section provides the understanding about the proposed classification algorithm. That algorithm is summary of the entire steps involved in the proposed working model. Following table contains the proposed algorithm steps:

TABLE 1: PROPOSED ALGORITHM

Input: training dataset T, testing dataset Ts Output: class labels of test dataset C
Process: 1. $R = ReadTrainingSet(T)$ 2. $B_{model} = Bays.Train(R)$ 3. $K_{model} = KNN.Train(R)$ 4. $C4.5_{model} = C45.Train(R)$ 5. $Ts_m = readTestingDataset(Ts)$ 6. $for(i = 1; i \leq m, i++)$ a. $C_1 = B_{model}.classify(Ts_i)$ b. $C_2 = K_{model}.classify(Ts_i)$ c. $C_3 = C4.5_{model}.classify(Ts_i)$ d. $W = 0.33 * C_1 + 0.33 * C_2 + 0.33 * C_3$ e. $C_i = Math.Round(W)$ 7. End for 8. Return C

RESULTS ANALYSIS

The performance of the proposed hybrid algorithm over different classifier algorithms are evaluated and compared in this chapter. Therefore, the different performances factors are evaluated and demonstrated in this section i.e. accuracy, error rate, memory consumption and time complexity.

A. Accuracy

The performance of the classifier in terms of accuracy is given in this section. The performance evaluation of proposed hybrid classifier is evaluated using implementation of all three classifiers. The accuracy of the system can be given using the following formula.

$$\text{Accuracy} = \frac{\text{Total Correctly Classified Samples}}{\text{Total Samples Avilable}} \text{X100}$$

The performance of the proposed system and another individual classifier algorithm is provided using the following figure and table. In all the experimentation, we take a similar data set for k-NN, C4.5, Bayesian and proposed hybrid classification approach of different experiments. The blue bars in the given figure contain the hybrid classification performance for the original datasets without any change. The brown bar of the figure demonstrates C4.5; similarly, orange and yellow bar depicts the kNN and Bayesian classifiers. According to the obtained results the proposed classifier performs much better learning for proposed data quality enhancement and improvement classification of the system as compared to other classifiers. In this graph, proposed classifier obtaining higher accuracy rate for large number of correct data classification.

GRAPH 1: COMPARE ACCURACY

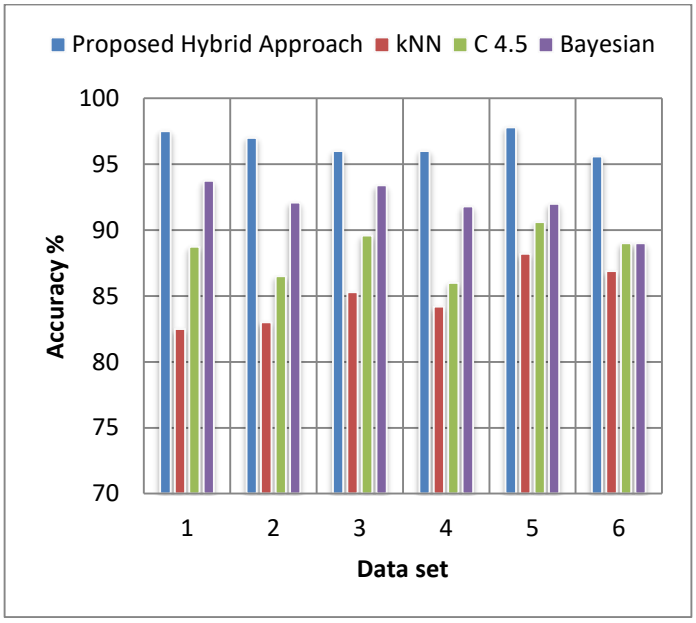


TABLE 2: TABULAR FORM OF ACCURACY

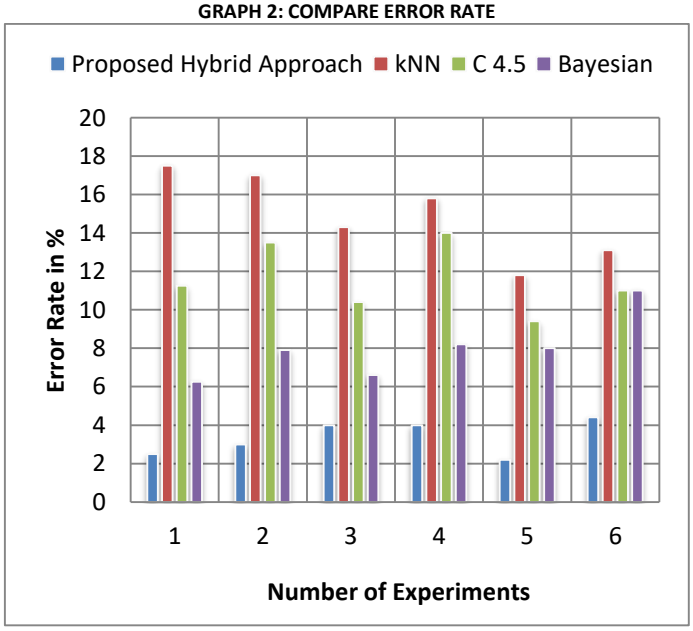
Number of Experiments	Proposed Hybrid Approach	k-NN	C 4.5	Bayesian
1	97.5	82.5	88.75	93.75
2	97	83	86.5	92.1
3	96	85.3	89.6	93.4
4	96	84.2	86	91.8
5	97.8	88.2	90.6	92
6	95.6	86.9	89	89

B. Error Rate

The error rate of the classifier reports the amount of data that are not properly recognized during the classification. The error rate of the classifiers can be evaluated using the following formula.

$$\text{Error Rate} = \frac{\text{Misclassified Samples}}{\text{Total Samples to Classify}} \text{X100}$$

GRAPH 2: COMPARE ERROR RATE



In this figure and table shows the error rate of the implemented classification system. Therefore, to represent the performance of the algorithms the X axis contains the different experimental individually and the Y axis shows the error rate percentage of all classifiers. In above demonstration, high percentage of error rate is producing by kNN classifier which has high number of misclassified pattern, whereas other two classifiers have average error rate performance. According to the obtained performance the proposed technique produces the less error rate where less number of data have been misclassified as compared to the other remain 3 classifiers. Therefore, the proposed technique is much effective for classification improvement

TABLE 3: TABULAR FORM OF ERROR RATE

Number of Experiments	Proposed Hybrid Approach	k-NN	C 4.5	Bayesian
1	2.5	17.5	11.25	6.25
2	3	17	13.5	7.9
3	4	14.3	10.4	6.6
4	4	15.8	14	8.2
5	2.2	11.8	9.4	8
6	4.4	13.1	11	11

C. Memory Consumption

Memory consumption of the system also termed as the space complexity in terms of algorithm performance. This can be calculated using the following formula:

$$\text{Memory Consumption} = \text{Total Memory} - \text{Free Memory}$$

The amount of memory consumption depends on the amount of data reside in the main memory, therefore that effect the computational cost of an algorithm execution. The performance of the implemented proposed classifier along with other traditional classifier for data classification is given using figure and table. For reporting the performance, the X axis of figure contains the different number of code execution and the Y axis shows the respective memory consumption of proposed and other classifiers during the execution of system in terms of kilobytes (KB). According to the obtained results the performance of the proposed Hybrid Classification approach consuming moderate space of the system when data being executing. By the given graph, C4.5 and Bayesian are taking little space for execution where proposed approach and K-NN taking high number of space. Therefore, we conclude that it is the limitation of the project of space complexity.

GRAPH 3: COMPARE MEMORY CONSUMPTION

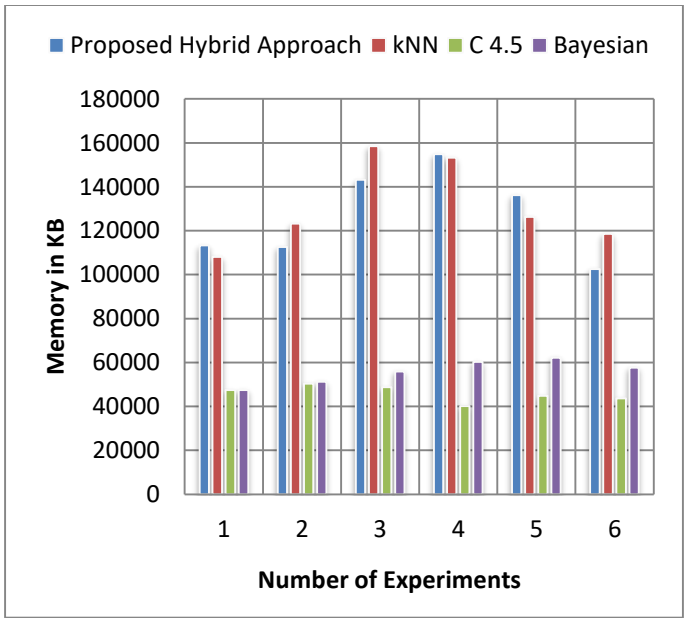


TABLE 4: TABULAR FORM OF MEMORY

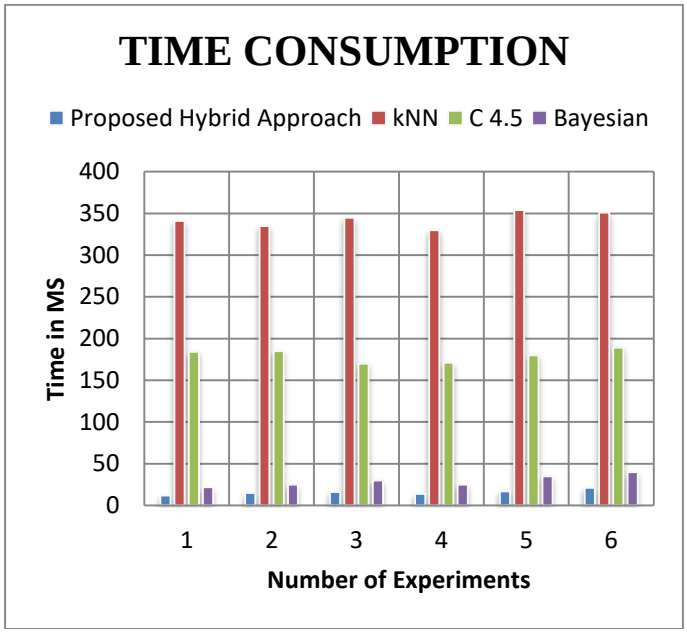
Number of Experiments	Proposed Hybrid Approach	k-NN	C 4.5	Bayesian
1	113335	108030	47511	47525
2	112547	123251	50321	51246
3	143261	158456	48792	55846
4	154812	153251	40215	60251
5	136251	126254	44782	62147
6	102542	118541	43625	57593

D. Time Consumption

The amount of time required to classify the entire test data is known as the time consumption. That can be computed using the following formula:

$$\text{Time Consumed} = \text{End Time} - \text{Start Time}$$

GRAPH 4: COMPARE TIME CONSUMPTION



The time consumption of the proposed algorithm is given using figure and table. In this diagram the X axis contains the experimental scenario and the Y axis contains time consumed in terms of seconds for implemented classifiers. According to the comparative results analysis and given the performance hybrid classification approach is executing small amount of time to process the dataset. In similar way, Bayesian also taking small amount of time but in respective of proposed it is little high amount of time consuming. We analysis the resulting graph where different data set produces result monotonically as consume less time to process dataset.

TABLE 5: TABULAR FORM OF TIME VALUES

Number of Experiments	Proposed Hybrid Approach	k-NN	C 4.5	Bayesian
1	12	341	184	22
2	15	335	185	25
3	16	345	170	30
4	14	330	171	25
5	17	354	180	35
6	21	351	189	40

Using the Template

The main of the proposed work to investigate and design an ensemble learning based technique is accomplished successfully. This chapter provides the conclusion of the conducted research work and the obtained experimental results. In addition of that the feasible future work is also suggested in this chapter.

CONCLUSION

Data mining techniques supports various kinds of data modeling according to the requirements of the application and required outcomes. In addition of that the utilization of algorithms are also depends on the nature and type of data. In this presented work, the classification techniques are main aim of study. The classification techniques are the supervised learning approaches that are used for prediction, pattern recognition, decision making and other complicated task. In these applications, the high accurate outcomes are required to be obtained. Therefore, different techniques of performance optimization of classifiers are utilized. In this presented work, the post processing of classifiers is studied and according to the obtained conclusion a new model for learning and accurate classification is presented. The proposed technique is motivated form the ensemble learning approach where the goodness of multiple classifiers is combined to optimize the final classification outcomes.

Thus, the proposed work is intended to improve the performance of classification by using the traditional classifiers. Therefore, the ensemble learning approach is proposed for study. In this context three base classifiers namely Bayesian classifier, KNN (k-nearest neighbor) and C4.5 decision tree is selected for designing and developing the proposed system. Basically, the Bayesian classifier is a probabilistic approach of classification, kNN is the distance based classification approach and the C4.5 algorithms is a rule based data model that works on the basis of tree data modeling. Therefore, the functional process of the system is different from each other and need to find a suitable manner by which the outcomes of the classification can be optimized accordingly. Initially all the classifiers are trained using the similar training samples. During training the actual functionality of the classifiers are remain same. In further a test sample is also prepared that is the 30% of entire training data which is randomly selected from the initial training set. The test set is applied on the trained models and their predicted outcomes are gathered. These outcomes are used in next process for computing the final class labels for the data instances.

The implementation of the proposed system requires the JAVA technology and the WEKA class libraries to be implemented for finding required results. During different number of experiments, the obtained results are noticed and their mean values are reported in the below table.

TABLE 6: MEAN PERFORMANCE

Parameters	Proposed	K-NN	C4.5	Bays
Accuracy	96.65 %	85.09 %	88.41 %	92.01 %
Error	3.35 %	14.91 %	11.59 %	7.99 %
Time	15.83 MS	342.66 MS	179.83 MS	29.5 MS
Memory	127124.66 KB	131297.16 KB	45874.33 KB	55768 KB

According to the obtained performance as given in above table the proposed technique is able to generate more accurate classification as compared to single classification technique implementation. Thus, the proposed technique is acceptable where the accuracy is required as compared to resource preservation.

FUTURE WORK

According to the computed results and the performance the proposed technique is found suitable and efficient for utilizing in the other applications where the accurate decisions are required. In near future, the following is work is feasible for extending the current implemented system.

1. In near future, the work is extended for rule based classification enhancement and their optimization

2. The work can also be extendable with more classifiers such as neural network, SVM and others
3. Need to improve the required memory consumption for utilizing in the other applications.

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A STUDY ON DETERMINANTS OF ONLINE ADS QUALITY

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ABSTRACT

Recent years are a testimony to the astonishing development of the Internet, an increasingly important factor in current lifestyle. Internet advertising, as well, has seen a similar development, since marketers' online advertising budgets are growing as the years go by. In this study, I also characterized the respondents with respect to their preferred type of advertisement. The online ads quality should be measured based on the various factors like content, time limit and location factors. Everyone feels irritated by online ads that they think ads are distractive and misleads them. The results of the latter showed that the number of clickers on banner advertisement is higher than that of pop-up advertisement, and that its efficiency rates are higher as well. Clearly, Internet advertising is different in some fundamental ways from other forms of advertising. Researchers and practitioners seem to have identified four key differences. Traditionally, marketers have talked about the need for setting different kinds of objectives for advertising and marketing based on the notion that advertising works on the communication aspects of the hierarchy (e.g. awareness, attitude) while marketing works on the higher-level behavioral goals (e.g. purchase, brand loyalty). Advertising traditionally took place in the media while the retail environment was the place to focus on changing behaviors.

KEYWORDS

online advertising, effectiveness of online ads, determinants of ads quality.

INTRODUCTION

With the introduction of internet in our daily life, it has become a need for everyone. People use internet for everyday tasks. Internet is no longer just a medium of getting information for people. It has now taken shape of the most powerful medium of communication, entertainment and shopping for people. Every day, several new websites are being introduced covering different sections like news, e-commerce, information, communication or entertainment. These websites are a perfect place to advertise products and services as many people visit these sites every day from different parts of the world. Another important place for advertisement of the brand name, products or services can be online communities, forums, social networking sites or affiliate marketing websites. They provide immense organic traffic to the website representing the business or brand name While traditional offline advertising is used by many companies to drive customers to their websites, many businesses are trying online ads (such as banners, pay-per-click ads, pay-per-call ads and pop-ups) in e-newsletters, on compatible websites, on search engines and in online versions of newspapers and magazines as a way of reaching people who use the internet for shopping or to gather information. While online advertising is still new to many, you can take heart in the fact that the same design and content requirements and guidelines translate well from traditional advertising to online ads. In fact, your newspaper print ads can simply be duplicated in the online version of the publication you're advertising in as long as you include a link to your website. Color, fonts, the size of your ad(s) and your message will all play the same critical role in getting your ads noticed and, more important, responded to. No one wants to have to wade through too much text to understand an ad's message. So present your message concisely and clearly, and relate it to an emotion or a situation shared by the consumers you're trying to reach. As with traditional ads, online ads must be placed where the right people will see them ("right people" meaning the consumers you want to reach). So choose your placements according to age and gender, interests, hobbies, and all the psychographic (income, education, hobbies, etc.) information you use when you're buying ads in television, print or radio.

Center gatherings can help you decide the look of your promotions so they draw in the purchasers you truly need to reach. Pulling in the eye starts things out - remember that what they see thinks about straightforwardly your organization. Make certain that when they get to your site or call you, they're not frustrated with that "next stride." Your site must load rapidly, be effectively explored, and not require an excessive number of structures to finish or involve an excessive number of ventures to get to the last request or look at or call. Individuals noting your telephones must be educated, useful, brisk and ready to precisely catch data, take requests and offer data on different items or administrations you have accessible.

Pay-per call advertisements are new, however consider how engaging this is for a customer or planned customer who needs an answer now or necessities to make a buy now to have the capacity to make a brisk call and deal with their squeezing need, instead of tapping on a pennant and being directed to your site where they may need to fill in an enrollment frame and afterward send you an email and sit tight for an answer.

Consumers. Advertising can be through a variety of media, namely electronic media and print in making the ads need to understand the direct purpose of advertising is to create the effect of advertising because communication is a process of communication which in turn will help the sale. Advertising is the message of a brand, product, or company submitted to the audience through the media (SIH, 2010: 12). Effective advertising is not just conveying information, but also convey the message that will generate a positive image for media. In this study will take the electronic media, especially advertising on the internet. The utilization of the web as a limited time publicizing today is exceptionally fascinating on the grounds that it depends on the advancement of Internet clients are extremely fast and huge increment consistently making the organization started to consider utilizing the web as a medium to advance their items. Through the web little, medium or extensive can give item data, value, buy terms, requesting and installment, and conveyance of products to clients, forthcoming purchasers, and business accomplices around the globe Internet media fills in as an approach to achieve clients without being restricted space and time, and wound up plainly mainstream in the realm of business today. Web based publicizing is normally found on a site made by the organization that means to limited time exercises. For that in this review embraces a web based promoting model proposed by Yazer Nasdini on in making an online ad should have the component substance and Communicate. Calculate content web based promoting is the means by which to outline the substance of the advertisements may pull in the consideration of Internet clients both as far as appearance and design of the advertisement while components Communicate contains about how web based publicizing can give clear and precise data to shoppers.

OBJECTIVES OF THE STUDY

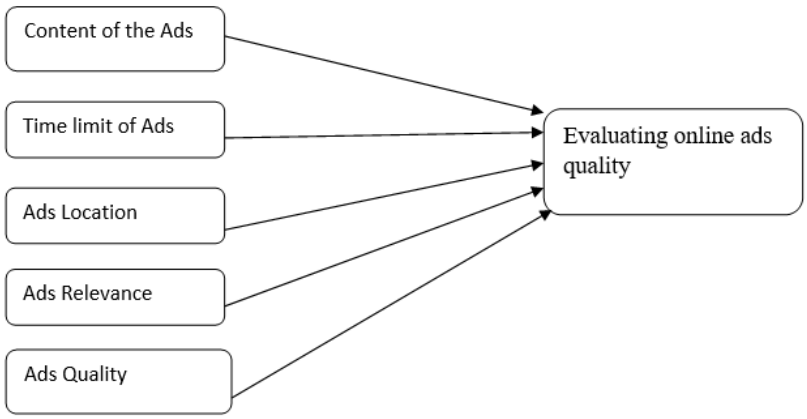
The study is designed with the following objectives:

1. To know the best media of promotion.
2. To investigate and distinguish elements of online advertisement quality
3. To discover the purposes behind leaning toward on line notice.
4. To offer significant proposals in light of the discoveries of the review.

LITERATURE REVIEW

In this review isolates into two sections which must be possessed by web based promoting are: Communicate variable and component content. Impart variable is the manner by which an online promotion highlighting a data and correspondence about the item with the goal that clients acquire data about existing items in the commercials, comprising of intelligence and availability. Intelligence in internet promoting media is the degree of two-way correspondence that alludes to the capacity of shared correspondence amongst sponsors and buyers, and the reaction to the info they receive. In its initial days publicizing was available in print media like daily papers and after that on other support such as TV. With the Internet insurgency, promoting has moved to another channel with significantly more conceivable outcomes to impact and induce clients. It is anticipated that the web based promoting industry will grow three times quicker than promoting in whatever other media. Informal communities are utilized as an advertising instrument for a wide range of purposes. Those promoting organizations utilize these locales to pick up data on their objective market, and how individuals feel about their items. They can likewise utilize these locales to pick up data on their opposition. Independent companies may likewise utilize these destinations to advance their image. The most profitable piece of promoting utilizing Social Networks is that it permits individuals to showcase their administrations to a vast market at no cost. Face book alone has 750 million clients and every client burns through 15 hours 33 minutes on a normal consistently on Face book. Subsequently Social Networks can achieve a mass market for nothing out of pocket. One expansive advantage to showcasing on Social Networks is the sharing element. Clients of these systems tend to share things that are important to them, or that they trust their companions will discover fascinating. Informal communities are additionally gainful to organizations who are wishing to make email records to send coupons or promotions through the mail. Organizations may post releases on sites urging individuals to agree to accept their day by day bulletins, and so forth. Advertisers are additionally ready to screen how individuals are survey their brands, what their rivals are doing, and how clients are review the opposition. The term openness is for the most part identified with how clients can get to the data and substance of web based publicizing. Entertainment is the ability of advertising to give pleasure or entertainment to consumers while inserting advertising information. (Ducoffe, 1996; Wang & Zhang, 2006; Wang and Sun, 2010; Mir, 2012; Yaakop, Helmsley & Gilbert, 2011). It deals with how advertising can influence consumer attitudes to entertainment or an attractive appearance that can make consumers interested in advertising. In formativeness an ad ability to supply information to consumers, so as to give a true picture of a product. For instance, the content for a picture of a publicizing content, download speed and discoverability (Godwin - Jones 2001; Hackett et al, 2004; Hackett and Parmanto, 2009). Figure substance is the means by which the shape, design and representation are shown by web based publicizing that pull in clients to see online advertisements, comprising of: engaging, in development, bothering, believability. Diversion is the capacity of promoting to give delight or excitement to shoppers while embeddings publicizing data. (Ducoffe, 1996; Wang and Zhang, 2006; Wang and Sun, 2010; Mir, 2012; Yaakop, Hemsley and Gilbert, 2011)

RESEARCH FRAMEWORK



HISTORY OF ONLINE ADVERTISING

In its 17-year presence, Online Advertising has turned into the quickest, and a standout amongst the best promoting mediums ever. Today, it is one of the basics of an effective business, a media stage that permits communication with clients in the most inventive and intriguing ways.

The Origin of Spam: By 1980, online advertisers had charged from_ flooding Usenet gatherings to conveying messages, a practice that proceeds up until today. The quantities of spam messages that are sent each day is an astounding 90 million. As a promoting method nonetheless, spam messages have little adequacy since the majority of the clients scarcely read any Banner commercials: The year 1994 saw the main online notice that was immediately trailed by a time of experimentation on sponsor and distributer notice arrangements and innovation. This underlying stage finished with the dispatch of one of the principal commercial advances, the double tap in 1995. In the late 1990s, billions were put resources into online promotion. Standard notices today, are not viable web based publicizing mediums. With significant planning required, they are tedious and costly to make.

METHODOLOGY

The specimen size is of 120 respondents. Information for this review was gathered utilizing a self-regulated survey that was conveyed to respondents specifically through mail and printed copy of poll and sufficiently given time respondents to fill the poll to lessen inspecting blunder. Poll is developed in built in a transmittable dialect.

QUESTIONNAIRE DESIGN

The survey is precisely intended to meet the prerequisites of the exploration. The inquiries are taken from past writing on Consumer's approach towards online attire stores with a view to approve the exploration progressively and a portion of the inquiries are self-organized to cover the differing qualities of research issues. The poll comprises of two primary parts; initial segment is predominantly centered around inquiries of statistic variables. Second some portion of the survey will cover relating to components that impact customers to shop on the web.

Part A: Is about the statistic elements. This area incorporates individual and delicate inquiries with respect to Gender, Age, Income, and Education.

Part B: Second some portion of the poll will cover the inquiries identifying with components of online advertisements quality

Part C: Third piece of the survey will cover the inquiries identified with the free factors and ward variable.

DATA COLLECTION

For this review, to accumulate the information and considering the few specimens by connecting with the respondents straight forwardly.

The information grouped into 2 sources:

- Primary Data
- Secondary Data

By distributing the questionnaires randomly and sending mails and collecting from consumers with previous experiences purchasing from online apparel sites. All survey items were measured on a five-point Likert scale, which ranged from ''strongly agree" (1) to ''strongly disagree" (5)

DATA ANALYSIS

The primary data that is collected will be statistically analyzed by using SPSS software. The primary data is collected from the 200 respondents from different age groups by distributing the questionnaires through online and direct approach to people and make them to fill the questionnaire. Whereas secondary data is collected from some other researcher's articles and it helps my research to show more effective result.

MULTIPLE REGRESSION ANALYSIS

The purpose of multiple regression analysis is to investigate the relationship between the independent variables and the dependent variable.

It clearly identifies the significant between the independent variable and the dependent variable and by using the significant value we can clearly say whether the independent variable is really show an impact on the dependent. And we can also see the anova and the coefficient regression also shows the significant impact of the dependent and independent variables.

TABLE 1: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.737[a]	.543	.527	1.24656

a. Predictors: (Constant), ADR, TOA, COA, ADL

1. Predictors constant ADR-Ad Revelance
2. Predictors constant TOA-Time limit of Ad
3. Predictors constant COA-Content of Ad
4. Predictors constant ADL-Ad Location

TABLE 2: ANOVAa

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	210.703	4	52.676	33.899	.000[b]
	Residual	177.146	114	1.554		
	Total	387.849	118			

a. **Dependent Variable**: ADQ

TABLE 3: COEFFICIENTSa

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.455	.544		.837	.404
	COA	.119	.045	.258	2.657	.009
	TOA	.091	.047	.153	1.955	.053
	ADL	.029	.064	.045	.451	.653
	ADR	.453	.074	.467	6.144	.000

a. Dependent Variable: ADQ(Ad Quality)

b. Predictors: (Constant), ADR, TOA, COA, ADL

Independent variables are ADR, TOA, COA, and ADL

We can see that all independent variables are having a significant ($p<0.05$) relationship with the dependent variable of attitude to adopt online shopping simultaneously, the other independent variables have no significant ($p>0.05$) relationship with attitude. We can see that the Beta values of all variables.

CHI-SQUARE TEST

From the cross tabs we got the chi-square test Chi-square is a versatile statistical test used to examine the significance of relationships between two (or more) nominal-level variables. In the following research project, we considered the demographic factors and its influence on the purchasing power of the customer.

TABLE 4: CROSS TABULATION FOR AGE AND TIME SPENT ON INTERNET

		Time spent on internet					Total
		Less than 1 hour	1-2 hours	3-4 hours	5 hours	Above 5 hours	
Age	0-18 years	0	2	2	0	0	4
	18-25 years	6	32	23	14	14	89
	25-35 years	2	4	3	0	0	9
	35-50 years	1	10	4	2	0	17
Total		9	48	32	16	14	119

TABLE 5: CHI-SQUARE TESTS

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	12.886[a]	12	.377
Likelihood Ratio	17.118	12	.145
Linear-by-Linear Association	4.020	1	.045
N of Valid Cases	119		
a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is.30.			

TABLE 6: CROSS TABULATION FOR LOCALITY & TIME SPENT ON INTERNET

		Time spent on internet					Total
		Less than 1 hour	1-2 hours	3-4 hours	5 hours	Above 5 hours	
Locality	Rural	3	20	6	8	2	39
	Semi-urban	2	12	14	4	2	34
	Urban	4	14	8	2	6	34
	Metropolitan city	0	2	4	2	4	12
Total		9	48	32	16	14	119

TABLE 7: CHI-SQUARE TESTS

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.967[a]	12	.051
Likelihood Ratio	21.229	12	.047
Linear-by-Linear Association	4.285	1	.038
N of Valid Cases	119		

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is.91.

TABLE 8: CROSS TABULATION FOR INCOME LEVEL & TIME SPENT ON INTERNET

Income level * Time spent on internet Cross tabulation

		Time spent on internet					Total
		Less than 1 hour	1-2 hours	3-4 hours	5 hours	Above 5 hours	
Incmlevel	< 20000	4	22	12	8	8	54
	20000-30000	1	16	14	4	2	37
	30000-40000	0	8	2	2	2	14
	> 40000	4	2	4	2	2	14
Total		9	48	32	16	14	119

TABLE 9: CHI-SQUARE TESTS

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.861[a]	12	.092
Likelihood Ratio	17.860	12	.120
Linear-by-Linear Association	.245	1	.621
N of Valid Cases	119		
a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is 1.06.			

TABLE 10: CROSS TABULATION FOR AGE AND LEVEL OF CONSCIOUSNESS

		Level of consciousness					Total
		0-5 seconds	5-10 seconds	10-15 seconds	15-20 seconds	Above 20 seconds	
Age	0-18 years	0	0	2	2	0	4
	18-25 years	20	34	12	13	10	89
	25-35 years	3	0	2	2	2	9
	35-50 years	0	0	2	7	8	17
Total		23	34	18	24	20	119

TABLE 11: CHI-SQUARE TESTS

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	39.289[a]	12	.000
Likelihood Ratio	46.771	12	.000
Linear-by-Linear Association	18.409	1	.000
N of Valid Cases	119		

a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is.61.

This test shows you that there is significant difference between the age & Level of (chi square = 39.289)

TABLE 12: OCCUPATION * LEVEL OF CONSCIOUSNESS CROSS TABULATION

		Level of consciousness					Total
		0-5 seconds	5-10 seconds	10-15 seconds	15-20 seconds	Above 20 seconds	
Occupation	Student	18	28	10	10	2	68
	Government	0	0	2	9	6	17
	Private	1	6	4	5	6	22
	Business	4	0	2	0	6	12
Total		23	34	18	24	20	119

TABLE 13: CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	54.243[a]	12	.000
Likelihood Ratio	66.059	12	.000
Linear-by-Linear Association	15.859	1	.000
N of Valid Cases	119		
a. 14 cells (70.0%) have expected count less than 5. The minimum expected count is 1.82.			

TABLE 14: CROSS TABULATION FOR LOCALITY AND LEVEL OF CONSCIOUSNESS

		Level of consciousness					Total
		0-5 seconds	5-10 seconds	10-15 seconds	15-20 seconds	Above 20 seconds	
Locality	Rural	8	10	2	9	10	39
	Semi-urban	3	10	6	9	6	34
	Urban	10	10	8	2	4	34
	Metropolitan city	2	4	2	4	0	12
Total		23	34	18	24	20	119

TABLE 15: CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.019[a]	12	.115
Likelihood Ratio	21.852	12	.039
Linear-by-Linear Association	3.552	1	.059
N of Valid Cases	119		
a. 5 cells (25.0%) have expected count less than 5. The minimum expected count is 1.82.			

TABLE 16: CROSS TABULATION FOR INCOME AND LEVEL OF CONSCIOUSNESS

Income level * Level of consciousness Cross tabulation

		Level of consciousness					Total
		0-5 seconds	5-10 seconds	10-15 seconds	15-20 seconds	Above 20 seconds	
Income level	< 20000	10	30	8	6	0	54
	20000-30000	7	4	4	8	14	37
	30000-40000	0	0	4	4	6	14
	> 40000	6	0	2	6	0	14
Total		23	34	18	24	20	119

TABLE 17: CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	67.841[a]	12	.000
Likelihood Ratio	82.112	12	.000
Linear-by-Linear Association	9.075	1	.003
N of Valid Cases	119		
a. 10 cells (50.0%) have expected count less than 5. The minimum expected count is 2.12.			

This test shows you that there is significant difference between the income & level of consciousness (chi square = 67.841a, p =.000).

CONCLUSION

Today, shoppers of any age and socioeconomics are spending a lot of their time on the Internet. Because of this pattern, organizations have extended their advertising efforts to achieve customers through online stages. As Facebook, Twitter and YouTube have turned out to be more prevalent, organizations are paying to publicize on these famous person to person communication destinations. While most concur that a business ought to have an online networking nearness, the adequacy of these publicizing strategies is bantered about. The fact of the matter is on what premise they are pulled in to watch online promotions that implies the substance of the advertisement and time breaking point of the promotions. By taking the clients conclusion on various age bunches they gave diverse feelings on the online promotion quality. What's more, the other imperative thing is position of promotion or area of the advertisement. Clients feel occupied because of the shameful situating of advertisements.

Twitter and YouTube have been recognized as the most well known online networking destinations of today. A huge number of Americans get to these locales day by day. It is accepted that if a business' web based promoting technique is figured accurately, advertisers can viably focus on this substantial portion of the populace. So as to build up a successful showcasing procedure purchaser's sentiments and longings should be considered and followed up on. By and large, the respondents were exceptionally open about their utilization, observations, and suppositions of internet promoting. While disparate conclusions and reactions were uncovered, there were a few examples that developed that may clarify different consequences for the issues encompassing web based publicizing and its viability. Respondents felt that promoting was for the most part neither a decent nor a terrible thing, yet were all the more eager and energetic when they communicated their disappointments. They appeared to give positive proclamations later as an approach to adjust their dissatisfactions. The majority of the online advertisements doesn't give data's and a large portion of the clients feel the they don't consider anything in online promotions while they are perusing the internet. 90% of the clients feel online promotions distractive and chafing. They consider the advertisements just when they have any necessities about the particular item. A portion of the clients feel the data and different variables considered in online are not solid. The members were part with respect to regardless of whether they have ever tapped on an online promotion. At the point when members clicked or checked on online advertisements, they specify that their encounters have been both positive and negative, however have by and large been more positive. Despite the fact that tapping on online advertisements in some cases blended up terms, for example, superfluous, or diverting, respondents say the outcomes were more positive when they could discover more data on pertinent items decently fast.

FINDINGS

1. Nearly both male and female are both actively participated in my survey has a 75% male and 25% female respondents answered their opinions on the determinants of online ads quality.
2. Most of my research respondents are 18-25 years and they gave valuable opinions it was known from my research survey.
3. Most of the people who responded to my survey are 57.14% students. Remained 14.29% government employees, 18.49% private employees and 10.8% business people.
4. And from my survey it was clearly know that about 40.34% of people daily spent 1-2 hours on internet.
5. In my research 32.77% of rural 28.57% of semi-urban, 28.57% of urban people, 10.08% of metropolitan people are responded.
6. From this survey we known that majority of people 57.98% of respondents frequently experienced online ads while they are browsing internet. 23% of respondents very frequently, 13.45% of respondents occasionally experienced online ads while browsing internet.
7. We know that 19.33% of respondents said that their level of consciousness on online ads is 0-5 seconds, 28.57% have 5-10 seconds, 15.13% have 10-15 seconds, 20.17% have 15-20 seconds, finally 16.81% have their level of consciousness on online ads is above 20 seconds.
8. The five determinants that will impact the 'online ads quality' are content of ads, Time limit of ads, ads location, ads relevance and ads quality based on above related questions and these determinants will show effectives of online ads.
9. And finally we find that online users having different opinions on online ads based on our research they said that the above determinants may or may not impact the online ads quality.

SUGGESTIONS

1. According to my study online ads will create impact on user based upon the relevance and type of ads.
2. Most of the people feel that online ads are irritating they will distract the user from his work.
3. When we are studying about online ads we should know how far online ads are informative and distractive to the user.
4. Based on the determinants we can able to know the required information about the online ads.
5. Here in this study it was known that many people are experienced online ads when they are browsing internet. They said that online ads should be short and simple it should convey more information in less time.

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NEW DIMENSIONS IN TRAINING AND DEVELOPMENT OF PUBLIC SECTOR ENTERPRISES OF INDIA

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ABSTRACT

Organizational Training and development is undergoing a transformation in wake of technological advancement, mainly the computer/internet. The present study is an attempt to explore the changes in the methods of training and development in public sector enterprises and identifies the trends governing these practices. It then discusses the current technological impact on Training and Development in Indian Scenario. The process of training and development in India has hinged effectively on the development of public sector. The Indian public sector is continuously going through a process of transformation since nineties, due to the introduction of Liberalization, Privatization and Globalization (LPG). The first objective of present paper is to study existing status of training and development programmes in public sector enterprises for their employees. The second objective is to examine the effectiveness of training and development programmes for employees in fulfillment of their duties. The present paper explained some suggestions to enhance training and development strategies, and to cope up with the existing challenges in the wake of severe competition in the training and development. The findings of the study suggest that training and development is inevitable and unavoidable in any sector.

KEYWORDS

training, human resource development, digital, public sector.

INTRODUCTION

Training and development is a vital part of the human resource development. It is assuming ever important role in wake of the advancement of technology which has resulted in ever increasing competition, rise in customer's expectation of quality and service and a subsequent need to lower costs. It is also become more important globally in order to prepare workers for new jobs. In the current write up, we will focus more on the emerging need of training and development, its implications upon individuals and the employers. Technology is responsible for increased need of training inputs to employees, but it is also important to understand that there are other factors too that contribute to the latter. Training is also necessary for the individual development and progress of the employee, which motivates him to work for a certain organisation apart from just money. We also require training update employees of the market trends, the change in the employment policies and other things.

TRAINING AND DEVELOPMENT

The aim of any training programme is to provide instruction and experience to new employees to help them reach the required level of performance in their jobs quickly and economically. For the existing staff, training will help develop capabilities to improve their performance in their present jobs, to learn new technologies or procedures, and to prepare them to take on increased and higher responsibilities in the future. Employee Development Programs are designed to meet specific objectives, which contribute to both employee and organizational effectiveness. There are several steps in the process of management development. These includes reviewing organizational objectives, evaluating the organization's current management resources, determining individual needs, designing and implementing development programs and evaluating the effectiveness of these programs and measuring the impact of training on participant's quality of work life.

DEFINITIONS OF TRAINING AND DEVELOPMENT

According to the Michel Armstrong, Training is systematic development of the knowledge, skills and attitudes required by an individual to perform adequately a given task or job.
According to the Edwin B. Flippo, Training is the act of increasing knowledge and skills of an employee for doing a particular job.
Dale S. Beach defined, Training is usually considered as the organized procedure by which people gain knowledge and increase skill for a definite purpose.

DIFFERENCES BETWEEN TRAINING AND DEVELOPMENT EMPLOYEE

Training is different from management development or executive development. While the former refers to training given to employees in the operational, technical and allied areas, the latter refers to developing an employee in the areas of principles, and techniques of management, administration, organization and allied ones.

LITERATURE REVIEW

Taylor (1961) conceptualized training as a means to bring about a continuous improvement in the quality of work performed, it would equip them with necessary knowledge, skill, abilities, and, attitude to perform their jobs. Organizations in both the private and public sectors, regardless of types or nature of organization, agree that training and development is essential to the growth and development of the business (Noe, 2002). Many organisations adopt a more strategic & future oriented approach to training and development to build employee capability within the business. If employees' don't learn, both the individual the organisation fall behind. A US study of 500 publicly traded firms found that firms that had invested the most in training had a stockholder return 86 per cent higher than firms who had invested the least in training, with a score that was also 46 per cent higher than the market average. Training and Development takes many forms, but when it is strategically aligned with the overall business plan, it can have a powerful impact on productivity, performance and commitment levels among staff. Globally training & development practices are considered to be of due importance. The value of Training and Development to Irish businesses and the economy overall has been recognised. Research by Morley, Heraty and Collings (2006) showed that the investment in human capital development was the third largest contributor to Ireland's positive economic growth. In their description of human capital, they incorporated the level of education, work experience of the work force, managerial expertise and training and development and the acquisition of knowledge. Further research by Saratoga (2006) at a global level concluded that generally it is the organisations that engage in the highest levels of learning, training and development investment that experience the greatest success in talent management In Australia, Smith and Hayton have investigated the determinants of enterprise training (Smith & Hayton 1999). Over a two-year period from 1994 to 1996, a research team from Charles Sturt University and the University of Technology, Sydney, studied 42 organisations in depth and carried out a survey of 1750 studies of private sector organisations. Organizations in five industry sectors were studied, including building and construction, food processing, electronics manufacturing, retailing and finance and banking the research identified three key drivers of enterprise training. The drivers were Workplace change and new technology. Quality assurance this includes the introduction of teamwork, new management practices and new forms of work organization. The extent and pace of workplace change varied between enterprises and industries. Quality assurance was a particular form of workplace change that emerged as a consistent driver of enterprise training. However, the interpretation differed significantly across industries. New technology included new product and process technology.

OBJECTIVES OF THE STUDY

1. To study existing status of training and development programmes in public sector enterprises for their employees.
2. To examine the effectiveness of training and development programmes for employees in fulfilment of their duties.
3. To provide suggestions for improvement in training and development programmes for employees.

TRAINING AND DEVELOPMENT IN PUBLIC SECTOR ENTERPRISES: THE PRESENT SCENARIO

The Indian government and the public enterprises in India are continuously increasing their investments in training to upgrade the skills of employees. The public sector enterprises are the largest user of training and spend 3 per cent to 5 per cent of their revenues on training as compared to 0.5 per cent to 2 per cent done by other private sector companies. Training and Development has become a major part of employee retention and service enhancement programs. Besides the IT Sector, multinational companies, banks and large Indian organizations also utilise the benefits of training services. In the last few years Indian organizations have made exceptional progress in terms of their training initiatives. This is mainly due to the increase in competition and because of the entry of multinational companies in India, which has forced them to look for various alternatives to develop organizational effectiveness. Training is considered as more of a retention tool than as a cost to the organization.

The optimum utilization of human resource is the target of any company and training is a tool to increase business outcomes. In the year 2008, four organizations from India were able to get entry in the winner list of 40 best organizations (Bhatia and Kaur, 2014). These organizations were: Reliance industries Limited, Nagothane manufacturing division having strength of 2,157 employees, Infosys Technologies Limited having 79,016 employees, Wipro Limited having 60,000 employee strength and ICICI Bank Limited with employee strength of 40,880. This is an optimistic sign which clearly shows that organizations operating in India are also very serious about their learning and development function.

There are about 1400 public enterprises at the central, state and local levels organised principally in the form of government companies, statutory corporations, departmental enterprises, commissions, authorities, boards, mixed corporations and port trusts. These employ about 6 million personnel. The expenses on training and management development are about 0.5 percent of the turnover (Mishra, 2000).

There is a definite direction existing in relation to management development and training in public enterprises. The Department of Public Enterprises, Govt. of India and the nodal agencies on state level public enterprises have their respective policies incorporating guidelines on themes to be covered, types and number of programmes to be conducted, duration of the programmes and the resource persons to be deployed. The policy covers even items such as the remuneration for the resource persons and the evaluation of the training programmes.

In the management structure, at the board level, invariably the function is represented by Director(Personnel) who in turn is supported by Executive Director (Personnel) / General Manager (Personnel), Deputy General Manager (Personnel), Assistant General Manager (Personnel), Senior Manager (Personnel), Executive (Personnel), Personnel Officer, etc. In many a case, General Manager (Training) is appointed as in-charge of the function. In other words, training and management development is a high level function in public enterprises. The state level public enterprises also accord high importance to this function though in many such enterprises it is not placed at the level of General Manager due to a consideration of size.

Separate budget provisions are earmarked for this function although they are very miniscule as related to turnover and expenses incurred on wages and salaries. In terms of hardware, separate space is allocated for the functionaries dealing with management development and training, equipment provided and support structure created in terms of assistance, transport facilities etc. It may however be noted that the quality of budget support and assistance differs widely from enterprise to enterprise. Training Needs Survey is carried out once in 5-6 years on the basis of which a training calendar is formulated. The operating departments and the management services department/ corporate strategy department are approached for obtaining appropriate inputs. Small changes are carried out in the training calendar depending on the feedback of the participants.

Training programmes for workers, supervisors and junior executives are organised in house. For the middle level personnel, the programmes are arranged in house with a mix of internal and external faculty. For senior and top level personnel, slots are provided for training in external institutions and abroad. Induction Training/Foundation Training is a rule rather than exception. The period of the training varies from 6 months to 2 years at this level. About 40 large central public enterprises such as Bharat Heavy Electricals Ltd., Steel Authority of India Ltd., National Thermal Power Corporation, Coal India Ltd., Electronics Corporation of India Ltd., Mishra Dhatu Nigam Ltd, Bharat Dynamics Ltd., Hindustan Aeronautics Ltd., HMT Ltd., have set up their own in house training institutes. These provide training to senior managers in general management, middle/ junior managers in functional areas of management and specialised courses to senior and top managers in 8 total quality management, quality circles, memorandum of understanding and corporate planning. These in house institutes run Junior Management Induction Programmes.

At the State level, such in-house training institutes are maintained by the state electricity boards and the state road transport corporations. The state financial corporations and the state industrial development corporations also take up the management development training activities on systematic basis, though they do not have their own in-house training institutions.

The public sector banks form the lifeline of the financial system in the country. There are in all about 90 banks excluding the cooperative banks. Most of these banks have their in-house training departments. The large banks such as the State Bank of India, Punjab National Bank, Central Bank of India, Bank of Baroda, Andhra Bank have their own in-house training institutes. In a study conducted by Mishra and Ravishankar (1990) the Human Resource Development in State Bank of India, the largest commercial bank and one of the 500 Fortune Companies with a sample of officers numbering 850 in senior/middle management cadres. It was noted that there was an urgent need to develop technical and managerial skills and bring about attitudinal changes in the work behaviour of the executives. The linkage of the training with the operations process of the bank was not complete. The deputation of trainees to a programme was not always on grounds of actual needs. Much subjectivity operated in the field. The managers at operations level felt that deputing personnel for training interface with the operations work. Moreover, the skills imparted and the change brought in the behaviour of the trainees fade out quickly and regression sets in once they face the operational realities and mounting sceptics from their colleagues. With the integration of information technology and banking operations the in-house training institutes of Banks have to now prepare a new menu. In fact, the experience emanating even from a country like the USA reveals that the bank personnel would like to redefine their operations and needs in the perspective of information technology. They feel that the run of the mill training programmes are a mere waste of their time. What they need today is an intensive understanding of information technology which can keep them relevant for society (Mishra, 2000).

EMERGING TRENDS

As technology advanced, so did the nature of training. Companies today rely more so on computer-generated training such as simulation or virtual training techniques. These types of training become critical especially as companies search ways to become more cost efficient and training more effective. Today, a number of computer-based training approaches have arisen and continue to develop. Suhasini & Suganthalakshmi (2015) briefed about the following emerging trends in India.

Computer Assisted Training: Computers are used in support of more traditional training approaches. This support was initially the inclusion of computer requirements and mini-programs in multimedia learning packages, extending the audio and video elements described above to the much more flexible computer. Other CATs were used in training programs at work, again being inserted into the more traditional approaches, taking the place of audio and video inserts. These inserts permitted instant practice of skills particularly those related to the use of the computer, for example the learning subject might be the use of spreadsheets on the computer.

Computer Based Training: Dating all the way back to World War II, computer-based training (CBT) also known as e-learning, found itself most useful in private industries or the government. E-learning refers to the delivery of training or education through electronic media. Today e-learning is converted into numerous training programs, but not all training programs should be incorporate a e-learning format simply due to companies' specific training needs. CBT extends significantly the involvement of the computer in training, particularly self-learning and self-development approaches and all indications are that this could be a significant

learning force in the future. The programs nowadays customarily consist of a computer package, usually on CD-ROM or interactive CD-ROM, perhaps supported by text and/or video material, questionnaires, projects and activities

Web and Internet Based Training: Probably the biggest revolution in the world of training and development in recent years has been the increased and increasing use of the internet to transport training programs to learners, whether they are individuals or groups within an organization, although not necessarily a group that has come together for training. This approach started quite simply with real time, e mail contact between a self learning, open learning program learner and the central expert or supporting trainer/manager. The revolutionary techniques (and these are seen by many people as the way in which electronic methods of learning will proceed) involve the internet equivalent of traditional methods is that the presence of any social contract is unnecessary contact is the interaction of the learner seated in front of the computer visual display unit with a program that originates with a web site any location in the world.

Programmed Instruction: In the 1950s, B.F. Skinner introduced programmed instruction (PI) with his patented teaching machine. Initially, his teaching machine would recognize correct answers and progress to the next. If an answer was wrong, the machine would explain the correct answer. Typically, information to be learned with PI is taught in pieces. Trainees are tested after each piece of material is presented. PI has developed more so as technology advances. For instance, PI can be seen in the latest training technologies such as online courses.

Intelligent Computer Assisted Instruction: After commercial computers were released in the 1950s, IBM launched the Course writer 1 in the 1960s. This is considered to be the first paradigm of intelligent computer-assisted instruction (ICAI). Based on the trainees' interactive responses, this type of CBT is personalized in that is tailors assistance to the trainees' needs with characteristics similar to that of a human tutor. ICAI helped cultivate intelligent tutoring systems (ITS). These systems are a spinoff of the ICAI and demonstrate a more advanced approach. It operates in a way that learns the best methods to facilitate training based on the trainee's response, Employees have found this method advantageous in that ITS effectively corrects wrong answers or perceptions.

THRUST AREAS FOR TRAINING IN PUBLIC SECTOR ENTERPRISES

The following are the thrust areas for imparting training to the employees/officers.

- Information Technology: The training programmes should contain significant inputs on IT application/e-governance for all categories of employees.
- Service Delivery: The emphasis in such courses should be on the quality service delivery within prescribed time period.
- Project Monitoring and Management: Frequent training in Project Monitoring and Management to avoid costs and time over runs in implementing the projects. It will be useful for Class-I Officers.
- Office Procedures and Rules, for all officers and officials.
- Ethics and Values: Training programme emphasis to be on ethics and value based administration and all emergent issues in the society. This type of training is required for all level of officers & officials.

MOST RECENT MEANS OF TRAINING

Intranet: Intranets are also a popular use of computer-generated training that has developed over time. Intranets are utilized via a company portal and are used to share information within an organization. Intranets have found to increase workforce productivity, reduce the time it takes to complete a task or operation, improve communication, make more cost-effective, allows for quick updates/announcements and enable teamwork through collaboration. The intranet's success lies in its design. An intranet is structured with one audience in mind- company employees. While the intranet provides a high level of benefits, it can also be improperly managed due to the overflow of data instead of being utilized in a way that creates company value.

Webinar: Webinars also find themselves in the midst of evolving training trends. Webinars are a form of web conferencing via slideshows, videos, etc. Webinars deem to be useful in that they are interactive in such ways that members partaking in online webinars can interact with on-screen calendars and other facilitation tools as a slide show or some type of presentation is being conducted. Webinars are quite popular among organizations; however, there is a downside: one-way communication. This aspect of the webinar can enhance cultural/past behaviours that desire to replace present day training technology such as webinars. These behaviours are derived from individuals who prefer a traditional way of operating within the business realm. "Regardless of the advantages or disadvantages, webinars which were historically used for demos or meetings, are now trending as means of employee training along with DVDs, Internet usage such as YouTube, and even cell phones, more widely known as Smartphone.

Smartphone: To this day we associate Smartphone with operating systems such as Android, Blackberry, Apple's is and more. Smart phones are convenient, plain and simple, but can also pose as a distraction in the workplace, typically requiring the need for a high level of monitoring. For instance, being able to distinguish employees checking e-mails versus those employees updating their latest twitter status can sometimes seem to be a difficult task. Distributing company issued phones for business purpose only can help reduce personal use. At the same time, this can be a costly manoeuvre. For the most part however, smart phones can prove to be valuable in the workplace. Smart phones have made huge leaps in the corporate world and remarkably have the ability to perform the functions of a computer. Consequently, an employee can quickly access or send an e-mail, participate in a conference call, take pictures, upload information to the company site, gain access to apps that prove to be beneficial to company goals. Smartphone or tablet users, such as the iPod, may download applications from an app store that are specifically designed with the end-user in mind. From a social media app like LinkedIn to a company-specific app such as Bump, used for media sharing, millions of apps are available for download at the tips of your fingers. Employee training may be exercised through smart phones through the use of video sharing, e-mails that provide links to a training sessions, and even apps like 'Mobile Employee' that make note of training and more over, provide employees with deadline reminders, appointments, travel reward programs, work times including the ability to e-mail files that can be integrated into the timesheet spreadsheets, etc. Needless to say, the possibilities appear endless.

WIKI: Wikis are another resource that can be used for training purposes. Developed in the early 2000s, wikis provide information sharing sites that run via the Internet and allow users to modify information. Some wikis are limited as to who receives access to modify a site while others such as Wikipedia welcome any user to change or add facts/details to a particular subject matter. Organizations that utilize wikis should be aware of faulty information; some users are illiterate in dealing with wikis. Certain companies may even find themselves having to implement a wiki 'how-to' training session before even conducting training via wiki. The value for companies lies in the fact that wikis can be used as a collaboration tool, setting the stage for company-specific tasks/jobs such as project management, knowledge management, and fostering information. The obvious advantage at hand is the cost effective aspect, as with most new technologies.

CONCLUSION

Management development and training will play a significant role in the socio-economic and political emancipation of India especially in the changed context of globalisation. The government, public sector and private sector are redefining their vision of management development and training. Although the management development and training function has not made significant headway so far, the country is now well set to undergo a paradigm shift in this direction. Corporate training technologies are rapidly changing. The trend is away from classroom training to web base learning on the Internet and corporate intranets. Computers are becoming faster, smarter, smaller and invisible. Instructional design for the web is changing from simple page turning of documents to highly sophisticated artificial intelligence applications using simulation and computerized tutoring. Because intelligent programming and the use of large databases allow greatly increased personalization, online learning is moving from web based courses to just in time performance support systems. At the same time networking has allowed greater collaboration in the workforce, and a better utilization of the intellectual capital within an organization. These are exciting times in the field of corporate training. The new global trends in the corporate world is to emphasize more on applying systematic approach to training and development in order to achieve higher level of organizational effectiveness. Organizations now a days try to link business strategy with training. Current and future trends show that organisations that want to retain skilled employees need to provide for ongoing development and educational opportunities. Many organizations measure the return on investment for training activities.

There is enough evidence to show that employees who were trained on a regular basis are the ones who provide a higher quality services to the customers. To develop an integrated and proactive training and development strategy there is requirement of coherent corporate culture rather than ad-hoc programs. In a service oriented industry such as banking, people are among the most important assets and a bank must efficiently manage its employees during every phase of employment in this competitive arena. It is concluded that public sector enterprises training and development programmes for their employees to increase their efficiency. Public sector enterprises provide training programmes to enhance their knowledge and skills to satisfy the customers. Growth of public sector in India is the result of skilled manpower which is the outcome of training and development.

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EFFECTS OF STRESS AND IT's IMPACT ON ACADEMIC PERFORMANCE

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ABSTRACT

The objective of the study is to examine the stress level of college students and to identify the relationship between stressors and coping strategies of the students. The Students Stress Scale (SSS) was the instrument used to assess the stress level of college students which consists of four major factors such as emotional, social, Academic and Financial stressors. Both positive and negative coping was the instrument used to validate the coping strategies of the students. The Questionnaire was administered on 356 college students both from Arts and science stream. The study revealed that academic stress is highly correlated with social and financial stress and it also found out positive coping strategies helps to combat academic stress

KEYWORDS

coping skills, college students, social support, stress, students, positive coping, negative coping.

INTRODUCTION

College students have many obstacles in order to perform and achieve their optimal academic performance. College life is the one of the most memorable experience of Adolescents life. College students face different kinds of stressors in their path of curriculum studies & in life. They experience a number of challenges in their day to day life. They are exposed to considerable amount of stress which necessitates with coping strategies. Previous researchers found that the college students perceive a high level of stress during their academic education. According to Lazarus stress is the result of an individual's perception that they do not have the resources to cope with a perceived situation from the past, present & future. Stress is a situation that occurs when an individual is confronted with a situation which is perceived as overwhelming. Many studies found that too much of stress or chronic stress can cause & harm physical & mental health of the students & increase the risk of effects in our body. Coping strategies are classified into active & avoidant coping strategies. Avoiding coping strategies either be behavior or psychological response designed to change the nature of stress ors. Active coping is considered as a better way to deal with the stress while avoiding coping I considered as a psychological factor for stressful events. Therefore, ineffective coping can lead to Anxiety, depression, stress, using of drugs, smoking, a lot of mental illness among college students.

According to Carver: Active Coping strategies include active Coping which means taking action or exerting efforts to remove the stressors, planning, thinking about how to confront the stressors & planning ones coping efforts, acceptance, accepting the fact that the stressful event has occurred and is real & positive reframing. Approaches in coping with stress are influenced by ethnic, cultural & socio- economic characteristics.

Thus elevated stress level of college students can lead to decline in Academic performance and can affect both physical and mental health of the students. Stress among students has not gained with attention in comparison to work related stress. Only a few studies have assessed the perception of stress among students & coping strategies. In recent times, many study found that students encounter all kinds of stressors such as Vague future, unattainable target and goals, problems in adapting new college environment etc. The learning abilities are often affected when they encounter challenges as social, academic, emotional, physical and family problems [Fish & Niles, 1996]

LITERATURE REVIEW

Kamarudin Rafidah, (2009) found in the research the relationship that exist between stress factors, Perceived Stress & Academic performance. Perceived stress scale (PSS) developed by Cohen, Kmarack & Mermelstein, (1983) were the instrument used for the study. The result of the study indicates many of the students experience stress but at moderate level. But significantly between the level of Perceived stress at the beginning of the semester. The study also suggested parents must in better position t give advice, motivate the students & to have moral support to reduce & to overcome stress.

Archer & Lamnin (1955) examined and identified tests, grade competition, lack of time, are the primary causes of academic stressors while intimate relationship, parents relationships and finance related ranked as the highest personal behavior.

Levin, Ilgen & Moos (2007) examines the mediating effect of Coping, personal belief & Social support which is directly or indirectly associated with stress, depression & coping strategies.

Vamadevappa (2009) examined the study revealed there is a positive and significant relationship between parental involvement and academic stress among students. The study found good parental involvement to higher Academic stress.

RESEARCH METHODOLOGY

RESEARCH INSTRUMENT

The Structured Questionnaire is used as the research instrument for the study. To validate the study students stress scale (SSS) questionnaire were used. Folkman & Lauzarus Coping response (1988) were the instrument used to measure the coping both positive and negative response of the students.

DATA SET

The source of data is collected from the primary data through Questionnaire.

SAMPLE SIZE

The populations for the study were 356 undergraduate students from top five Arts and Science colleges in Chennai city. The response rate for this study is 78%. Convenience Sampling is used for this study.

STATISTICAL TOOLS

1) Demographic Analysis
2) Descriptive Analysis
3) Correlation Analysis

MEASUREMENT SCALE

A Likert Scale is used & the respondents can select a numerical score ranging from 1 to 5 for each statement.

1) Demographic Analysis

TABLE 1

Gender (Variable)	Number	Percentage
Male	210	60%
Female	146	41%

2) Descriptive Analysis (level of stress)

TABLE 2

Stressors Domain	Mild (0-1.00)	Moderate (.01-2.00)	High (2.01-3.00)
Emotional Stress	0%	0.5%	87%
Social Stress	3%	1.6%	45%
Academic Sources	3%	87%	23%
Financial Sources	2%	35%	7%

3) **Interrelationship between Academic stress and other stressors**

stress	Social stress 'r' value	Emotional Stress 'r' value	Financial Stress 'r' value
Academic Stress	0.170	00.567	0.213

D) Correlation Analysis: Association of Academic stress with coping strategies of students.

S.NO.	COPING STRATEGIES	ACADEMIC STRESSORS 'R' VALUE
	positive coping	**0.112**
1	Mediate & pray	0.67
2	Sleep	3.56
3	Listening to music	-0.34
4	Talking to parents	-0.009
5	Yoga/ meditation	0.098
6	Hobby/interest	3.56
	Negative Coping	
1	Spending time	0.055
2	Using drugs	-0.79
3	Smoking	-0.21
4	Alcohol	0.022

FINDINGS

The main findings of this study therefore concluded that Academic stress was highly correlated with social and financial stress. Coping techniques such as proper utilization of time, involving in leisure related activities, optimistic appraisal and support from friends and family often relieves in stress of students. Different coping strategies such as finding help, solving problems, leisure, exercise, found to be beneficial (Donaldson & Prinstein et al, 2000)

RECOMMENDATION

It is highly recommended that parents should support & inspire students. They should support, motivate & develop self- confidence & self-discipline & the students need to develop balance state of mind. On the part of teachers, they should develop & inculcate interest among students. Better guidance should be provided to develop confidence among the students. Planning plays a major role in Academic work. Therefore, planning during examination & Time Management of students play a vital role to reduce stress.

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