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ASSETS TURNOVER AND PROFITABILITY OF SELECTED INDIAN AUTOMOBILE INDUSTRY**DR. N. PASUPATHI****DIRECTOR****PG & RESEARCH DEPARTMENT OF MANAGEMENT SCIENCE****PARK'S COLLEGE (AUTONOMOUS)****TIRUPUR****ABSTRACT**

The Indian Automobile Industry has been pivotal role in the society. To increase the shareholders' value efficient assets management is required. Assets utilization and corporate profitability has a direct relationship. In present paper an attempt has made to study the impact of assets utilization on profitability of Indian automobile industry. For the purpose of study seventeen Indian automobile industries has been selected. The study indicates that utilization of industry assets is the most influencing factor on profitability of Indian automobile industry.

KEYWORDS

assets turnover, automobile industry, profitability.

INTRODUCTION

There is a triangular relationship among the sales, profits and assets greatly affect the profitability of a business also. The relationship between the sales and profits is known as profit margin and the relationship between the sales and assets is known as assets turnover. Any change in assets turnover would affect the profitability of a business. Hence, a detailed analysis of assets turnover has been made for better study and tracing out factors responsible for changes in the profitability. Turnover ratios are concerned with how efficiently the assets of the firm are managed or utilized. These ratios indicated the rate at which different assets are turned over in the process of doing business. The greater the rate of turnover or conversion, the more efficient utilization assets, resulting in higher profitability. The turnover ratios reflect the relationship between level of the sales and the various assets and a proper balance between assets and sales shows better management of assets.

LITERATURE SURVEY

Over the past thirty to forty years a host of studies have been carried out, most in the United States, aimed at developing models for the prediction of farm business performance. As regards dependent variables the main focus appears to have been by university researchers working with banks to develop means of improved credit scoring or categorizing farms according to the likelihood of loan default (see Johnson and Hayes, 1973; Hardy and Weed, 1980; Novak and LaDue, 1999; and Barry and Ellinger, 1989, for example). Other studies have looked at bankruptcy (Beaver, 1968; Altman, 1968), with a few being concerned with 'financial stress' (Melichar, 1986), 'success' (kaase et al., 2003), 'health' (Griffis, 1998) and financial instability (Franks, 1996). Santarossa (2003) derived an index based on movement in long-term debt. And in some ways linked to bankruptcy as the end of the downhill journey, Escalante and Turvey (2005) and Crabtree (1984) employed a measure of percentage change in net worth and Ibendahl and Fleming (2003) used a similar, but more complex indicator. In this paper an effort has been made to empirical study of Indian automobile industry for assessing the impact of assets utilization on profitability.

OBJECTIVES OF THE STUDY

The present study is envisaged to assess the impact of assets utilization on profitability and to examine the combined effect of assets utilization on profitability.

METHODOLOGY

The present study is based on seventeen selected Indian automobile industries. The industries have been selected by using convenient sampling method. The data required for this study were collected from the annual reports of respective units for the years 2000-01 to 2014-15. For the assessing the performances of the financial data collected from the above-mentioned source have been done as per the requirements of the study. For analyzing data simple mathematical tools like ratio, percentage and various statistical tools like, mean, standard deviation, Karl Pearson co-efficient of correlation, t - test, F - test, and multivariate regression analysis has been used in the study.

VARIABLES OF THE STUDY

Profitability: The specific profit measures used in this study were average Return on Capital Employed (ROCE) over the periods of study.

Fixed Assets Turnover Ratio (FTR): The fixed assets turnover ratio measures the efficiency with which the firm is utilizing its investment in fixed assets. It also indicates the adequacy of sales in relation to the investment in fixed assets.

Inventory Turnover Ratio (ITR): Inventory turnover indicates the efficiency of the firm's inventory management. It shows rapidity of turning inventories into sales. Generally, a high turnover is indicative of good inventory management.

Debtors Turnover Ratio (DTR): Debtors turnover ratio is an indicator of quickness in realization of sundry debtors. It shows the number of day's credit enjoyed by sundry debtors or credit time allowed and capital blocked in debtors. The high turnover indicates that the debts are being collected more promptly. It is calculated by dividing the net sales by the debtors at the end of the year.

THE MODEL

The regression model used in this study is as under:

$$ROCE = b_0 + b_1FTR + b_2ITR + b_3DTR$$

Where b_0 , b_1 , b_2 , b_3 are the parameters of the ROCE line to be estimated.

FTR = Fixed Assets Turnover Ratio

ITR = Inventory Turnover Ratio

DTR = Debtors Turnover Ratio

ASSETS TURNOVER AND PROFITABILITY – CORRELATION ANALYSIS

The co-efficient of correlation between selected ratios being to assets turnover and profitability are presented in Table 1. It is evident from the table correlation co-efficient between return on capital employed and fixed assets turnover ratio is +0.34. It indicates that there is a positive association between the profitability and fixed assets turnover ratio of the Indian automobile industry. The t-value is found to be significant at 1 per cent level. Secondly, the co-efficient of correlation between return on capital employed and inventory turnover ratio is found to be +0.64. It is also indicates positive relation between variables. The t-value is also significant at 5 per cent level. Lastly, the co-efficient of correlation between return on capital employed and debtors turnover ratio is +0.73. The t-value is insignificant. Thus the study of impact of assets turnover ratios on profitability viewed positive association. The study of relationship between the profitability and assets turnover ratios on Indian automobile industry with accepted rule that larger turnover increases the profitability.

Table 2 showed the correlation analysis between profitability and assets utilization of Indian automobile industry and t-value of the ratio. It is evident from the Table 2 that the all Indian automobile industries under study, fixed assets turnover ratio was positive association with return on capital employed. But the positive

association was statistical significant in 13 industry. So, result indicates only positive association between fixed assets turnover ratio and return on capital employed. While in inventory turnover ratio out of 17 industry 15 industries are associated positively with return on capital employed. Among 15 industries 12 industries statistically significant. While 1 out of 2 negative association industry were statistically found to be significant. In debtors turnover ratio 13 industry has appositive association with return on capital employed and 6 were statistically significant. Out of 4 negatively associated industries 2 industry were found to be significant. So, this analysis indicates that all the three variables of the study were associated with return on capital employed positively and negatively, but positive association was higher among the industries under study.

IMPACT OF ASSETS TURNOVER RATIOS ON PROFITABILITY - MULTIPLE REGRESSION ANALYSIS

To study the influence of assets turnover ratios on profitability, a linear multiple regression models were used. Table 3 provides the detail information of regression co-efficient, t-value, R value, R² value and F value of the independent variable and dependent variable of the study. In present study Fixed Assets Turnover Ratio (FTR), Inventory Turnover Ratio (ITR) and Debtor Turnover Ratio (DTR) have been taken as the explanatory variables and Return On Capital Employed (ROCE) has been used as the dependent variables.

The result of regression analysis indicates the relationship between dependent variables return on capital employed, and all the independent variables taken together and impact of these variables on the profitability of the Indian automobile industries. The table 3 indicates that for one unit increase in fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio the return on capital employed is increased by 1.205 unit, 0.538 unit and 0.595 units respectively. Debtors turnover ratio regression co-efficient was found to be statistically significant at 1 per cent level significant while fixed assets turnover ratio and inventory turnover ratio were found statistically insignificant. The multiple correlations co-efficient of return on capital employed on fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio is 0.810. It reveals that the profitability of Indian automobile industry was highly influence by these variables. It is also evident from the value of R² that the independent variable fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio contributed 0.657 per cent of variations in the profitability of Indian automobile industry. F value is significant at 1 per cent level of significant.

CONCLUSION

The results of the study indicate that fixed assets turnover ratio and profitability has shown a positive relationship. So, it indicates that high fixed assets turnover higher profitability. While the result of correlation of debtors turnover shows a highly positive association between debtors turnover ratio and return on capital employed and it is also found statistically insignificant. Inventory turnover ratio indicates a moderate degree of positive relation between variables. The partial regression co-efficient shown in the multiple regression equation of return on capital employed on fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio fitted in this study reveals that fixed assets turnover ratio, inventory turnover ratio and debtors turnover ratio made positive as well as very significant contribution towards improvement of the industry profitability. Debtors turnover ratio also statistically significant. The results of analysis of multiple determinations make it clear that 65.70 per cent of total variation in the industry profitability was accounted for by the joint variation in the efficiency of fixed assets management, inventory management and receivables management. The study indicates that utilization of industry assets is the most influencing factor on profitability of Indian automobile industry.

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ANNEXURE

TABLE 1: CORRELATION ANALYSIS BETWEEN PROFITABILITY AND ASSETS UTILIZATION OF INDIAN AUTOMOBILE INDUSTRY

Units	Fixed assets turnover	Inventory turnover	Debtors turnover	Return on capital employed
Ashok Leyland Ltd	2.21	5.86	6.18	14.63
Tata Motors Ltd	2.47	9.13	16.05	19.19
Bajaj Tempo Ltd	1.82	4.59	33.29	14.87
Eicher Motors Ltd	4.53	11.83	11.19	22.08
Swaraj Mazda Ltd	10.42	6.08	7.42	30.25
Hindustan Motors Ltd	2.07	6.04	7.38	6.21
Mahindra & Mahindra Ltd	3.14	8.72	11.63	19.04
Maruti Udyog Ltd	3.39	14.05	30.39	28.32
Bajaj Auto Ltd	2.24	18.75	27.01	28.02
LML Ltd	1.92	5.31	22.95	11.39
Maharastra Scooter Ltd	9.30	22.42	18.54	13.52
TVS Motor Company Ltd	3.60	14.52	33.99	37.62
Kinetic Motors Ltd	4.46	6.88	13.52	12.77
Hero Honda Motors Ltd	5.55	21.83	54.86	58.68
Kinetic Engineering Ltd	1.31	5.74	5.35	6.59
Majestic Auto Ltd	2.39	10.13	6.84	8.92
Scooters India Ltd	3.87	3.61	24.41	7.55
Mean	3.81	10.32	19.47	19.98
S.D	2.55	6.02	13.40	13.51
(r)	0.34	0.64	0.73	
t - value	-5.18*	-3.71**	-0.21	

Source: Computed from the Annual reports of the respective units.

* Significance at 0.01 level; ** Significance at 0.05 level

TABLE 2: CORRELATION ANALYSIS BETWEEN PROFITABILITY AND ASSETS UTILIZATION OF INDIAN AUTOMOBILE INDUSTRY

Units	Correlation co-efficient between FA and ROCE	t – value of r_1	Correlation co-efficient between IT and ROCE	t – value of r_2	Correlation co-efficient between DT and ROCE	t – value of r_3
Ashok Leyland Ltd	0.770	-8.787*	0.924	-8.228**	0.928	-14.396*
Tata Motors Ltd	0.871	-5.702*	0.670	-3.879*	0.652	-0.958
Bajaj Tempo Ltd	0.796	-3.759*	0.543	-2.995*	0.561	3.134*
Eicher Motors Ltd	0.080	-5.065*	0.749	-3.887*	0.448	-3.402*
Swaraj Mazda Ltd	0.688	-3.785*	0.767	-4.377*	-0.485	-3.524*
Hindustan Motors Ltd	0.777	-1.937***	-0.350	-0.069	0.500	0.585
Mahindra & Mahindra Ltd	0.721	-9.908	0.347	-6.304*	0.886	-7.909*
Maruti Udyog Ltd	0.765	-4.982	0.134	-2.749**	0.472	0.430
Bajaj Auto Ltd	0.435	-9.479*	-0.405	-2.175**	-0.156	-0.290
LML Ltd	0.858	-2.744**	0.792	-1.815***	-0.526	2.029***
Maharastra Scooters Ltd	0.918	-2.594*	0.799	3.775*	0.594	1.946***
TVS Motor Company Ltd	0.553	-7.585*	0.248	-5.163*	-0.385	-0.422
Kinetic Motors Ltd	0.390	-2.503**	0.805	-1.862***	0.218	0.199
Hero Honda Motors Ltd	0.874	-8.636*	0.709	-7.796*	0.626	-0.617
Kinetic Engineering Ltd	0.912	-1.360	0.764	-0.238	0.710	-0.356
Majestic Auto Ltd	0.704	-3.364*	0.304	0.590	0.496	-1.106
Scooters India Ltd	0.017	-1.348	0.290	-1.485	0.706	3.194**

Source: Computed from the Annual reports of the respective units.

* Significance at 0.01 level; ** Significance at 0.05 level; *** Significance at 0.10 level

TABLE 3: MULTIPLE CORRELATION ANALYSIS AND MULTIPLE REGRESSION ANALYSIS OF INDIAN AUTOMOBILE INDUSTRY

Variables	Partial regression co-efficient	t - value	Level of Significance
Constant	-1.738	-0.339	Not Significant
Fixed Assets Turnover Ratio (FAT)	1.205	1.272	Not Significant
Inventory Turnover Ratio (ITR)	0.538	1.135	Not Significant
Debtor Turnover Ratio (DTR)	0.595	3.008	Significant *
R = 0.810			
R² = 0.657			
F = 8.282*			

Source: Computed

* Significant at 0.01 level; ** Significant at 0.05 level

WALKTHROUGH ON NEURAL NETWORK AND FUZZY LOGIC FOR CLASSIFICATION OF MEDICAL IMAGE DIAGNOSIS

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ABSTRACT

Artificial Neural Network and fuzzy logic are the branch of Artificial intelligence, have been accepted as a new technology in computer science. Neural Networks and fuzzy logic has rapidly become one of the most successful of today's technologies especially in the field of medicine. When several tests are involved, the ultimate diagnosis may be difficult to obtain, even for a medical expert. This has given rise, over the past few decades, to computerized diagnostic tools, intended to aid the Physician in making sense out of the confusion of data. This Paper carried out to generate and evaluate both fuzzy and neural network models to predict malignancy of breast tumor, using Wisconsin Breast Cancer Database (WBCD).

KEYWORDS

artificial neural network, breast cancer, fuzzy logic

I. INTRODUCTION

Breast cancer is the second most fatal disease in women worldwide. Breast cancer affects not only women but also men and animals. Only 1% of all the cases are found in men. There are two types of breast lesions- malignant and benign. The Radiologists study various features to distinguish between the malignant tumor and benign tumor. 10%-30% of the breast cancer lesions are missed because of the limitations of the human observers. Early and accurate diagnosis is essential for patient's timely recovery. Identifying the women at risk is an important strategy in reducing the number of women suffering from breast cancer. Detecting the probability of recurrence of the cancer can save a patient's life. When a number of tests are performed on a patient it becomes difficult for the medical experts to come to a correct conclusion and the screening methods produce false positive results. Thus smarter systems are required to decrease the instances of false positives and false negatives. This paper reviews the existing/popular methods which employ the soft computing techniques to the diagnosis of breast cancer.

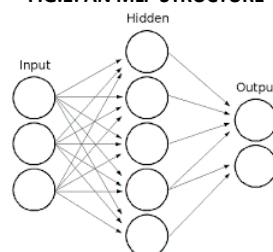
II. NEURAL NETWORK TECHNIQUES FOR DIAGNOSIS OF BREAST CANCER

Various artificial intelligence techniques have been used to improve the diagnose procedures.

A MULTILAYER PERCEPTRON

MLP is a class of feed forward neural networks which is trained in a supervised manner to become capable of outcome prediction for new data [3]. The structure of MLP is shown in fig 1. An MLP consists of a set of interconnected artificial neurons connected only in a forward manner to form layers. One input, one or more hidden and one output layer are the layers forming an MLP [10]. Artificial neuron is basic processing element of a neural network. It receives signal from other neurons, multiplies each signal by the corresponding connection strength that is weight, sums up the weighted signals and passes them through an activation function and feeds the output to other neurons [4]. Neural classification of breast cancer data consists of two steps training and testing. The classification accuracy depends on training [5]. A mapping between the input and output data could be established by assigning weights to the input numerical data during training [6]. During the training, the network is repeatedly presented with the training data and the weights and thresholds in the network are adjusted from time to time till the desired input output mapping occurs [4].

FIG.1: AN MLP STRUCTURE



B. RADIAL BASIS FUNCTION NEURAL NETWORK

RBFNN is trained to perform a mapping from an m-dimensional input space to an n-dimensional output space. An RBFNN consists of the m-dimensional input x being passed directly to a hidden layer. Suppose there are c neurons in the hidden layer. Each of the c neurons in the hidden layer applies an activation function, which is a function of the Euclidean distance between the input and an m-dimensional prototype vector. Each hidden neuron contains its own prototype vector as a parameter. The output of each hidden neuron is then weighted and passed to the output layer. The outputs of the network consist of sums of the weighted hidden layer neurons [8]. The transformation from the input space to the hidden-unit space is nonlinear where as the transformation from the hidden-unit space to the output space is linear [7]. The performance of an RBFNN network depends on the number and location (in the input space) of the centers, the shape of the RBFNN functions at the hidden neurons, and the method used for determining the network weights.

C. PROBABILISTIC NEURAL NETWORKS (PNN)

PNN is a kind of RBFNN suitable for classification problems. It has three layers. The network contains an input layer, which has as many elements as there are separable parameters needed to describe the objects to be classified. It has a pattern layer, summation layer, which has as many processing elements as there are classes to be recognized. PNN used in [10] has a multilayer structures consisting of a single RBF hidden layer of locally tuned units which are fully interconnected to an output layer of two units. In this system, real valued input vector is feature's vector, and two outputs are index of two classes. All hidden units simultaneously receive the eight-dimensional real valued input vector. The input vector to the network is passed to the hidden layer nodes via unit connection weights. The hidden layer consists of a set of radial basis functions. PNN provides a general solution to pattern classification problems by following an approach developed in statistics,

called Bayesian classifiers [11][12]. PNN combines the Bayes decision strategy with the Parzen non-parametric estimator of the probability density functions of different classes [13].

D. GENERALIZED REGRESSION NEURAL NETWORKS

GRNN is the paradigm of RBFNN, often used for function approximations [15]. GRNN consists of four layers: The first layer is responsible for reception of information, the input neurons present the data to the second layer, the output of the pattern neurons are forwarded to the third layer, summation neurons are sent to the fourth layer [16]. GRNN approximates the probability density function from the training vectors using Parzen windows estimation [17]. GRNNs do not require iterative training; It can be viewed as a normalized RBF network in which there is a hidden unit centered at every training case. These RBF units are called kernels and are usually probability density functions such as the Gaussians. The only weights that need to be learned are the widths of the RBF units h . These widths are called smoothing parameters or bandwidths and are usually chosen by cross validation [15].

E. FUZZY- NEURO SYSTEM

Fuzzy-Neuro system uses a learning procedure to find a set of fuzzy membership functions which can be expressed in the form of if-then rules[18-20]. A fuzzy inference system uses fuzzy logic, rather than Boolean logic, to reason about data [21]. Its basic structure includes four main components- a fuzzifier, an inference engine ; a defuzzifier, and a knowledge base. The decision-making process is performed by the inference engine using the rules contained in the rule base[22].

III. DESCRIPTION OF WISCONSIN BREAST CANCER DATABASE (WBCD)

The database used for detection of breast cancer by artificial neural networks is publicly available in the Internet . This database has 699 instances and 10 attributes including the class attribute. Each instance has one of two possible classes: benign or malignant. According to the class distribution 65.5% instances are Benign and 34.5% instances are Malignant. Table 1 provides the attribute information.

TABLE 1: ATTRIBUTES OF BREAST CANCER DATA

S.No	Attribute	Domain
1.	Clump thickness	1-10
2.	Uniformity of cell size	1-10
3.	Uniformity of cell shape	1-10
4.	Marginal adhesion	1-10
5.	Single epithelial cell size	1-10
6.	Bare nuclei	1-10
7.	Bland chromatin	1-10
8.	Normal nucleoli	1-10
9.	Mitosis	1-10
	Class	2 for benign, 4 for malignant

The original data can be presented in the form of analog values with values ranging from 0-10. Conversion of the given data sets into binary can be done based on certain ranges, which are defined for each attribute [31].

IV. COMPARISON TABLE

In [25] four different neural network structures, MLP, RBFNN, PNN and GRNN were applied to WBCD to show the performance of statistical neural networks on breast cancer data. According to results, RBF and PNN gives the best classification accuracy with 342 correct classifications while GRNN has the lowest accuracy with 330 correct classifications for the training set. MLP has 335 correct classifications. Accuracy comparison for popular neural network techniques with WBCD data for the diagnosis of breast cancer is shown by table 2.

TABLE 2: ACCURACY COMPARISON FOR TEST DATA CLASSIFICATION

Type of Network	Accuracy	References
Radial Basis Function Neural Network (RBFNN)	96.18%	[23]
Probabilistic Neural Network (PNN)	97.0%	[23]
Multilayer Perceptron (MLP)	95.74%	[23]
Generalized Regression Neural Network (GRNN)	98.8%	[23]
Symbiotic Adaptive Neuro-Evolution (SANE)	98.7%	[24]
Information Gain and Adaptive Neuro-Fuzzy Inference System (IGANIFS)	98.24%	[25]
Xcyc system using leave one out method	90 to 91%	[26]
Adaptive Neuro-Fuzzy Inference System (ANFIS)	59.90%	[27]
Fuzzy	96.71%	[28]
Shunting Inhibitory Artificial Neural Networks (SIANN)	100%	[29]

V. CONCLUSION

The last decade has witnessed that the neural networks based clinical support systems provide the medical experts with a second opinion thus removing the need for biopsy, excision and reduce the unnecessary expenditure. This paper compares NN techniques for breast cancer diagnosis using WBCD. The MLP, RBFNN, PNN, GRNN, GA, Fuzzy- neuro -system, SANE, IGANIFS, Xcyc system, ANFIS, SIANN may be used for the classification problem. Almost all intelligent computational learning algorithms use supervised learning.

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SERVICE QUALITY, CUSTOMER SATISFACTION AND LOYALTY: A STUDY OF AIRTEL SERVICE PROVIDER

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ABSTRACT

Study has considered service quality tool to identify the gap between customers' perception, expectation and satisfaction with Airtel service provider at Mysore city. Service quality consists of five variables like tangibility, reliability, responsiveness, assurance and empathy. 78 samples are considered for the study. The sample size covers Airtel mobile users of Mysore city. Study has identified that customers are satisfied with quality of services offered by Airtel service provider. Customers are expecting for more number of offers in tariff plans and message pack value added services and less prices per calls.

KEYWORDS

service quality, customers' expectation, customers' satisfaction, customers' retention, airtel mobile service provider.

INTRODUCTION

Business sector is facing different competitive situations. New technologies have made environment more competitive. New business organisations are entering with new business techniques, which have created stiff competition. Service sector is one among business sector. Telecom sector is a part of service sector. There are many players in telecom market. Major players are Airtel, Vodafone, Idea and BSNL. This sector offers both wire-lines, mobile and broad band services. Most of the customers have afforded mobile and broad band connections. The players are providing services to metropolitan cities, urban, semi-urban and focusing on rural areas.

"Bharati Airtel" is a leading service provider in Indian telecom sector. It entered the Indian telecom market in 1995. It has the highest market share. It offers 2G, 3G and 4G wireless services, e-commerce, fixed line services, high speed DSL broadband, IPTV, DTH, enterprise services including national and international long distance services. It has 1006.96 million subscribers as of June 2015.

Customers may perceive about the brand and its usage and other related factors through different sources. Expectations vary with different age group. Customers meet their needs and expectations with different brands or services. In high competitive situations, it is necessitated for service provider to find out the needs and desires of the customers. High quality performance would satisfy customers if low performance leads to dissatisfaction. Hence, service provider has to assess attributes and services offered. If the customer is satisfied in all the aspects with offered product or service she or he will become regular customer.

REVIEW OF LITERATURE

Anantha Raj A. Arokiasamy and Abdul Ghanikanasanbin Abdullah (2009) examined the impact of service quality dimension on customer satisfaction through the gap analysis. They have determined the perception and expected satisfaction level of each service quality dimensions and concluded that all the dimension of service quality has an influence on customer satisfaction in the form of loyalty and attitude.

Debaran Chakrabarthy (2013) studied the customer satisfaction and expectation towards a telecommunication company in west-midnapore. It is found that the dimensions influence the satisfaction level of customers care core service like good coverage, good connectivity and network quality and call rate. Further it is found that there is a significant relation between the brand name and the preference of customers. Hence, it has been recommended that telecom companies should focus on connectivity, call rates, coverage and network quality.

Olu Ojo (2010) analyzed the relationship between service quality and customer satisfaction in the telecommunication industry with a focus on mobile telecommunication network in Nigeria. The author has employed regression analysis and Pearson product moment correlation coefficient was employed in testing the hypotheses. It is found that service quality has effect on customer satisfaction and that there is a positive relationship between service quality and customer satisfaction. It is also observed that it costs to attract new customer than to retain the existing ones. The organization should welcome suggestion from customers and more programs should be designed to measure service quality and customer satisfaction. It is also clear from this research that customer service has impact on service quality perception and customer satisfaction.

Rajesh K Yadav and Nishant Dabhade (2013) pointed out the impact of service quality on customer satisfaction of mobile users by analyzing measures taken by the Airtel and customer satisfaction level and factors that affect quality of service, which will result in customer loyalty towards the operator. Chi square test is applied in this paper to check the authenticity of data given by the respondents. In which researcher has pulled the attention on service quality with special consideration given on attractive/aggressive tariff plans, innovative services, quality of service setup, customer relationship, management cell, brand strength, network quality and better customer care services and value added services etc.

Sandhya Joshi, Praveen Khurana and Shashi Khurana (2010) explored the key dimensions of service quality for mobile services in the telecom sector. It is found that the dimensions like network quality, responsiveness and other dimensions considered as important dimensions influencing customer satisfaction. The study suggested that mobile service providers have to give more importance to network quality, which has an influence on customer satisfaction.

Moon-Koo Kim Myeong- Cheol Park and Dong- Heon Jeong (2004) identified the influence of customer satisfaction and the switching barrier on customer loyalty. It is found that service quality has a significant impact on customer satisfaction, switching barriers like, call quality, value added services and customer support and also found that customer satisfaction and switching barriers have a significant influence on customer loyalty.

Siew-phaik Loke, Ayankunle Adegbite taiwo hanisah mat salim and Alan G. Downe (2011) examined the impacts of reliability, responsiveness, assurance, empathy and tangible aspects on customer satisfaction. Gap analysis was used to determine the perceived importance and satisfaction on each dimension of service quality and regression analysis was conducted to test the relationship between service quality and levels of customer satisfaction. It is found that reliability, responsiveness, assurance and empathy have positive influence on customer attitudes in terms of satisfaction and loyalty. It is also found that there is a significant gap between the perceived satisfaction and importance on all the dimensions of service quality.

Jessy John (2011) explored the factors which influence customer loyalty of BSNL. The study has taken 100 samples in Jaipur city. The result of the study shows that network quality, customer service along with value added services provided by BSNL enhanced the loyalty of the customers. It is recommended that the BSNL mobile services should focus on problems related to services and service provider should look beyond price wars to keep their customer satisfied and loyal.

Mohammad M. Almosawi (2012) focused on the importance and consequences of satisfaction in the competitive telecom industry in Bahrain. The factors related to payment and savings such as offers, rents, charges are the most significant in determining satisfaction, retention and likelihood of switching over from one mobile provider to another. Intercommunication factors such as customer service, friendly employees, and user friendly websites were found to be the least significant. Results show that a significant positive relationship between satisfaction and retention while a poor association was noticed between satisfaction /retention and loyalty.

NEED FOR THE STUDY

Service quality concept is used in different service areas like banking, transportation, insurance and hospital etc. Telecom sector is one the service sectors. There are more competitors in the market. It is difficult for the service provider to know the expectations of the customers and reasons for switching over from one service provider to another. Perceived customers will change their purchasing pattern. They will get attracted to unique featured services, special offers, and attractive advertisements. So, the present study tries to analyse expectation, satisfaction level and loyalty of Airtel customers.

SCOPE OF THE STUDY

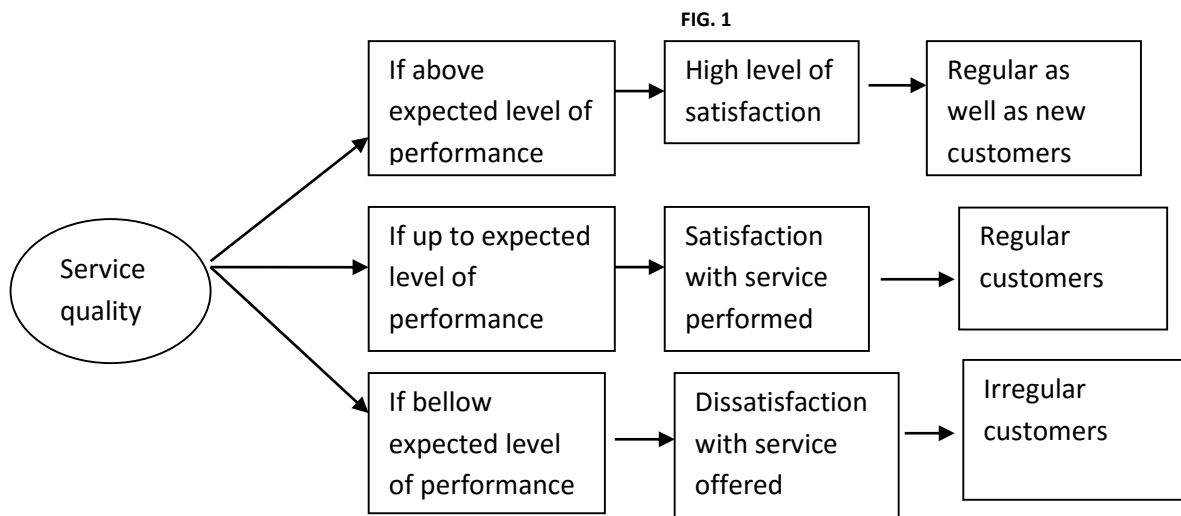
The study is limited to Mysore city. The sample size is 78. Airtel mobile users are considered for the study.

OBJECTIVES

1. To analyse the factors influencing customers satisfaction
2. To know the customers' expectation
3. To study the attributes offered by the Airtel mobile service.

HYPOTHESIS

- H₀: There is no gap between service offered and customers' expectation
- H₀₁: There is a gap between service offered and customers' expectation
- H₂: There is a relationship between expected services and customer satisfaction.
- H₀₂: There is no relationship between expected service and customer satisfaction.
- H₃: There is an association between customer retention and service attributes offered by Airtel service provider.
- H₀₃: There is no association between customer retention and service attributes offered by service provider.



METHODOLOGY

The study is empirical. Structured questionnaire was distributed and personal interviews were conducted for Airtel subscriber at Mysore city and considered as a Primary source. Secondary sources like web source, periodicals and other related sources are used for the study. Chi-square test was conducted through SPSS package to analyze collected data.

DATA ANALYSIS AND INTERPRETATION

➤ **HYPOTHESIS – 1**

- H₀: There is a gap between service offered (service quality) and customers' expectation
- H₁: There is no gap between service offered and customers' expectation

TABLE – 1: CHI-SQUARE TESTS

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.345 ^a	6	.155
N of Valid Cases	78		

Source: Field work

Results shows that 0.155>0.05 significance level. So, the study rejects alternative hypothesis and accepts null hypothesis. It is clear from the table that there is a gap between offered service and customers' expectation.

➤ **HYPOTHESIS – 2**

- H₂: Customers' satisfaction is positively related with service quality.
- H₀₂: There is no relationship between customers' satisfaction and service quality.

TABLE – 2: CHI – SQUARE TEST

Variables	Value	Df	Asymp.Sig
Tangibility	22.806 ^a	16	.119
Reliability	20.253 ^a	15	.162
Responsiveness	14.010 ^a	14	.449
Assurance	18.319 ^a	15	.246
Empathy	18.655 ^a	15	.230

Source: Field work

It can be concluded from the above results, that customers' satisfaction is positively related with service quality, each variable showing more significance level (>0.05). So the study reject null hypothesis.

➤ HYPOTHESIS – 3

H₃: There is an association between customer retention and service attributes offered by service provider.

H₀: There is no association between customers retention and service attributes offered by service provider.

TABLE – 3: CHI-SQUARE TESTS

	Value	Df	Asymp. Sig.
Call rates	8.029 ^a	4	.452
Message pack	2.069 ^a	4	.183
Tariff plan	2.990 ^a	5	.409
Billing system	5.104 ^a	5	.951
Network quality	2.879 ^a	5	.610
Validity	6.080 ^a	5	.721
Accessibility	3.675 ^a	5	.752
Value added services	9.095 ^a	5	.245

Source: Field work

Table -3 shows the attributes offered by service provider. Attributes is showing more than 0.05 level of significance. Message pack is showing least significance level where as billing system is showing high level of significance. The result shows that there is an association between service attributes offered by service provider and customer loyalty. So, the study accepts alternative hypothesis and reject null hypothesis.

FINDINGS OF THE STUDY

- Customers' expectations are not matching with service offered by Airtel service provider.
- Around 33 customers have expected good network quality service, 20 respondents expected more and different tariff plan, 19 respondents expected reduction in charges especially for call rates.
- Customers' are satisfied with quality of service offered by service provider. Each variable is showing high significant level.
- Chi – square tests indicate that there is an association between service attributes offered by service provider and customer loyalty.

CONCLUSION AND RECOMMENDATION

Respondents of Mysore city are satisfied with the actual services offered by Airtel mobile service provider. As per the results of the study the respondents are expecting more offers in call rates with low price, a good quality of network and more offers in tariff plan. Most of the customers have stressed on better offers in message packs and value added services with low charges. Respondents are satisfied with all the variables. Based on the opinions of the respondents, the study recommends Airtel service provider to give attention towards sale services, call rates, message pack with low prices and value added service with low charges. It also found that respondents are satisfied with reliability, responsiveness, assurance and empathy but less satisfied with tangibility. Customers expect that Airtel service provider has to respond for all the problems and should give individual attention.

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MOBILE BASED DECISION SUPPORTING SYSTEM FOR WEATHER INDEX BASED CROP INSURANCE SCHEME: A CASE STUDY OF KARNATAKA'S MOBILE ONE PROJECT

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ABSTRACT

The aim of this article is to perceive a need of a Mobile Based Decision Supporting System for Weather Index Based Crop Insurance Scheme in Karnataka i.e. due to advancement of technology user can use application which is rich in Graphical User Interface (GUI) specially made for illiterate people rather than SMS Based information. As we know Karnataka government has launched M-One project, A SMS based forecast of rainfall data is provided in the form of millimeter (Min, Max, and Average) in each districts and RHR (Rather Heavy Rain), MR (Moderate Rain), LR (Light Rain), and VLR (Very Light Rain) in each user hoblis. But the requirement is, what the normal rainfall of this time is? Whether this time farmer will get less or more than normal rain? Whether the rainfall of this time which he has got comes under weather index or not? A record is required for farmer to show at the time of claim settlement for the rain which he/she has got. In this way, a information system which views what is the normal rainfall of this time, how much it has got and cross check with weather index and provides answer to the requirement in the form of Decision Supporting System. Example like: Traffic signals: yellow if more or less than normal rainfall, green is for Normal Daily Rainfall and to show program is working, red is for insurance requirement.

KEYWORDS

SMS based services, weather index based crop insurance, decision supporting system, risk under uncertainty.

JEL CODES

D81, G220.

I. INTRODUCTION

Several studies have identified opportunities for using mobile phones in the agriculture sector. A report by Vodafone and Accenture, for instance, notes that mobile phone-enabled solutions for food and agriculture could assist producers to access financial services, obtain agricultural information, improve data visibility for supply chain efficiency and enhance access to markets (Vodafone Group & Accenture 2011). The greatest potential for cost savings were seen in mobile financial payments and mobile information provision. Donner (2009) distinguishes between different livelihood functions of mobile phones, including mediated agricultural extension, market information systems, virtual markets, financial services and direct livelihood support.

Aker (2011) examines the role of mobile phones in supporting access to information about agricultural technologies and extension services. She identifies several potential mechanisms in this context, including improving access to information from private sources or through agricultural extension services; improving the management of input and output supply chains; facilitating the delivery of other services; increasing the accountability of extension services; and increasing linkages with research systems. She also notes a number of challenges associated with the use of mobiles in agricultural extension, such as the need for literacy skills and technological knowledge, the limits of mobiles to display complex information, and technical difficulties in developing voice-based systems.

In general, mobile phones can reduce information search costs, e.g. for jobs, input and output prices, or potential buyers and sellers (Aker & Mbiti 2010). In many parts of the developing world, the most common way of obtaining information remains personal travel which is costly both in terms of time and money. Other channels also have their limitations, such as newspapers (which tend to be concentrated in urban areas and require literacy), internet (low access) or TV and radio (limited information range and one-way communication) (Aker 2011). Thus mobile phones have the potential to not only reduce costs, but also allow for more regular and timely access to information.

II. EXAMPLES OF M-SERVICES AND MOBILE PHONE-BASED TECHNOLOGIES USED BY FARMERS

Several m-services have already been developed that deliver information to farmers either on demand or by sending updates via SMS or audio recordings. M-services may also serve to facilitate farmer-to farmer or farmer-to-buyer relations, such as sharing of experiences on farming practices and market information related to prices, supply and demand. Advice on farming practices is one of the most widely available m-service in agriculture, often as a complement to existing extension services. Some services are delivered through SMS, such as Reuters Market Light developed by the business data provider Thomson Reuters which delivers personalised information to Indian farmers. A more sophisticated example is iCow which combines general livestock management advice with advice for individual cows (among other functions). More often, however, such services are delivered using voice-based systems because of literacy or language barriers and the limits of SMS to convey large amounts of information. Technologies include interactive voice response systems (e.g. the government-run National Farmers Information System in Kenya or IKSL – IFFCO Kisan Sanchar Limited offered by the Indian Farmers Fertiliser Cooperative Limited and Airtel in India), helplines (e.g. IKSL) or radio programmes that respond to questions sent by mobile phones (e.g. The Organic Farmer in Kenya). M-services are also used for training and education. In India, for instance, Lifelong Learning for Farmers offers learning modules as recorded audio content delivered to women livestock producers through mobile phones (World Bank 2011). The service is provided by the Commonwealth of Learning in collaboration with the Indian non-governmental organisation VIDYAL. The messages are recorded by VIDYAL and women farmers and sent to participating women every morning. Another example is Nokia Life Tools operating in India which offers English learning courses through mobile phones.

M-services are also increasingly being used as a tool to support social learning and networking. Various mobile phone-based survey applications (e.g. Frontline Forms, Episurveyor and ODK Collect) have been developed, such as Frontline Forms, Episurveyor and ODK Collect. Such services could, for instance, be used to collect data on the performance of agricultural technologies which can then be shared with other farmers. FrontlineForms, for instance, is used by the Technoserve Coffee Initiative in Tanzania to evaluate the impact of training on farmers' behaviour and yield changes (Oyenuga 2011). Data collection is also offered through the Community Knowledge Worker (CKW) programme in Uganda which gathers data from farmers by sending them questions via SMS or by designing mobile surveys through ODK Collect which are then carried out by CKW staff.

There are also examples where mobile phone-based technologies are used to facilitate interaction and learning among farmers. Sauti ya wakulima (The Voice of the Farmers) in Tanzania, for instance, is a collaborative knowledge base created by a small group of farmers who share two smartphones with GPS to publish images and voice recordings about their farming practices on the internet. Another example is CocoaLink in Ghana which uses voice calls and SMS to connect farmers to each other and to experts at the Ghana Cocoa Board (finanzen.net 2011). Several m-services also provide information that help farmers to better access and manage risk related to weather events and diseases. Weather information is often combined with other types of information that is regularly disseminated to farmers (e.g. Nokia Life Tools in India or Esoko in Ghana) or can be requested via SMS (e.g. Google SMS in Uganda). There are also some dedicated weather information services. For instance, the government-run Radio and Internet for the Communication of Hydro-Meteorological Information (RANET) project in Zambia collects weather data from farmers (sent by SMS) and satellites and disseminates information on extreme weather events and seasonal climatic information to farmers via SMS (Mumbi & Ghazi 2011).

Mobile phone-enabled technologies are also used to monitor and disseminate information about crop disease outbreak. The Digital Early Warning Network in Tanzania, for example, receives information about cassava disease outbreaks from farmers via SMS (Ndyetabula & Legg 2011). The resulting maps are then used to focus mitigation efforts in affected areas. In Uganda, Makerere University in collaboration with the National Crops Resources Research Institute and the University of British Columbia is trialing a system to monitor cassava crop disease outbreaks using camera phones with GPS. Maps showing disease outbreaks area then displayed on a website (Heike Baumuller2012).

III. PRESENT SMS BASED INFORMATION SYSTEM

EXHIBIT 1

PRESENT SMS BASED INFORMATION SYSTEM

KSNDMC RF(Rainfall)

FORECAST(mm) Hobli level for 24hrs


(Date Ex: 20/2/2015): MYSURU:

ANTARASANTE: VLR(Very Low Rainfall); BANNUR :LR(low Rainfall);

T-NARASIPURA:LR;

HULLAHALLI:LR; PERIYAPATNA:

VLR; HUNSUR:MR (Moderate Rainfall);.....etc.







IV. PROPOSED DECISION SUPPORTING SYSTEM

In Present Information System, we get SMS based forecast of Daily Rainfall in the form of Min, Max, and Average (in mm) and Rather Heavy Rain (RHR), Moderate Rain (MR), Light Rain (LR), Very Light Rain (VLR) for scale in Districts and Hoblies, This may not possible to understand for everybody especially for rural farmer because some are illiterate, some are usually uses local language, and information is used in this method are coded words Example: LR, VLR, MR.....etc. this is not giving us a precise information about it so the authors want to perceive a need of a Mobile Based Decision Supporting System for Weather Index Based Crop Insurance scheme in Karnataka i.e. due to advancement of technology user can use application which is rich in Graphical User Interface (GUI) specially made for illiterate people rather than SMS Based information to the government of Karnataka as well as Weather Index Based Crop Insurance Companies. In this way, the authors are proposing a model.

The following are the GUI, Algorithm, and Flowchart of proposed model
Graphical User Interface of Proposed Model

EXHIBIT 1

	Blinking Red Light: Insurance Needs
	Blinking Yellow Light: Check for Water levels
	Blinking Green Light: Normal Daily Rainfall and to show program is working
	*Voice/Sound

Special features of this method are

1. Simple Graphical User Interface (GUI) that can be understandable by everybody.
2. No need of Internet.

3. Cost effective/free.
4. Useful for Insured, Not insured, and Weather Index Based Crop Insurance Company.
5. Record is maintained in farmer as well as Insurance Company it brings transparency.
6. Water Re-order level management will be easier.

V. ALGORITHM

Step 1: Starting the program by inputting Username and Password for Authentication.

Step 2: Reading the Rainfall data provided by SMS Based M-One Services: Forecast of Daily Rainfall (DR) of user District and Hoblis.

Examples: BANNUR: LR (low Rainfall); HAVERI- NEG,0,2,0;

KSNDMC: (Date Ex: 20/2/2015), Rain Data, mm – Min, Max, Avg: BIDAR – NEG,0,2,0;MYSURU – NEG,0,1,0; CHIKKAMAGALURU – ISO,0,32,2.5; BELAGAVI - NEG,0,2,0;CHIKKABALLAPURA - NEG,0,2,0;HAVERI- NEG,0,2,0;KALABURAGI- NEG,0,2,0;...etc

KSNDMC RF(Rainfall) FORECAST(mm) Hobli level for 24hrs (Date Ex: 20/2/2015): MYSURU: ANTARASANTE: VLR(Very Low Rainfall); BANNUR :LR(low Rainfall); T-NARASIPURA:LR; HULLAHALLI:LR; PERIYAPATNA: VLR; HUNSUR:MR (Moderate Rainfall);.....etc.

KSNDMC RF (Rainfall) FORECAST(mm) Hobli level for 24hrs (Date Ex: 20/2/2015): MYSURU: No Rain in all Hoblis;

Scale:

Very light Rain (≥ 0.5 mm to < 2.5 mm)

Light Rain (≥ 2.5 mm to < 7.5 mm)

Moderate Rain (≥ 7.5 mm to < 35.5 mm)

Rather Heavy Rain (≥ 35.5 mm to < 64.5 mm)

Step 3: Recording of Daily Rainfall data and reading Rainfall data of the day provided by Weather Index Based Crop Insurance Company based on crop specification.

Step 4: Crosschecking Daily Rainfall with normal and abnormal range of rainfall provided by Weather Index Based Crop Insurance Company.

Example:

(a) If an average daily rainfall of a certain place is MIN is zero (mm) and MAX is 3(mm) fixed by Weather Index Based Crop Insurance Company based on crop specification.(stored in database)

(b) If that day rain is more than 3(mm) AVG than it is abnormal rainfall.

Step 4.1: IF yes (in abnormal range): Blinking Red Light will be displayed on main window of mobile

Step 4.1.1: Recording of data and asking the query whether you are insured or not

Step 4.1.2: IF yes (Insured) Send an SMS to WIB Insurance Co and Concerned authorities

Step 4.1.2.1: Adding Daily Record

Step 4.1.2.2: Check: Meet the requirements of claim settlement at the end of the period of crop.

Step 4.1.2.2: IF yes Message will be displayed to verify claims with sound

Step 4.1.2.2: IF no Step 4.1.3 Continued...

Step 4.1.3: IF no (Not Insured) Informing to buy an insurance Scheme and Betterment of irrigation needs

Step 4.1.4: Precaution Messages will be displayed on mobile main screen to check water level with sound

Step 4.1.5: Blinking Yellow Light will be displayed on main window of mobile.

Step 4.1.6: End of program.

Step 4.2: IF no (in normal range) Step 5 continued...

Step 5: Reading ADR from database ADR = Average Daily Rainfall (Average of last 10 years)

Step 6: Calculating: Re-order levels based on Water Levels required for the land

Fixing: Maximum re-order level =MaxADR

Fixing: Minimum re-order level =MinADR

Re-order level DR = Between MaxADR and MinADR

Step 7: Crosschecking Daily Rainfall with Re-order level Daily Rainfall

Step 8.1: IF yes (More OR Less than Re-order Levels): Blinking Yellow Light will be displayed on main window of mobile.

Step 8.1.1: Precaution Messages will be displayed on mobile main screen to check water level with sound

Step 8.1.2: End of program

Step 8.2: IF no (Within Re-order Level) Step 9 continued...

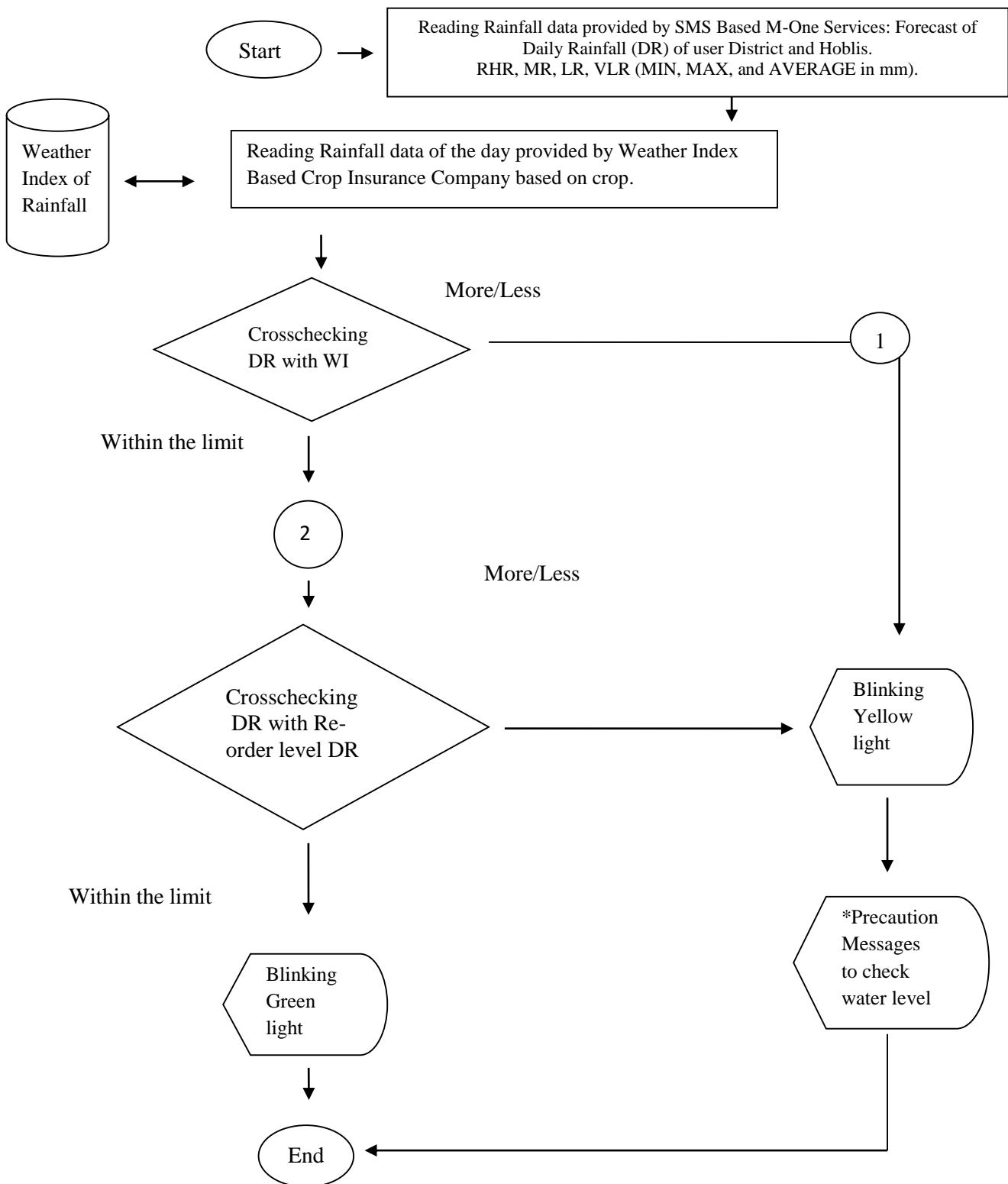
Step 9: Blinking Green Light will be displayed on main window of mobile to ensure normal water level and program is working.

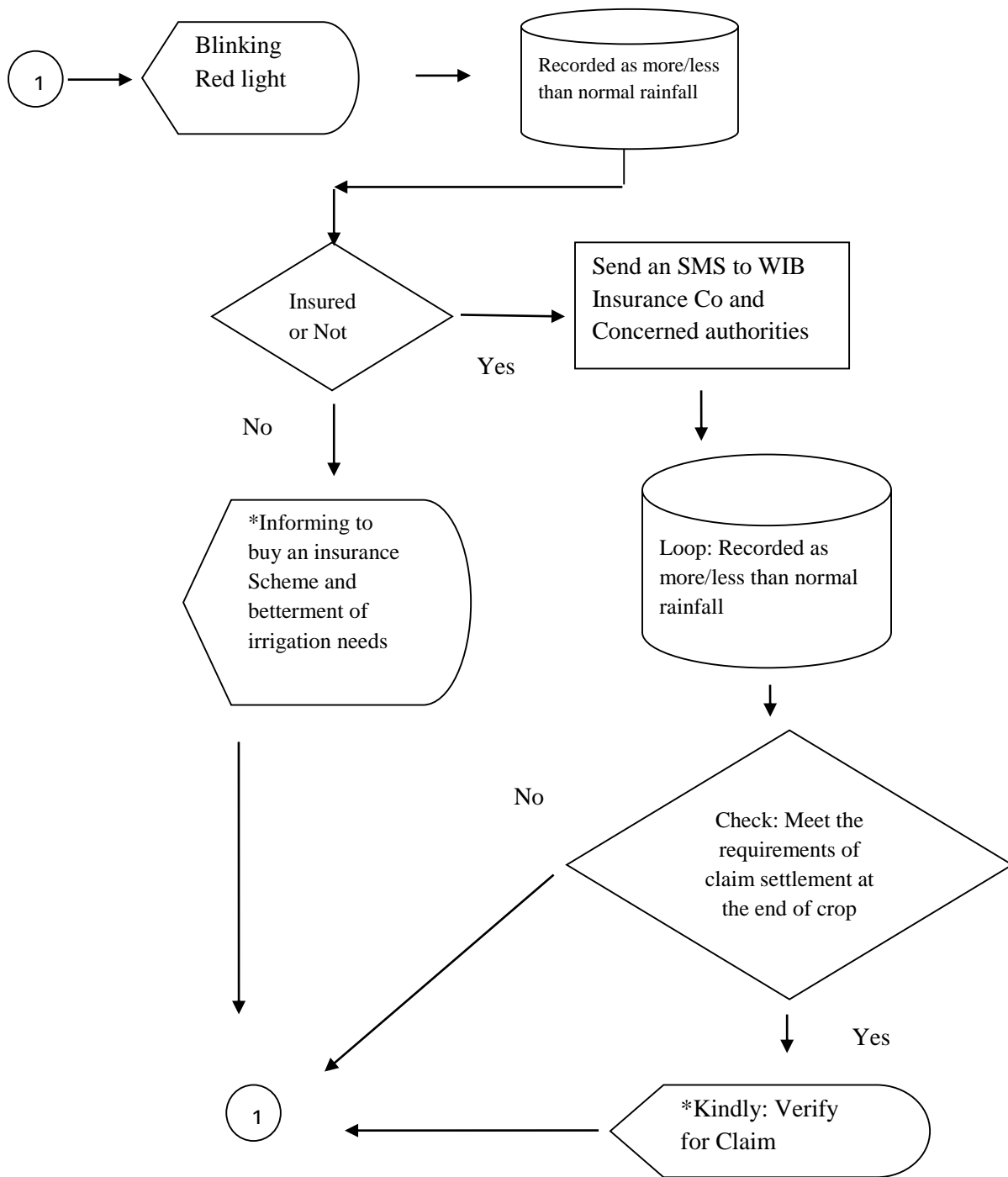
Step 10: End of program

VI. FLOWCHAR

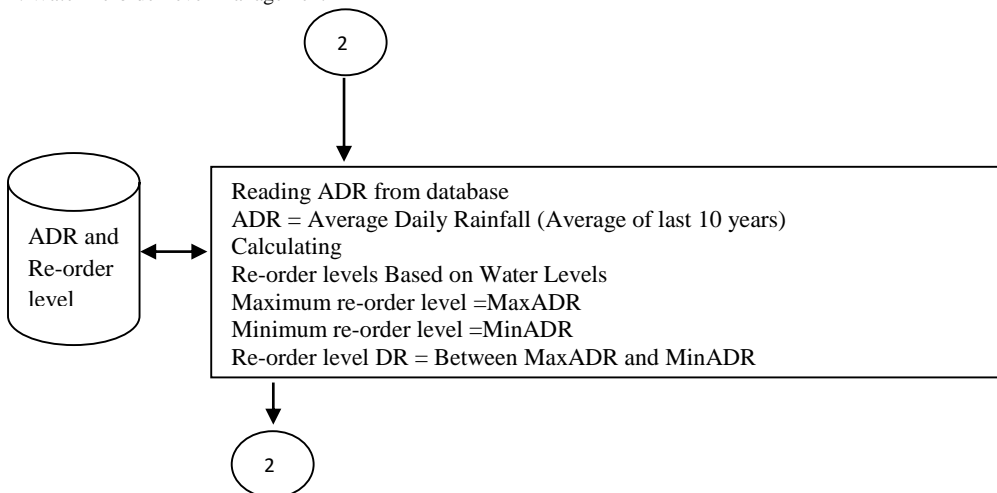
FIGURE: 1 OVERALL FLOWCHART OF PROPOSED SYSTEM

***Voice/Sound**





- 1. Recording and Claim Verification.
- 2. Water Re-order level Management



VII. CONCLUSION AND REMARKS

The most common benefit of mobile devices, as found by the survey is its penetration in rural India as the largest basic medium of basic communication. The mobile phone is the only convenient mode of communication to which farmers have access. So it would help the farmers and the rural people if used properly and would be beneficial to most of them. As far as infrastructure is concerned in India, the Mobile communications services reach to each and every remote place. We have surveyed the current market which shows the basic requirement for running the application is available easily which Indian rural people can afford. (Biswajit Saha, et al. 2012).

M-services focused mainly on the provision of farming and market information, services are becoming more comprehensive, offering more diverse and multiple functions that support farmers at different stages of agricultural production – a trend that will need to continue to increase the effectiveness of m-services in agriculture. At the same time, it will be crucial to embed these services in complementary support programmes and infrastructure developments to address other production and market limitations that cannot be resolved through mobile phones. The challenges they encounter when adopting new agricultural technologies are particularly severe and often complex, thus making it even more urgent to integrate m-services into broader support efforts. Further analysis will also need to focus on how m-services could best be used to address multiple constraints, either by providing several complementary functions or by integrating m-services with other support activities. Moreover, just as successful technology adoption is related to the farming context, suitability and effectiveness of m-services will be shaped by the context in which they are offered. These dynamics remain seriously under-researched. Further studies are essential so as to be able to adjust the services to the particular needs of the farming communities and develop business models that lead to the establishment of m-services for resource-poor farmers. Such research will need to be based on an interdisciplinary approach that takes into account the economic, social and biophysical dimensions of the users, technologies and farming contexts. (Heike Baumuller 2012).

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SCENARIO OF WOMEN ENTREPRENEURSHIP IN KASHMIR

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ABSTRACT

Entrepreneur, being one of the most important inputs in the economic development of a country or of regions within the country, are not born but are transformed by motivations. Women are expected to innovate, initiate or adopt an economic activity. Present study of women entrepreneurs was undertaken in order to know the status of women entrepreneurs in the state of J&K, the reasons for their working, and the problems faced by women entrepreneurs. The information for the study was collected both from the primary as well as secondary sources. For the purpose of primary data, eighty entrepreneurial units established by women entrepreneurs were purposively selected, and a well-designed questionnaire as well as discussion with the related women was used to collect data. The secondary sources used to collect data included various journals, books, annual reports, magazines etc.

KEYWORDS

women entrepreneur.

INTRODUCTION

Entrepreneurship is the purposeful activity of an individual or a group of associated individuals, undertaken to initiate, maintain or organize a profit oriented business unit from the production or distribution of economic goods and services (Cole, 1954). The entrepreneur is a visionary and an integrated person with outstanding leadership qualities. He has desire to excel and gives top priority to research and development. He/She always works for the well-being of society. More importantly, entrepreneurship activities encompass all fields (sectors and factors) a spirit of enterprise for the welfare of mankind (Desai, 1997). After making so much advancement in entrepreneurship by men, women also did not lag behind and entered into the field of entrepreneurship. The risks, challenges and opportunities provided to the women in this digital era are growing rapidly that the job seekers are turning into job creators. They are flourishing as designers, interior decorators, exporters, publishers, garment manufacturers and still exploring new avenues of economic participation (Verheul et. al. 2006; Jahanshahi et. al, 2010).

In Kashmir, the emergence of women entrepreneurship is comparatively of recent origin after 70's when self-employment scheme was started by Government. It was thought to be one of the ways of facing un-employment problem. Due to economic restructuring and social acceptance more and more women have started establishing enterprises. Being women for whom the social barriers are now breaking and acceptance coming in, one can say that women entrepreneurship is in its infancy and transitory period. There has been a worldwide favour to improve women well-being through eradication of ignorance. Their participation and contribution in economic betterment of a country cannot be ignored. With economic empowerment, they entered the field of business and entrepreneurship. They are making significant influence in all segments of economy, in most of the cities of India including Kashmir. Their chosen areas include education, beauty-parlors, retail trade, laundries, restaurants, manufacturing etc.

WOMEN ENTREPRENEURSHIP IN KASHMIR

Geographically the Kashmir exhibits the same trades of socio-economic environment as are prevalent in the rest of the country. The Kashmir valley is exceptionally poor in so far as the overall entrepreneurship development is concerned. The state over the years could not develop a strong viable industrial base. But there are some "pull" and "push" factors which are responsible for the emergence of women entrepreneurs in the Kashmir valley. In the first category, a woman started her own enterprise with her desire to do something new. This is mainly because over the years the educated women have become ambitious, acquired experience and gained self-confidence. The second category opted for business to get over financial strains and pressure due to family circumstances, and majority of women entrepreneurs in the valley fall in this category.

✓ **Status of Women in Kashmir - Pre-Independence**

In the traditional Kashmiri society women generally remained confined to or round the family. Their world of activities was confined within the borders of their particular household. While not considered equal, inside as well as outside their families, they were usually subjugated, abused, discriminated and maltreated in social life. Actually they remained dependent on their males. The life cycle of female dependency was supported by culture and religion (Dabla, 1991). The fact that majority of women in traditional Kashmir were economically productive cannot be denied, as they worked in different world-famous handicraft sector in large numbers and also contributed to agriculture. However, they had no control on the income of the family. Like other traditional societies, Kashmiri society was also completely male dominated. In the past the practice of wife beating was considered "normal" in the family context (Dabla, 1991).

✓ **Status of Women in Kashmir- Post-Independence**

Women of minority Kashmiri pandit community proved 'carriers of change' and 'local agents of change' in the broader social dynamics. Their constant interaction with Muslim women had decisive impact on the later. They responded to cultural and other changes much earlier than many communities in India. Thus in the changing scenario women belonging to all classes, groups and communities started coming out of their homes for the attainment of formal education and even taking up careers in different governmental and non-governmental organization.

Thus in post-independence decades three developments related to women took place. These developments according to Dabla et. al. (1991) are:

1. Firstly, there emerged a mass consciousness among women (and other members of the society too) about their rights within as well as outside their homes.
2. Secondly, the Kashmiri women in general achieved a fair degree of social and cultural mobility which also helped in fast breakdown of the institutional structure of the traditional family.
3. Thirdly, most importantly, the Kashmiri women at large developed motivation and interest in coming out of their homes for various purposes like education, employment and entertainment.

✓ *Status of Women in Kashmir in Today's World*

During the last few decades, there has been a global concern to bring women into mainstream economic activities so as to ensure their equality and empowerment. The journey towards achieving this goal has thus started at different levels. To materialize the dream of empowerment of women, it is essential to emphasize on areas relating to skill up gradation, training and technology transfer, marketing and exports, production of specialized handicraft items by women, networking and collaboration of various agencies, access to information and counseling, simplification and popularization of new schemes.

OBJECTIVES

The objective of the present study has been to assess the status of women entrepreneurship in Kashmir, explore the problems they face and address the issues for proper policy implications.

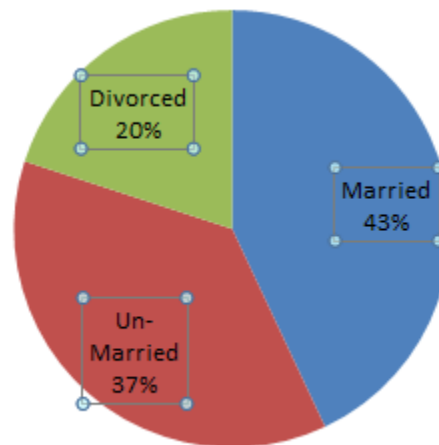
RESEARCH METHODOLOGY

The data for the study was collected from primary as well as secondary sources. The secondary sources used to collect data included various journals, books, annual reports, magazines etc. For the purpose of primary data, eighty entrepreneurial units established by women entrepreneurs were purposively selected. The units selected included beauty parlors, boutiques, tilla works, educational institutes and printing works. A well-designed questionnaire was used to collect information. Subsequent discussions were also held to fill the information gaps.

RESULT AND DISCUSSIONS

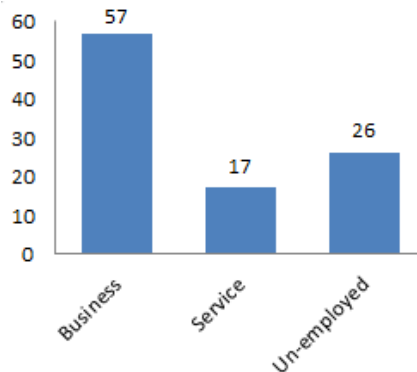
The information collected from the sample respondents depict that 37% of the entrepreneurs selected were unmarried. The young women opt to become entrepreneurs so that they could be financially independent. But women entrepreneurs also aim at supplementing the family income. The marital status of the entrepreneurs is depicted in Figure 1. Most of the entrepreneurs were married (43%) and 37% and 20% were unmarried and divorced respectively.

FIGURE 1: MARTIAL STATUS



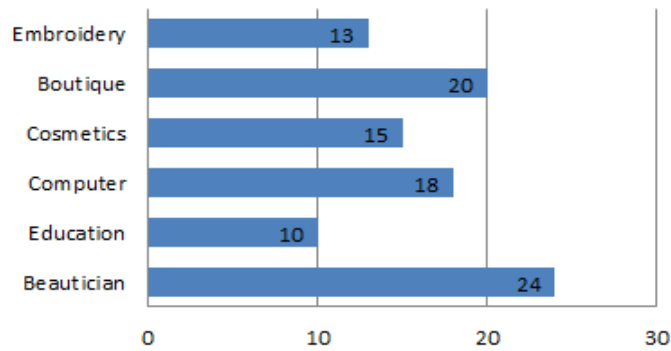
Women are a part of a family tree. She wants this tree to nourish and grow well. She herself does not want to miss any opportunity in contributing to its nourishment. Her contribution adds up to the economic strength of the family tree. Figure 2 depicts that a high percentage of the family occupation of husband/father/guardian of the unit holders is business, while as there are also a good portion of women (26%) whose husband/father/guardian are unemployed. In these cases, the contribution of women entrepreneurs is the only source of family income. 17% of women had them in service.

FIGURE 2: OCCUPATION OF HUSBAND/ GUARDIAN/ FATHER



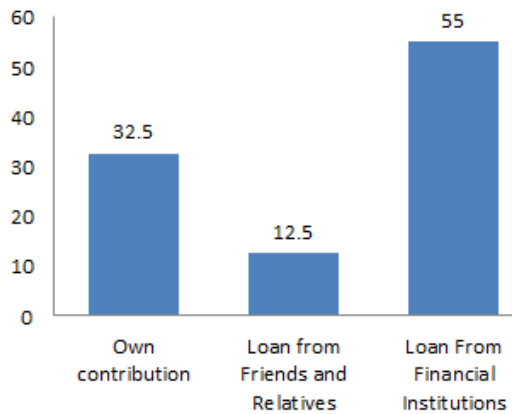
The entrepreneurs not only earn their livelihood but also generate the employment opportunities to other persons. The employees engaged in their units were both skilled and unskilled depending upon the job they have to perform. The line of business was found to be mostly beauticians (24%), followed by boutiques (20%), computer institutes (18%), cosmetics (15%), embroidery units (13%) and education (10%).

FIGURE 3 : LINE OF BUSINESS



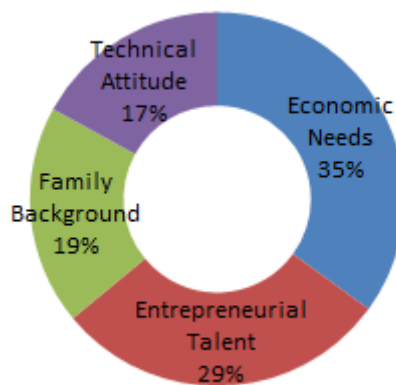
Nearly 50% of the unit holders have established their units with the help of various financial institutions (Figure 4). It further indicates that there are a good percentage of these entrepreneurs who financed their projects out of their own resources.

FIGURE 4: MEANS OF FINANCING



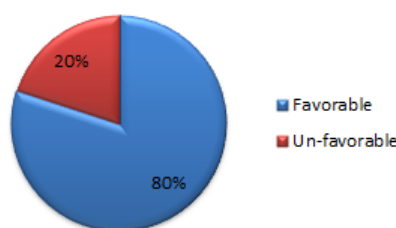
The purpose of establishing the units is recorded in Figure 5. Different women entrepreneurs have got different reasons for starting their unit. Some of them have started it in order to supplement their family income while as others want to be financially independent.

FIGURE 5: PURPOSE OF ESTABLISHMENT



Women’s economic empowerment is absolutely essential for raising their status in society. But trouble starts when the society itself creates a discouraging environment. The study observes that around 80% of respondents were lucky enough to have a favourable patting hand behind their back (Figure 6).

FIGURE 6: ATTITUDE OF FAMILY



In traditional society, women’s role was limited to the family. Since being the bearer of the children was fully occupied with her role as a mother and homemaker. However, in due course of time, factors like urbanization, industrialization and women’s education have profoundly changed these traditional conditions. This has led to change in women’s role at home. However, women still have to devote time to the family. Figure 7 shows that 60% of the women entrepreneurs claim to give some time, if not enough, to their families.

FIGURE 7: TIME DEVOTED TO FAMILY

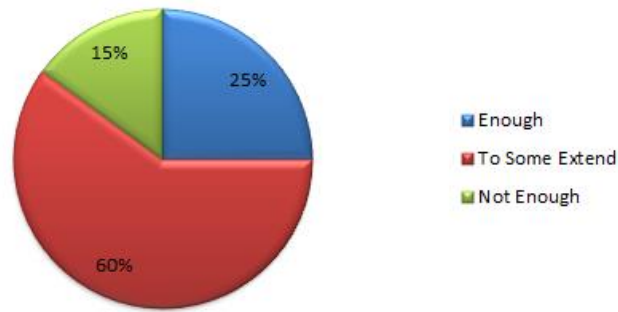


Figure 8 depicts the harassment factor felt by the women entrepreneurs. A small group (35%) of the entrepreneurs, agreed to have gone through harassment at some stage while as others do not feel any kind of harassment.

FIGURE 8 :HARASSMENT FACED BY WOMEN

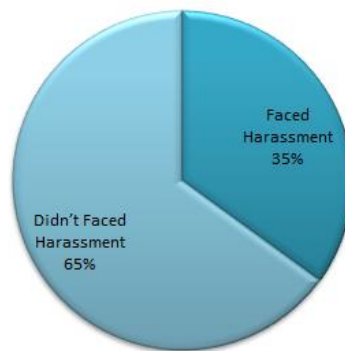
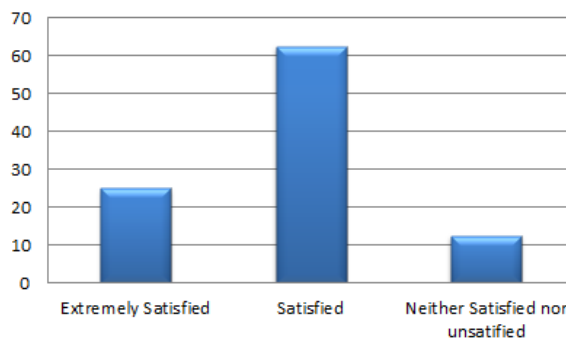


Figure 9 depicts the satisfaction level of respondents with the profit they earn from their entrepreneurial units for their livelihood. It was found that nearly 85% of them are either highly or nearly satisfied with their profits.

FIGURE 9 : SATISFACTION FROM RETURNS OF UNIT



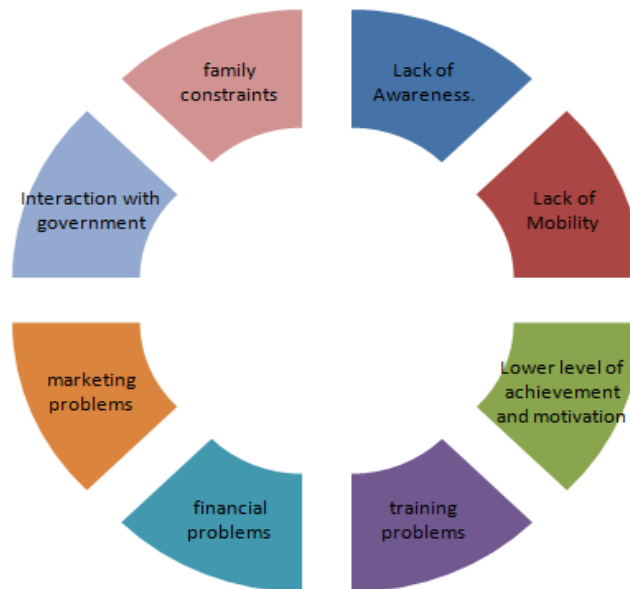
ATTITUDE TOWARDS WOMEN ENTREPRENEURSHIP IN KASHMIR

During the various interviews and discussions, some of the negative and positive attitudes faced by the women entrepreneurs in Kashmir valley have been identified.

- ✓ Negative Attitude to women entrepreneurship:
 - *The lack of spouse and family support given to women entrepreneur:* Family obligations also bar women from becoming successful entrepreneurs. Women have their prime responsibility for children, home and older dependent family members. Few women can devote all time and energies to their business.
 - *Orthodox thinking of society:* Although we live in 21st century, yet this part of world is still in the mind set of orthodox sentiments. Women entrepreneurs are not believed to be socialistic. Many women have to crush their dreams due to this orthodox thinking of the society.
 - *Lack of educational need to spur successful entrepreneurship:* Ignorance of new technologies due to illiteracy bars them from taking advantage arriving from there. They are unskilled in their use and little often enable to do research and gain the necessary training. Lack of technical training also prevents them to use technology.
 - *Competition with men:* It has been observed that males have particularly negative attitudes about women seeking to achieve entrepreneurial success. The result of which is that few women survive as entrepreneur and there is a high drop rate.

Some other problems faced by women entrepreneur in Kashmir includes lack of awareness, lack of mobility, lower level of achievement and motivation, financial problems, training problems, marketing problems, Interaction with government officials, family constraints etc.

FIGURE 10: PROBLEMS FACED BY WOMEN ENTREPRENEUR



✓ Positive Attitude to Entrepreneurship

Much is done for women to overcome the barriers and meet these challenges at the international and national level. A lot of schemes are announced, a lot of paper work is done but a contact with these women reveals that they need a lot of encouragement, help and support of Government. Starcher (2012) states, "to some, women in the developing world are considered as the best hope for lifting their families and villages out of poverty. According to Third UN Conference on least developed countries, all sectors of society – both national and international must tackle the problem faced by women entrepreneurs because of the potential benefits of their success for the entire nation.

The advantage of building on existing skills and abilities is that a woman can be more rapidly channeled into production without much training. There are many cases where traditional skills can be used in the larger economy. For example, women's involvement in food production, embroidery, tailoring can be turned to economic use through the sale of crops, prepared foods etc.

CONCLUSIONS

Women entrepreneurship is a new development in Kashmir. Women have started coming out of their four walls and are participating with men in different entrepreneurial units and showing good results. The present study observed different issues pertaining to women that hamper their fast development which include lack of support from family, orthodox thinking of society, lack of technical knowledge, competition, lack of awareness, financial and marketing problems etc. Advantages with these women are their will and commitment besides skills and abilities. All types of women whether married or not, literate or illiterate, poor or rich are entering into the business and are satisfied with their performances in terms of results. These women are also trying to balance the work and family life. The following suggestions are put forth for making women entrepreneurship a success.

- The banks can play an important role by lending money to women entrepreneurs without collateral security.
- Banks, Government agencies etc. should launch awareness and publicity campaigns about schemes available for women.
- The Government can also help women in marketing their products through its outlets at various levels.
- The family members can also be involved in the business with a view to share the burden of entrepreneurial work.
- Vocational training be imparted to women in different trades
- Training organizations should provide them support by constant monitoring and follow-up.
- Men should be educated about role of women in society and family.

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GOVERNMENT POLICY TOWARDS ENTREPRENEURSHIP DEVELOPMENT IN JAMMU AND KASHMIR

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ABSTRACT

This paper aims to develop a conceptual framework that examines the role government policy plays in the development of entrepreneurship and its impact on economic development. The study builds on existing literature on entrepreneurship, economic development and government policy as it relates to entrepreneurial practices. The outcomes of literature review propose two hypotheses. Integrating entrepreneurship practices with economic development, with government policy intervening, a framework is developed. For the reason that entrepreneurship is a part of economic development strategy employed by several countries globally to achieve macro-economic benefits. The framework provides a starting point for researchers and practitioners to further examine entrepreneurship policies and practices. For researchers, the framework clarifies the determining attributes of entrepreneurship, government policy and economic development dimensions and their proposed relationships. For practitioners, the framework can be used to gain an understanding of the role of government policy on entrepreneurship development as well as economic development. Government Policy is central to the entrepreneurship development in any economy and generally includes Policies relating to government spending, taxation and regulation etc. There are two distinct channels through which government Policy impacts the rate of entrepreneurship; the first is through its impact on the quantity and quality of inputs going into the entrepreneurial process and the second is through the impact of Policy on the institutional structure that determines the rules of the game under which the entrepreneurial process unfolds. The present study aims to assess the 'Government Policy' existing in the Jammu & Kashmir State towards the overall entrepreneurship development. Findings indicate that to the extent the Policy implementation structure is made proper and more coordination is brought in among the EPAs in implementing the state policies, there will be a remarkable entrepreneurship development in the State.

KEYWORDS

entrepreneurship, economic development, entrepreneurs, government policy, entrepreneurship development, entrepreneurship promotional agencies (epas).

INTRODUCTION

Entrepreneurship Policy covers measures undertaken to establish entrepreneur friendly legal and regulatory frameworks intended to foster the process of entrepreneurship development in any economy. The primary responsibility in developing entrepreneurial friendly policy environment and enforcing the legal and regulatory Policy framework rests with the governments. To help existing and potential entrepreneurs unleash their entrepreneurial talent Governments need to create a regulatory environment that encourages them to formally start up and grow. This can be achieved by designing and implementing the apt Policies resulting in the establishment of an entrepreneur friendly 'Policy Ecosystem' necessary for the overall entrepreneurship development across the sectors. As such 'Government Policy Ecosystem' is central to the rate of generation of entrepreneurs in any economy and generally includes Policies relating to government spending, taxation, regulation etc. Researchers point out that even the time and effort required to startup enterprises, to comply with regulatory obligations are some of the other important issues that come within the purview of this ecosystem. Governments through their laws, regulations, investments, and other Policies create a considerable impact on where entrepreneurs choose to establish new enterprises and the probability that those enterprises will succeed. The government policies should result in a framework or culture that encourages and promotes entrepreneurship throughout society and develops a capacity within the population to recognize and pursue opportunity.

A variety of different entrepreneurship development policy frameworks having direct government involvement have been adapted by various economies throughout the world. Researchers point out that government policy interventions influence the entrepreneurial activity in terms of : 'demand side of entrepreneurs' as it directly impacts the type, number and accessibility of entrepreneurial opportunities, this includes income policy and Policy to simulate technological developments, competition policy and establishment legislation; 'Supply side of entrepreneurship' as this government intervention directly impacts the pool or the supply of potential entrepreneurs, this includes immigration policy, regional development policy, fiscal treatment of families with children, including family allowances or child benefits etc. ; 'Availability of resources, knowledge and resources for potential entrepreneurs' this government intervention aims to overcome financing and knowledge gaps by increasing the availability of financial and other informational resources, this includes policies to stimulate the venture capital market, provide direct financial support, provide relevant business information (advice and counseling), offer entrepreneurship education in the schools; 'Shaping entrepreneurial values in the culture' this government intervention helps shape positive attitudes towards entrepreneurship by introducing entrepreneurship elements in the educational system and paying attention to entrepreneurship in the media, this set of policies encompasses a broader role for government, including the education system, and overlaps with culture; and the relevant policies like taxation (influencing business earnings, social security arrangements), labour market legislation regarding hiring and firing (increases the flexibility of the business and the attractiveness of starting or continuing a business), and bankruptcy policy, these policies are generic macro-economic policies that apply to everyone in the society. All this leads us to conclude that the 'Government Policy' existing in an economy has far-reaching impact on its entrepreneurship development process. Therefore, given its important role in entrepreneurship development of any economy, the analyses of entrepreneurship development should also be conducted through the lens of the 'Government Policy Ecosystem'. It is against this setting that the present study to assess the 'Government Policy' existing in the Jammu & Kashmir State for the overall entrepreneurship development in the state.

OBJECTIVES

1. To assess the existing 'Government Policy' for entrepreneurship development in the State.
2. To suggest measures for its improvement
3. To examine the relationship between entrepreneurship and economic development.
4. To examine the moderating effect of government policy between entrepreneurship and economic development.

CONCEPTUAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

It has been established that entrepreneurship is a very important component of job creation as well as economic development (Friedman, B.A.) as the success of income generation for the major group of both rural and urban inhabitants without recognized paid job greatly depends on entrepreneurship. On the basis of a review of literature,

LITERATURE REVIEW

Lundstrom and Stevenson (2005) define entrepreneurship policy as measures taken to stimulate entrepreneurship; that are aimed at the pre-start, the start-up and post-start-up phases of the entrepreneurial process; designed and delivered to address the areas of motivation, opportunity and skills; with the primary objective of encouraging more people to start their own businesses.

Kayne (1999) claims, arguing that "states – through their laws, regulations, investments, and programs – have considerable impact on where entrepreneurs choose to establish new enterprises and the probability that those enterprises will succeed" (p.2).

Van Looy, Debackere, and Andries (2003) argue that if governments can take supporting measures in the interest of a more favorable climate, a more "entrepreneurial" attitude is demanded of the knowledge centers and firms themselves.

The primary responsibility in developing entrepreneurial ecosystem and enforcing the legal and regulatory framework rests with the government. This can be achieved through apt policy initiatives and other specially designed programmes. On an average, experts across the GEM 2001 countries did not express satisfaction with government policy. Government policies in USA, UK, Finland, Ireland and Singapore were found to be the most favorable. In India, expert responses follow the general pattern, placing the country below the GEM 2001 average. Government policy is not seen as supporting new firms. The time and effort required to startup firms, to comply with regulatory obligations is a major issue (Doing Business- GEM, 2001).

GEM Report (2002), the government entrepreneurial policies and programs that exist are not effective due to the lack of coordination between the agencies delivering them. The people working for government agencies are not considered to be competent. The result is that those that need help cannot find it. Government policies and programs are inconsistent and not administered efficiently. The legal framework is not effectively enforced. Regulatory requirements are not streamlined and cause a lot of stress to entrepreneurs. The overall assessment of the experts seems to be that entrepreneurial opportunities exist in India, and the people have the entrepreneurial capacity needed to realize the potential of these opportunities. In other words, the individuals and the economy are showing entrepreneurial readiness. Apparently it is society and government which are lagging behind. Social attitudes, lack of finance, inadequate physical infrastructure, and lack of effective government support emerge as the cause of concern. Initiatives for changing the current status of these dimensions can substantially improve the entrepreneurial environment and thereby the levels of entrepreneurial activity in India (GEM Report India, 2002)

Wennekers and Thurik (2001) and De (2001) suggest a role for government in stimulating cultural or social capital and creating the appropriate institutional framework at the country level to address the supply side of entrepreneurship, i.e., focusing on the number of people who have the motivation, the financial means and the skills to launch a new business. From the findings of their international benchmarking study of entrepreneurial activity, Reynolds et al. (1999) recommended that governments should focus their effort on creating a culture that validates and promotes entrepreneurship throughout society and develops a capacity within the population to recognize and pursue opportunity. They should target policies and programs specifically at the entrepreneurial sector (rather than at aiming to improve the overall national business context), and to increase the overall education level of the population, specifically ensuring that entrepreneurship training is readily accessible to develop the skills and capabilities to start a business.

Thus in line with this, a variety of different policies entrepreneurship models have been implemented by various governments throughout the world. Some policy models involve more direct involvement and greater expenditures on part of the government (e.g. strategic interventionism in Namibia) than do others (e.g. trade facilitation in Kenya). Some focus on infrastructure (e.g. limited environmentalism adapted by western states of Austria) while others are based on credit policy (e.g., egalitarianism in Taiwan) while the top-down reform policy model (Yugoslavia & Germany) was designed for rapid, radical change; doi-moi (Vietnam) was designed to help small enterprises operate within a socialist system; subsidized interest rate policy model in south Korean; China has followed an open door policy coupled with major reforms of the completely planned economy which was formerly characteristic of the country a generation ago. The utilization of the open-door and reform policy model by China is consistent with Chinese culture. This suggests that a given model defining the government's role to promote entrepreneurship has to have a fit with the ecosystem. An entrepreneurship policy model should not be transposed into a new ecosystem, without verifying for appropriateness. This includes a variety of factors such as infrastructure, cultural values, and free trade agreements (Dana, 1992).

To help local entrepreneurs unleash their potential, national, state, and municipal governments need to create a regulatory environment that encourages firms to formally start up and grow (World Bank & IFC, 2009 India's investment Climate study). Study identifies red tape as a key constraint to improved productivity. The National Manufacturing Competitiveness Council of India also emphasizes regulatory policy reforms: "government has a major role to play in providing the right market framework and regulatory environment as these provide invaluable impetus to the competitiveness. The framework should ensure fair competition, better access to markets, trade negotiations that ensure a level playing field for domestic manufacturers, review of existing regulations and reduce the burden of paper work and inspector raj in respect of existing laws." Given that one of the central goals of public policy is the generation of growth, especially the creation of employment, Audretsch and Thurik (2001a) conclude that different, less traditional macroeconomics instruments should be employed to achieve this, that is, policies that promote entrepreneurship.

Verheul et al., (2001, pp.57-59) outlines five types of government policy intervention influencing entrepreneurial activity: 'Demand side of entrepreneurship', government intervention directly impacts the type, number and accessibility of entrepreneurial opportunities, this includes income policy and policies to stimulate technological developments, competition policy and establishment legislation; 'Supply side of entrepreneurship', government intervention directly impacts the pool or the supply of potential entrepreneurs, this includes immigration policy, regional development policy, fiscal treatment of families with children, including family allowances or child benefits; 'Availability of resources, knowledge and resources for potential entrepreneurs' government intervention aims to overcome financing and knowledge gaps by increasing the availability of financial and other informational resources, this includes policies to stimulate the venture capital market, provide direct financial support, provide relevant business information (advice and counseling), offer entrepreneurship education in the schools; 'Shaping entrepreneurial values in the culture' government intervention helps shape positive attitudes towards entrepreneurship by introducing entrepreneurship elements in the educational system and paying attention to entrepreneurship in the media, this set of policies encompasses a broader role for government, including the education system, and overlaps with culture; Relevant policies are taxation (influencing business earnings, social security arrangements), labour market legislation regarding hiring and firing (increasing the flexibility of the business and the attractiveness of starting or continuing a business), and bankruptcy policy, these policies are generic macro-economic policies that apply to everyone in the society.

There are two distinct channels through which government policy impacts the rate of entrepreneurship. The first is through its impact on the quantity and quality of inputs going into the entrepreneurial process (education, venture capital, etc.). Targeted tax relief and/or direct government subsidies or regulations generally have their primary impact through this first channel. The second is through the impact of policy on the institutional structure that determines the 'rules of the game' under which the entrepreneurial process unfolds. These broad institutions together determine the incentive and reward structure faced by economic agents within an economy (Sarita Agrawal, 2009). Given the important role of government policy ecosystem in entrepreneurship development of any economy, a number of research studies have been undertaken to access its impact on the overall entrepreneurship development.

The government policies in India regarding small business are too complex to understand and this leads to stifling of the environment for small entrepreneurs. There exists a limited and diversified understanding of factors and the decision process that leads a person towards entrepreneurship (Markman et al., 2002). Entrepreneurship has grown slowly in India because of lack of funding (Huetter, 2007). Sub National Doing Business Report, 'Doing business in India 2009' compared business regulations across 17 Indian cities. The report focused on local regulations that affect 7 stages in the life of a small or medium size domestic enterprise: starting a business, dealing with construction permits, registering property, paying taxes, trading across borders, enforcing contracts, and closing a business. It found that differences in city and state level regulations as well as the implementation of national level regulations can enhance or constrain local business activity. A number of Indian cities were previously benchmarked by the doing business in south Asia 2007 report. Main findings: in 2009, 14 out of the 17

cities covered in 2007 report introduced local reforms in at least one of the areas measured.; reforms produced tangible results, such as reducing the average time to open a business from 54 to 35 days in 10 cities.; the time to obtain a building permit was reduced by 25 days on average.; doing business was easier in Ludhiana, Hyderabad, and Bhubaneswar but difficult in Kochi and Kolkata. (Doing Business in India, 2009 & The World Bank Group, 2011). From the above review analysis it can be safely inferred that the 'Government Policy Ecosystem', in addition to other contextual factors, forms an important component of the environment required for the holistic entrepreneurship development in Micro Small and Medium Enterprises (MSEs) Sector in any economy.

CONCLUSION

The results of this study lead us to the conclusion that the 'Government Policy across the State is not positive towards the entrepreneurship development. The major reason being the poor implementation structure accompanied by the lack of coordination among the government institutions responsible for its implementation. Conversely, in this study to assess the 'Government Policy' can be explored further towards the overall entrepreneurship development in the state, by undertaking further research in this direction

SUGGESTIONS

In order to make the 'Government Policy' positive for boosting the entrepreneurship development in the State, following few suggestions are put forth:

1. Before implementing any policy initiative for the entrepreneurship development in the State, a fitting implementation structural model should be worked out on the basis of initiative need assessment. All such models should be worked out by the government while taking on board the subject matter specialists, other experts, representatives from the related Entrepreneurship Promotional Agencies (EPAs) and Micro and Small Enterprises (MSEs) Sector stakeholders.
2. For addressing the coordination issues among the different government institutions towards the smooth implementation of the entrepreneurship development policies related to Micro and Small Enterprises Sector of the State, the communication channels within and among these institutions should be made efficient and effective. To achieve this objective, it is suggested that a customized Information and Communication Technology (ICT) system should be introduced in all these institutions
3. Finance, infrastructure, education, training and other necessary support policies for MSEs Sector should be sectoral and not generic in nature, transparent with simple norms and procedures, need based and easily accessible etc. For this purpose extensive Sectoral Mapping Studies should be carried out on priority basis first before designing and introducing any such policies.

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PERFORMANCE EVALUATION OF VERTICAL CONVEYOR REAPER FOR HARVESTING PADDY CROP

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ABSTRACT

The study was conducted to reduce the cost of cultivation in paddy through mechanizing harvesting operation at Agricultural Research Station Mundagod and also at farmers' field. The vertical conveyor power reaper (KAMCO Model KR 120) was used for harvesting paddy crop. The overall performance of the vertical conveyor reaper was quite satisfactory. The average actual field capacity of power reaper was 0.27 ha/hr with the average field efficiency of 69% at an average of 3.3 kmph and the fuel consumption was 5.7 lit/ha. The cost of cultivation of paddy could be reduced by reducing 10 man days per hectare through mechanized harvesting. The overall cost of harvesting was found to be reduced in case of mechanized harvesting by self propelled vertical conveyor reaper. Hence, the mechanical harvesting would be economical compared to the traditional methods.

KEYWORDS

mechanised harvesting, field capacity, field efficiency.

INTRODUCTION

Rice is one of the most important crop and staple food of million of people. The total area under rice during kharif season in India was 37.48 million hectares with the productivity of 88.02 million tonnes in 2014 (Anonymous 2015). The production of rice has increased as a result of improved methods of farming, but the harvesting techniques employed are still primitive. Harvesting is the first and major post-harvest operation. Harvesting operation has to be done at particular period when the crop is matured and the time required for harvesting is very less. But these two conditions cannot be fulfilled due to the shortage of manpower at the time of harvesting, which leads to delay in harvesting and field grain losses and also higher wages during peak harvesting period and leads to extra cost in total cost of cultivation. Nadeem (1983) reported that depending upon the crop yield 120-250 man-hr is required for cutting, bundling and on-field stacking of one hectare of paddy field by traditional sickle, also huge amount of grain loss is reported for the lack of mechanized harvesting. Mechanized harvesting is an alternative solution to tackle this problem and also results in lesser cost of operation, when the farmers harvest the crop by using combines, farmers are losing valuable animal feed material. Reapers on the other hand are the alternative harvesting equipment, provided straw is considered as economic by-product for animal feed or industrial applications (Gyanendra Singh 2002). Keeping the above facts in view, a study was conducted to evaluate the performance of vertical conveyor reaper for harvesting paddy crop to reduce the cost of harvesting of paddy through farm mechanization.

MATERIAL AND METHODS

The field trials were conducted at Agricultural Research Station, Mundagod in Uttara Kannada district, Karnataka state during *rabi* season 2014-15 to study the economic feasibility of self propelled vertical conveyor reaper for harvesting paddy. The field demonstration were also conducted in farmers' field to study the performance at field level. A commercial self propelled vertical conveyor reaper was procured and the detailed technical specifications are given in Table 1. The reaper has adjustable cutting height of 10-30 cm from ground level. The crop was left aside after cutting at the right side of the machine. Speed of operation, width of cutting, total time required to cover the area and fuel consumption were recorded using the above observation the following parameters were studied to study the performance of the self propelled vertical conveyor reaper.

1. Theoretical field capacity was calculated based on the speed of operation and width of the cutting of the machine.
2. Actual field capacity was calculated based on area covered and actual time taken for covering the area including the time lost in the turning.
3. The field efficiency was obtained by dividing actual field capacity by the theoretical field capacity.
4. Labour saving by using the machine compared to manual harvesting was also studied.

RESULT AND DISCUSSION

Paddy crop was harvested using self propelled vertical conveyor power reaper. Based on the field demonstrations conducted during *rabi* 2014, it was observed that the actual width of cutting by reaper was 1.20 m, and the average actual field capacity of the self propelled vertical conveyor reaper was 0.27 ha/hr with field efficiency of 69 % at an average operating speed of 3.3 km/hr. It took 3.62 hour to harvest 1 hectare area and the average fuel consumption was 5.7 lit/ha (Table 2). The working of self propelled vertical conveyor reaper was found to be satisfactory.

The labour requirement in mechanical harvesting was found to be 9 man day per hectare for manual collection and bundling of harvested crop as compared to 19 man day of labour per hectare in manual harvesting, connecting and bundling of the crop. Thus, it saved 10 man days of labour per hectare similar results reported by Manjunath *et al.*, (2009).

From the above evaluation, it can be concluded that the vertical conveyor power reaper could be used successfully with labour saving of about 10 man day per hectare and eliminating the drudgery on the part of the labour. The area of 2.16 ha can be harvested per day if the field capacity is kept at 0.27ha/hr. The number of hectare of usage per year taking in to consideration of two harvesting season in a year and 30 days of harvesting period per season and 8 working hours per

day, the maximum area on which the self propelled vertical conveyor reaper can be operated in year is 129.6 ha, considering the actual field capacity as 0.27 ha/hr. Thus, mechanization in paddy harvesting is feasible solution for reducing the cost of harvesting of paddy crop without any yield reduction.

TABLE 1: SPECIFICATION OF SELF PROPELLED VERTICAL CONVEYOR REAPER

SI No	Parameters	Specifications
1	Manufacture	Kerala Agro Machinery Corporation Ltd. (A Govt. of Kerala undertaking), Athani-683 585 Dist. Ernakulam.
2	Model	KR-120
3	Dimensions, L x W x H, cm	239 x 147 x 90
4	Weight, Kg	116
5	Power unit	3.5 HP single cylinder 4 stroke, air cooled petrol start, kerosene run engine
6	Working capacity, ha/h	0.25 to 0.30
7	Crop release	Right side of the machine (viewed from rear)
8	Travel speed, km/h	
	Forward	3.5
	Backward	3.0
9	Applicability	Dry and wet land
10	Cutting device	Reciprocating knife bar
11	Cutting height, cm	10-30 cm from ground level (adjustable)
12	Cutting width, cm	120

TABLE 2: PERFORMANCE OF REAPER IN DRILL SOWN PADDY

SI No	Parameters	Kharif 2014	Kharif 2014	Kharif 2014	Kharif 2014	Average
1	Date of harvest	13-11-14	15-11-14	2-12-14	7-12-14	
2	Total area(ha)	3.61(131.67x27 4.32mts)	2.00 (145 x 138 mts)	0.28 (75.4x37.4 mts)	0.61(38x41mt s)	
3	Speed of operation (Km/hr)	3.2	3.3	3.3	3.4	3.3
4	Width of operation (m)	1.2	1.2	1.2	1.2	1.2
5	Theoretical field capacity(ha/hr)	0.38	0.40	0.40	0.41	0.39
6	Actual field capacity(ha/hr)	0.25	0.27	0.29	0.30	0.27
7	Field efficiency(%)	66	68	73	74	69
8	Time taken to cover 1 ha area (hr)	4.0	3.7	3.45	3.33	3.62
9	Fuel consumption (lit/ha)	6.0	5.8	5.5	5.5	5.7
10	Manual Labour required to cut the crop per ha	17	17	19	20	18.25
11	Variety	Jaya	Jaya	Abhilash	Abhilash	

CONCLUSION

The overall performance of the vertical conveyor reaper was quite satisfactory. The average actual field capacity of power reaper was 0.27 ha/hr with the average field efficiency of 69% at an average of 3.3 kmph and the fuel consumption was 5.7 lit/ha. The cost of cultivation of paddy could be reduced by reducing 10 man days per hectare through mechanized harvesting. The overall cost of harvesting was found to be reduced in case of mechanized harvesting by self propelled vertical conveyor reaper. Hence, the mechanical harvesting would be economical compared to the traditional methods.

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HADOOP MapReduce

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ABSTRACT

MapReduce is a program foundation which helps the builders in writing instructions which processes large quantity of disordered information parallelly over a scattered group of processors and separate or unconnected systems [1]. In 2004, google develops the concept of MapReduce. MapReduce software is comprised of a Map process whose work is to conduct refinement and resolving and a Reduce process whose work is to perform an review of working performance. A MapReduce foundation coordinates the actions by assembling the scattered servers, executing different jobs parallelly, handles each and every communiqué along with transfer of information among the disparate sections of the network, and provides tautology with defect forbearance and scalability also. GridGain and Hadoop are two open source java implementations of MapReduce.

KEYWORDS

MapReduce, hadoop, gridgain.

INTRODUCTION

MapReduce is a computer instruction writing prototype that was developed through the agency of Google [1]. MapReduce was formulated so that corresponding information handling on huge groups of systems can be simplified.

This planning and scheduling prototype is stirred through Map and Reduce basics that can be seen in Lisp or many other functional languages. Google had done a large number of various implementations for processing and computing large datasets then introduces the MapReduce framework. Mostly the given information found to be extremely huge but the calculations were comparatively simpler. Therefore the computations were needed to be scattered all over hundreds of systems so that the calculations can be finished within a smaller duration.

MapReduce can be used for processing large datasets because of its efficiency and scalability. When the concept of MapReduce came into existence, Google rewrite its entire web searching index system for using this modish planning and scheduling prototype. The categorization structure generates the information configuration for the use through Google network forage. The input data here exceeds 20 terabytes. In starting, the categorization structure move like a cycle of eight MapReduce functions, however various novel stages were included later. Altogether, the mid point of thousands of MapReduce processes are running everyday on Google cluster, processes more over and above 20 Petabytes of information everyday [2]. The concept of MapReduce is used for hiding the problem in data correspondance, defect forebearance, data supply and weight balancing. In addition with calculational problems, the software enigneer hardly requires to explain framework to control the information categorization and correspondance. Google implemented for designing the huge clusters of interconnected machines. For example, Hadoop is one of the open-source implementations of MapReduce, written in Java programming language. Hadoop utilizes various system in groups for distributing information management same as google MapReduce.

The parallelization does not need to be performed across various interconnected machines. There are different applications of MapReduce for parallel computing in various surroundings. Phoenix is another implementation of MapReduce that is intended to distributed cache, multiple hub and parallel processing structure. Mars is also a MapReduce implementation for graphic processing machine (GPUs). GPUs are massive coresspondent actionist having very high computational capacity and cache baud rate as compared to CPUs, but it is persistant to plan because of its construction and interfaces which are formulated especially for graphic implementations. MapReduce foundation can hide this difficulty, so that programmers can smoothly bind together the computational capacity of the GPU for information management task.

MapReduce

MapReduce is a planning and scheduling prototype originated by Google. MapReduce foundation comprises of customer donated Map and Reduce function and an implementation of MapReduce repository, which automatically manages data distribution, parallelization, load balancing, fault tolerance, etc.

With this, a user has to write few patterns, such as name of the input and output files, or a few alternative elective regulating parameters. The patterns additionally explains the breaking of given information to key/value pairs. In MapReduce prototype, customers describes their computations in the form of two tasks, one is Map and the other is Reduce. A key or value set is given to the Map task and it produces the output as a group of intermediary key/value sets.

Reduce accepts a key in the form of input and a inventory of values allotted to it. Input values for Reduce are spontaneously clustered from intermediary produce from the MapReduce repository. When essential Map jobs are finished, the repository acquires an intermediary key and batched it jointly with every other values related with it. The Reduce task acquires an intermediary key and the value repository allotted to it in the form of an input. It amalgamates the values in a manner that the customer has described in the execution of the Reduce task, and generates small groups of values. Commonly zero or one output or response is generated at every Reduce job. This prototype has some limits, because it only supplies map and reduce tasks to be executed by customer. Due to these drawbacks, MapReduce offers a simpler connection for customers for parallel and distributive computations. A programming model with limitations is good because due to that developer can concentrates on formulation of the real problem with only two simpler tasks.

Nevertheless, drawbacks reach it hard to utter some issues with this prototype. Yet many of information management jobs can be executed using MapReduce with efficiency. It is not difficult to include modish MapReduce phase to surviving MapReduce operation. By adding MapReduce sections, extra difficult issues can be uttered with this prototype.

The very common illustration of this prototype is a problem of calculating a quantity of recognizable words in a huge collection of documentation. The illustration is from [2].

```
/* key: page name
* value: page contents*/
map(key, value){
for each word w in value:
emit Intermediate(w, "1");}
/* key: a word
* values: list of counts for the word*/
reduce (key, values){
int result = 0;
for each v in values:
result += ParseInt(v);
emit(result);}
```

APPLICATIONS

After the introduction of MapReduce framework, research areas with various types of difficulty domains has increased using a MapReduce. Various calculations can be finished only by utilizing the

MapReduce prototype, but there are a few problems which cannot be uttered by using the Map and Reduce tasks.

Take an instance, the recurrences method of Genetic Algorithms cannot instantly be uttered by using Map and Reduce tasks. Genetic Algorithms are a type of development algorithms that are used in streams of chemistry and biology. Parallel Genetic Algorithms are adopted in order to achieve a better effectiveness, because in processing Genetic Algorithms for huge problem domains require a very long duration. MapReduce requires to be considerable to assist these type of algorithms, that can be acquired by including a second reduce section after the rounds, and a client for cooperating

the implementation of rounds. MapReduce is utilized in SMS message fedge. SMS messages are mainly utilized for a uncomplex communication among users. In any country a large number of messages are sent in every month. MapReduce is utilised as a foundation in message mining [3]. The messages are processed in three steps. Firstly, the pre-processing of original dataset is done and assembled by sender mobile numbers. It is finished by initiating MapReduce method. Second MapReduce method does a change for the regrouping of the datasets by small contented keys, and lastly the third MapReduce method is required for the mining of the famous messages.

Error-correcting ciphers are also helpful in several ways. If information files are needed to be stored on a defective channel, then the file is ciphered with an error-correcting cipher. If the file gets taint when storing, then it is restored when decoding the error correcting cipher. Encoding a huge number of files or huge files is the main issue which needs attention. For standard encoding and decoding algorithms, it is difficult to manage huge block size and it does not permit careless access of the data. Encoding should not be done on small pieces of a file error correction can be achieved with a improving working on huge documents.

Google's computing infrastructure is utilized by Feldman and also Google's MapReduce execution for encoding and decoding a huge twister cipher. Twister cipher are the cipher utilised for correcting errors. These ciphers contain some linear time algorithm to decode and encode. Mapreduce offers a concept named parallelization by the help of which twister codes can be used for large files.

Particle Swarm Optimization algorithm can be naturally utilised with MapReduce. To enhance tasks which have to check huge data, Particle Swarm Optimization algorithm is used on parallelization.

Generalized Stochastic Petri nets are a popular graphical modeling formalism which is used in the operational scrutiny of system and communiqué systems. The reply times can be calculated in parallel with the help of MapReduce.

There is an instance in astronomy related to this, in which the Large Synoptic Survey Telescope generates nearly twenty Terabytes data every night. Spatial queries are decayed and processed with the help of MapReduce for optimizing the performance, like reply time. Spatial queries includes spatial selection query, spatial join query, nearest neighbor query, etc. Parallelization is a better solution for these kind of problems.

IMPLEMENTATIONS

➤ Google's MapReduce

The target of google's MapReduce is huge groups of interconnected machines. The MapReduce library manages parallelization and data distribution in a mechanical way. The developers can concentrate on the main issue that is the presentation of computing problem using map and reduce functions because they have no need to be anxious about parallel and network programming. Local disk of interconnected machines are used for the distribution and saving of data.

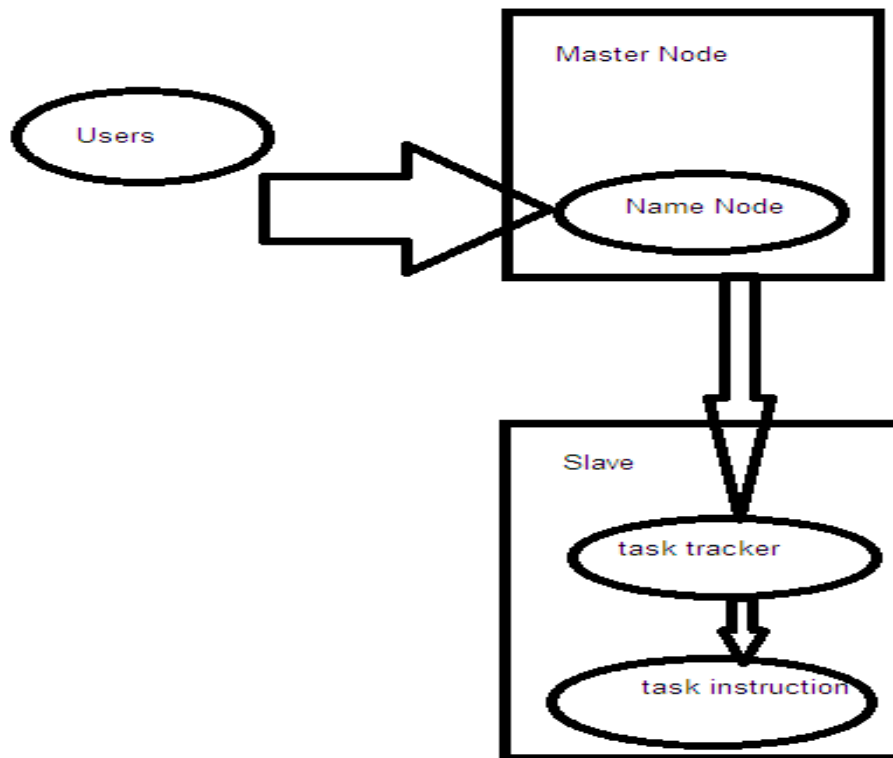
Google File System (GFS) [1] is a scattered file arrangement which is utilised for supervising saved information over the groups. For making the node more reliable and fault tolerant, GFS generates replicas of data blocks on various nodes.

MapReduce has high scalability; hence it can run on groups consisting of hundreds of cheaper cost machines.

➤ Hadoop

Hadoop is a MapReduce application whose developer is Apache [4]. The construction of Hadoop is necessarily the same as similar Google's application but the major dissimilarity is that Hadoop is an open-source application. Hadoop Distributed File System (HDFS) [4] is used of distributing the data across the interconnected machines. And it can generate a number of duplicate copies of data blocks to make it more reliable. Data storage is done on local disks on interconnected machines that make the data to access from other machines in the network.

FIGURE 1: HADOOP MapReduce [2]



It comprises of two main methods, one is the Name node and another is Data nodes. The Name node executes on a isolated leading system. It contains all information regarding every system in the network, and also the information of the data blocks that are saved on the machines in the group. Data node process executes on all the remaining machines in the group, and they communicates to the Name node for knowing that when data is to be obtained on their local hard disk.

Hadoop comprises of one Job Tracker and a number of Task Tracker methods or processes. The Job Tracker generally executes on the equivalent leading system as the Name node. Users drive their MapReduce functions to the Job- Tracker, that's job is to divide the exertion among the systems in the group. Every other system in group executes a Task Tracker method. The

TaskTracker interacts with the JobTracker that will allot it a Map or Reduce task whenever possible.

➤ GridGain

The GridGain has a similarity with hadoop that it is also an open source map reduce implementation [5]. From technical aspect, the major distinction is in the allotment operation of map function to various junctions. In the MapReduce algorithm the responsibility is divided into subtasks and operator pulls the divided fragments as soon as they have leisure processing time. In GridGain the subtasks are propelled towards the junctions. It enhances the load balancing property. In this, the developers have to preplan so that no operator will remain idle without any cause. It is unpopular as compared to Hadoop, but it has improved documentation and is good for novice users.

➤ Phoenix

Phoenix is a MapReduce application designed for distributed-cache machines [7]. It comprises of MapReduce programming prototype and related runtime repository which manages resources, fault tolerance and other related issues in a mechanical way. Threads are used by phoenix for generating parallel Map and Reduce functions. It can be utilized for parallelizing information concentrated computing on multiple hub and multiple processors machines. Overheads that are due to job reproduction and information interactions can be reduced while functioning in a distributed cached surroundings.

SCHEDULING

Here the main question arises that how the map and reduce tasks of thousands of jobs, that are present on a hadoop cluster for their processing, are scheduled. For this purpose

Hadoop uses a FIFO scheduler out of the box. Afterwards, two more schedulers have been developed. First one is the Fair Scheduler developed by facebook for fast response time for smaller jobs and a moderate finish time for the production jobs. Second one is Capacity Scheduler that was developed by Yahoo and this scheduler contains named queues in which jobs are submitted. A fraction of the total computing resource is assigned to the queues and jobs are weighted. There is no single scheduling algorithm that is suitable for different types of jobs or tasks. So we can conclude that a mixture of scheduling algorithms can be a better option depending upon various workload features.

ISSUES OF SCHEDULING IN MAP REDUCE

The following are the various issues in map reduce scheduling [6] :

➤ Locality

Out of the major problems in MapReduce scheduling, one is locality. The space between the input data junction and task -assigned node is termed as locality. Data transfer cost is minimum if the input information junction is near to the computational junction. Locality adversely affects the performance in a shared clustered or grouped environment, because of limited bisection bandwidth of network. The throughput of tasks is directly proportional to the locality. High the locality more will be the throughput of the tasks. The processing of a task or job on a junction having the information, called junction locality is the effectual case of locality. If node locality is not possible to attain, then running a task or job on the identical frame, known as rack locality, is used. If the requirements of locality are not complete, the transfer of data input output costs can affects the production because of the cached baud rate of network.

➤ Synchronization

It is the method of transfer of the intermediary output of the map process to the reduce process in the form of an input, is consider as a element too that adversely affects the performance. Mapper has to wait unless every map tasks are completed for initiating sending intermediary output. Because of the dependent nature of map and reduce sections of processing on each other, a isolated junction can deaccelerates the whole operation, which causes the other junctions to wait for

its completion. There are many factors that lead to fall in the performance in the synchronization step, some of these are heterogeneity of the groups, junction abortion miss-configuration, and serious raised burden of the input output quotation.

➤ **Fairness**

Many MapReduce tasks are executed in distributed information repository of organization such as facebook, Amazon, Google and Yahoo. A map-reduce task with a hefty assignment may influence the use of the distributed groups, so a few small computing tasks may not have the required response time. When every map-reduce task has nearly an equivalent percentage of the junctions and the input files are scattered in distributed file system, a few map process has to stack information from the network. Due to this, there is a large fall in the throughput and response time. Synchronization raised burden could affect the fairness. Let us consider an instance, reduce processes have to wait unless the map functions are completed or that results in idle nodes and starvation of remaining tasks. Because of this, there is no proper utilization.

CONCLUSION

Hadoop is in a great demand in the market nowadays. As there is a large amount of data lying in the industry but there is no proper tool that can manage it and hadoop can be implemented on lower cost hardware and can be used by a huge number of users. Map reduce is the most important component in hadoop. In this paper we have studied various methods for making the scheduler more efficient for the map reduce so that we can increase systems processing power, computational power, speed and performance.

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MEASURING POST ACQUISITION EFFICIENCY OF CORPORATE M&A IN INDIA (WITH SPECIAL REFERENCE TO TATA STEEL ACQUIRING CORUS)

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ABSTRACT

The Indian economic reform since 1991 has opened up a whole lot of challenges both in the domestic and international spheres. The increased competition in the global market has prompted the Indian companies to go for mergers and acquisitions as an important strategic choice. The trends of mergers and acquisitions in India have changed over the years. . The situation has undergone a sea change in the last couple of years. Acquisition of foreign companies by the Indian businesses has been the latest trend in the Indian corporate sector. This paper focuses on measuring and comparing the pre and post merger performance of Indian corporate sector with special references to the one of the biggest outbound merger and acquisition, Tata Steel acquiring Corus. This research paper has aimed to measure pre & post acquisition performance of Tata Steel whether it has achieved the positive financial efficiency post-merger in terms of Net Profit, Operating Profit, EPS and DPS. Two-tailed paired T- test has been employed as the statistical tool to test the validity of the data i.e. to test if the difference is statistically significant between the mean value of seven years data before and after merger. The findings of the study show the significant positive increase in the financial performance of Tata Steel post-merger in measures of NP, OP, and EPS and not statistically significant difference between DPS pre and post-merger.

KEYWORDS

merger, acquisition, net profit, operating profit, earning per share, dividend per share.

1. INTRODUCTION

In the past India has predominantly been known to investors as the hotbed of outsourcing & IT and has not been in the global radar as a deal centre. The prospects of venturing in have often been over shadowed by foreign investors' apprehensions. The conventional view of India is an economy of contrasts, a populous region, inadequate infrastructure, fabled bureaucracies and tradition of restrictive terms of foreign investors. However while some of these realities have not yet disappeared, a new India is emerging – young, entrepreneurial, skilled, competitive and positioned to be one of the world's great economic centre in the not too – distant future. India is on the verge of assuming leadership in its region and is playing a growing role in the world economy. Foreign investors, both strategic and financial are increasingly entering or expanding in the Indian market¹.

The trends of mergers and acquisitions in India have changed over the years. The situation has undergone a sea change in the last couple of years. Acquisition of foreign companies by the Indian businesses has been the latest trend in the Indian corporate sector. The immediate effects of the mergers and acquisitions have also been diverse across the economy, additional liquidity in the corporate sector, and dynamic attitudes of the Indian entrepreneurs were the key factors behind the changing trends of merger and acquisition in India.

On January 31, 2007, Tata Steel Limited (Tata Steel), one of the leading steel producers in India, acquired the Anglo Dutch steel producer Corus Group Plc (Corus) for US\$ 12.11 billion (€ 8.5 billion). The process of acquisition concluded only after nine rounds of bidding against the other bidder for Corus - the Brazil based Companhia Siderurgica Nacional (CSN).

This acquisition was the biggest overseas acquisition by an Indian company. Tata Steel emerged as the fifth largest steel producer in the world after the acquisition. The acquisition gave Tata Steel access to Corus' strong distribution network in Europe. (www.icmrindia.org)

2. OBJECTIVE OF THE STUDY

The main objective of this research paper is to ascertain the impact of M&A on the progress of the company financially profitably, earning capacity and dividend policies of the acquirer company in Indian corporate sector with special reference to the Tata Steel Ltd.

3. THE PRESENT STATUS OF M&A IN INDIA

In the last few years, India had witnessed a substantial slowdown in the mergers and acquisitions ("M&A") activity. In the year 2011, Indian companies were involved in around 644 transactions worth \$44.6 billion which was reduced in 2012 to 598 transactions worth \$35.5 billion, which were further reduced to less than 500 transactions worth \$30 billion in 2013.¹ However, in 2014 the heightened global M&A trend was seen to replicate in India and several big-ticket announcements boosted deal value in the Indian M&A landscape².

Total number of merger and acquisition (M&A) deals of Indian companies in 2014 rose to 1,177 – valuing at about USD 50 billion – the highest ever in a decade and the momentum is set to pick even higher this year, according to a report. M&A deals contributed close to USD 38 billion from 573 deals and Private Equity (PE) deals contributed USD 12 billion from 604 deals, said a new report by advisory firm **Grant Thornton**.

1. Ernst & Young: Cross border Transaction, Spotlight on India.
2. Nishith Desai Associates, Merger and Acquisition in India, May 2015.

According to Paris-based think tank OECD, Indian economy saw the "strongest growth" in the first quarter of 2015 among large economies, including China, the US, Germany and Canada. Data compiled by the Organization for Economic Cooperation and Development (OECD) showed that overall GDP growth in the G-20 area was slightly lower at 0.7 per cent during the January-March period. In the 2014 December quarter, the region had seen an overall expansion of 0.8 per cent. India recorded the strongest growth in the first quarter of 2015 (2.1 per cent, up from 1.4 per cent in the previous quarter).

4. RESEARCH HYPOTHESIS

There are 4 hypotheses which we would be starting our research study with and are as follows:-

- i) H_0 – There is no significant difference between the pre and post merger **operating profit** of the acquirer company.
 H_1 – There is significant difference the pre and post merger **operating profit** of the acquirer company.
- ii) H_0 – There is no significant difference between the pre and post merger **net profit** of the acquirer company.
 H_1 – There is significant difference between the pre and post merger **net profit** of the acquirer company.
- iii) H_0 – There is no significant difference between the pre and post merger **EPS** of the acquirer company.
 H_1 – There is significant difference between the pre and post merger **EPS** of the acquirer company.
- iv) H_0 – There is no significant difference between the pre and post merger **DPS** of the acquirer company.
 H_1 – There is significant difference between the pre and post merger **DPS** of the acquirer company.

5. REVIEW OF LITERATURE

A lot of literature is available in context of measuring performance of concerns post M&A. Some of the literature is as follows:

Prasad V Daddikar, Dr. Arifur Rehman H Shaikh (2014), in their research paper entitled – Impact of M&A on surviving firm Financial Performance: A Study of Jet Airways Ltd. examined that there is insignificant improvement in return on equity, expenses to income, EPS and DPS post merger. The study had the objective to ascertain if Jet Airways has achieved financial performance efficiency during post M&A period specifically in the areas of profitability, leverage, liquidity and capital structure.

Kumar (2009), "Post-Merger Corporate Performance: an Indian Perspective", examined the post-merger operating performance of a sample of 30 acquiring companies involved in merger activities during the period 1999-2002 in India. The study attempts to identify synergies, if any, resulting from mergers. The study uses accounting data to examine merger related gains to the acquiring firms. It was found that the post-merger profitability, assets turnover and solvency of the acquiring companies, on average, show no improvement when compared with pre- merger values. Kumar, R., (2009) "Post-Merger Corporate Performance: an Indian Perspective", Management Research News 32 (2).

Dr. Ramachandran Azhagaiah and T. Sathish Kumar (2011) analysed examined the corporate financial and operating performance of Indian manufacturing firms covering a period from 2004 to 2010. To measure the corporate performance, ratios analysis is used. Results show mixed results of pre-and post-merger values computed. The study proves that Indian manufacturing corporate firms involved in merger & acquisition (M&A) have increased their corporate performance.

Dr. V. K. Shobhana and Dr. N. Deepa (2011) made a probe into the fulfilment of motives as vowed in the merger deals of the nine select merged banks. The study uses Summary Statistics, Wilcoxon Matched Paired Signed Rank Test and 't' test for analysis and interpretation of data pertaining to the five pre and post merger periods each. The result indicates that there has been only partial fulfilment of the motives as envisaged in the merger deals.

Mahesh R. & Daddikar Prasad (2012) focused on the performance of Indian Airline Companies after the consolidation of Airline sector in year 2007-08. The main objective of this paper is to analyze whether the Indian Airline Companies have achieved financial performance efficiency during the post merger & acquisition period specifically in the areas of profitability, leverage, liquidity, and capital market standards. The finding of this study shows that there is no improvement in surviving Company's return on equity, net profit margin, interest coverage, earning per share and dividend per share post-merger & acquisition.

6. DATA COLLECTION AND METHODOLOGY

The empirical study analyses the data of selected acquiring firm for 15 years, 7 years before and 7 years after merger i.e. from 1999-00 to 2005-06 (pre-merger period) and 2007-08 to 2013-14 (post-merger period), 2006-07 is the year of acquisition. The research is based on secondary data and all financial data is collected from annual reports. To analyse the data various statistical measures like mean, variance and correlation are used for descriptive statistics.

7. SAMPLE TECHNIQUE

Convenience sampling has been employed to select the sample for the research purpose. Such sample is undertaken as it represents the better unit for the present study. Its last 15 years financial data is available easily for the research purpose. To perform the research study Tata Steel has been selected from the Indian corporate sector as it made the biggest outbound acquisition ever in Indian M&A history.

8. TEST OF HYPOTHESIS

To test the hypothesis, pre and post acquisition financial performance of Tata Steel Co. is compared to see if there is any statistically significant positive change in the financial performance after M&A using paired T-test at confidence level of 95%. The results are calculated using MS-Excel.

9. OPERATING PROFIT OF TATA STEEL LTD. 7 YEARS BEFORE AND 7 YEARS AFTER MERGER

TABLE 1: OPERATING PROFIT OF TATA STEEL (₹ in crore)

Year	₹	Year	₹
1999-00	1372.85	2007-08	8244.54
2000-01	1768.01	2008-09	9176.44
2001-02	1052.27	2009-10	8905.59
2002-03	2066.84	2010-11	11482.29
2003-04	3474.93	2011-12	11536.77
2004-05	5956.02	2012-13	11126.77
2005-06	5844.22	2013-14	12816.90

Source: www.moneycontrol.com

TABLE 2: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF OPERATING PROFIT

	Before	After
Mean	3076.448571	10469.82429
Variance	4307024.281	2862444.657
Observations	7	7
Pearson Correlation	0.780305946	
Hypothesized Mean Difference	0	
Degree of freedom	6	
t Stat	-15.04771572	
P(T<=t) one-tail	2.7141E-06	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	5.4282E-06	
t Critical two-tail	2.446911846	

Source: MS Excel

DISCUSSION

Ms Excel shows the following results comparing the operating profit of the Tata Steel Co. 7 years before and after merger, mean value of post merger is much higher (more than 3 times) than the mean value of the pre merger. The difference between the pre and post merger is also statistically significant as the two tail t-value 15.04771572 (ignoring negative sign) is greater than table value 2.446911846 i.e. ($t_{stat} > t_{crit}$) and p-value (two tail) 5.4282E-06 is less than .05 i.e. ($p\text{-value} < \alpha$).

Based on the above results and with 95% confidence level we are in position to **reject** the null hypothesis H_0 "There is no significant difference between the pre and post merger **operating profit** of the acquirer company" and **accept** the alternative hypothesis H_1 "There is significant difference the pre and post merger **operating profit** of the acquirer company".

10. NET PROFIT OF TATA STEEL LTD. 7 YEARS PRE AND 7 YEARS POST MERGER

TABLE 3: NET PROFIT OF TATA STEEL (₹ IN CRORE)

Year	₹	Year	₹
1999-00	422.59	2007-08	4687.03
2000-01	553.44	2008-09	5201.74
2001-02	189.19	2009-10	5046.8
2002-03	1012.31	2010-11	6865.69
2003-04	1746.22	2011-12	6696.42
2004-05	3474.16	2012-13	5062.97
2005-06	3506.38	2013-14	6412.19

Source: www.moneycontrol.com

TABLE 4: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF NET PROFIT

	Before	After
Mean	1557.755714	5710.405714
Variance	1995499.196	827498.5576
Observations	7	7
Pearson Correlation	0.293536481	
Hypothesized Mean Difference	0	
Degree of freedom	6	
t Stat	-7.638996097	
P(T<=t) one-tail	0.000131324	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	0.000262648	
t Critical two-tail	2.446911846	

Source: MS Excel

This is table which MS Excel shows when comparing the 14 years Net Profit data i.e. 7 years pre merger and 7 years post merger in t-test. The mean value of net profit has increased more than the three fold during post merger indicates the positive effect of the M&A. The difference between the pre and post merger net profit is statistically significant too because the calculated t-value (two tail) (ignoring the negative sign) is 7.638996097 is greater than the critical value 2.446911846 i.e. ($t_{stat} > t_{crit}$) and p-value (two tail) 0.000262648 is less than the alpha value 0.05 i.e. ($p\text{-value} < \alpha$).

Based on the results of the two tailed paired t-test analysed at 95% confidence level the null hypothesis H_0 "There is no significant difference between the pre and post merger **net profit** of the acquirer company" is **rejected** and alternative hypothesis H_1 "There is significant difference the pre and post merger **net profit** of the acquirer company" is **accepted**.

11. EPS OF TATA STEEL 7 YEARS BEFORE AND 7 YEARS AFTER MERGER

TABLE 5: EARNING PER SHARE OF TATA STEEL (₹ in crore)

Year	₹	Year	₹
1999-00	11.49	2007-08	63.85
2000-01	15.05	2008-09	69.70
2001-02	5.09	2009-10	56.37
2002-03	27.53	2010-11	71.58
2003-04	47.48	2011-12	68.25
2004-05	62.77	2012-13	53.13
2005-06	63.35	2013-14	66.02

Source: www.moneycontrol.com

TABLE 6: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF EARNING PER SHARE

	Before	After
Mean	33.25142857	64.12857143
Variance	601.7291476	48.06164762
Observations	7	7
Pearson Correlation	-0.126012068	
Hypothesized Mean Difference	0	
Degree of freedom	6	
t Stat	-3.10405404	
P(T<=t) one-tail	0.010503764	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	0.021007528	
t Critical two-tail	2.446911846	

Source: MS Excel

Post merger mean value of EPS has increased around double and this increased is statistically significant too as the results show the t-value 3.10405404 (ignoring negative sign) is greater than the table value 2.446911846 i.e. ($t_{stat} > t_{crit}$) and *p-value* (two tail) 0.021007528 is less than alpha value 0.05 i.e. ($p\text{-value} < \alpha$), so we are in position to **reject** the null hypothesis H_0 "There is no significant difference between the pre and post merger EPS of the acquirer company" and alternative hypothesis H_1 "There is significant difference between the pre and post merger EPS of the acquirer company" is **accepted**.

12. DPS OF TATA STEEL 7 YEARS BEFORE AND 7 YEARS AFTER MERGER

TABLE 7: DIVIDEND PER SHARE OF TATA STEEL (₹ IN CRORE)

Year	₹	Year	₹
1999-00	4	2007-08	16
2000-01	5	2008-09	16
2001-02	4	2009-10	8
2002-03	8	2010-11	12
2003-04	10	2011-12	12
2004-05	13	2012-13	8
2005-06	13	2013-14	10

Source: www.moneycontrol.com

TABLE 8: t-TEST: PAIRED TWO SAMPLE FOR MEANS OF DIVIDEND PER SHARE

	Before	After
Mean	8.142857143	11.71428571
Variance	15.80952381	11.23809524
Observations	7	7
Pearson Correlation	-0.521588266	
Hypothesized Mean Difference	0	
Degree of Freedom	6	
t Stat	-1.476561058	
P(T<=t) one-tail	0.095127487	
t Critical one-tail	1.943180274	
P(T<=t) two-tail	0.190254974	
t Critical two-tail	2.446911846	

Source: MS Excel

The mean value for the post 7 years have increased in comparison to the mean value of pre merger 7 years, but based on the above paired sample t – test analysis at 95% confidence level results the difference is not statistically significant because the calculated t-value 1.476561058 (ignoring negative sign) is less than the critical value 2.446911846 i.e. ($t_{stat} < t_{crit}$) and *p-value* 0.190254974 is greater than 0.05 i.e. ($p\text{-value} > \alpha$). Analysing these results, the null hypothesis H_0 "There is no significant difference between the pre and post merger DPS of the acquirer company" is **accepted** and alternate hypothesis H_1 "There is significant difference between the pre and post merger DPS of the acquirer company" is **rejected**.

13. CONCLUSION

The results show that there is significant improvement in Net Profit, Operating Profit and Earning per share and insignificant improvement in Dividend per share. The results from paired sample t-test at significant level of 95% illustrated that there is significant difference in the defined financial performance (OP, NP and EPS) standards between pre & post merger period due to significance level is less than the alpha level, hence this study has rejected the null hypothesis which shows the company had the positive impact of M&A on it. In terms of DPS t-test did not show any significant improvement in the post merger period and null hypothesis was rejected which shows company financial performance increased significantly but did not increased the level of dividend distributions on its share post merger.

14. LIMITATIONS OF THE STUDY

1. The study has focussed on selected industry and company for M&A in India context for the period of 1999-00 to 2013-14.
2. The study has analysed the performance of 7 years pre and post merger period which might not portray the total true picture of the concern performance.
3. The study has touched only four aspects of financial performance i.e. OP, NP, EPS, DPS and analysed the impact of M&A based upon them, this might again not present the true picture of performance of the concern post merger.
4. The study has ignored the change in accounting methods or principle or concept post merger.
5. The study has not used any control groups.

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BIT COINS: CEMENTING REGULATORY GAPS IN EMERGING MARKETS

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ABSTRACT

The world has seldom responded well to radical concepts and technology specifically when it relates to money. Bit coins are revolutionary as it tries to break away from the control of regulatory authorities and deals with non-physical money. Thus the challenge which Bit coin faces today is to overcome the suspicions of human kind and achieve a huge user base to sustain it. Bit coins have the competitive edge of reducing costs in transfer and cost of printing and maintaining paper money and it must use this potential to outweigh the other inherent weaknesses and risks. Bit coins must be backed by metals such as gold or silver to be treated as a purposeful form of money and can gain respect as it can be balanced/proffered for the precious metals. Currently they are used in a numerous application for Android phones like a debit or credit card. Similarly, they must tap the market for retail services, e-commerce etc. to have a competitive advantage. Bit coins need a rational regulatory protocol to attract more customer base. The key trial that is impediment to its growth is that the authorities lack the understanding behind its know-how. The instances of its illegal use have made the scenario more complex. Guidelines that is currently used by financial markets can be used uniformly world over and the software can be developed for making it a successful alternative currency.

KEYWORDS

bit coin, non-physical money.

INTRODUCTION

Bit coin is a decentralized digital currency which has no person or any institution controlling it or is it backed by precious metal holdings. The key distinguishing features of Bit coin is that it is decentralized and operated through peer to peer network - technological breakthrough for some. Created right after the financial crisis of 2008¹, it provided a solution for investors to be confident about the value without the need for the third party. It came at a time when trust was a scarce commodity and when leading Investment Banks had failed. The market sentiment was low as the single point of failure of Investment Banks had led to a complete system failure. Bit coins were the response to this loss of credibility by removing any centralized third party.

Bit coin's innovation was the removal of the financial services middleman. The process of purchasing a Bit coin involves use of Bit coin wallets where their addresses and balances are stored. The Bit coin address² is a 27 to 34 alphanumeric id and is similar to that of a cheque with an account and cheque number plus a routing number. There are no constraints to the number of accounts an individual holds. At the time of transaction the buyer and the seller create a new address which allows them to send the Bit coin and receive the payment and the string of number is sent to the seller. The wallet creates a cryptographic key pair where the private key is given to the buyer and the public key is used by the network to record and verify the transaction in the public ledger.

The verification is done by a miner and the Bit coin protocol replaces the banker with the miner and by doing so removes the cost of a middleman. The traditional role of the banker was to watch every transaction and verifying its validity. Satoshi Nakamoto³ designed a way for a computer to replace a banker. Bit coin is a push payment system, similar to cash, where the customer has to pre-emptively generate the transaction. In contrast, other payment systems such as credit cards are pull systems, where customers empower a retailer and then the retailer pulls the payment from the user's account. Push payment systems can have benefits in reducing fraud or unwanted purchases as customers govern the purchasing process.

Wallace (2011) reviews the early history of Bit coin and states that Nakamoto mined and introduced the first 50 units⁴ into circulation in 2009. Interest grew to the point that Bit coin began to trade in 2010⁵ on a Japanese-based online exchange, Mt. Gox. On the first day of trading on Mt. Gox, 20 Bit coin changed hands at a price of 4.951 cents, for total volume of slightly less than one U.S. dollar. The first purchase of goods and services using Bit coin is said by Wallace (2011) and other sources to have been two pizzas procured at a cost of 10,000 Bit coins in 2009⁶. The pizza parlour did not accept Bit coins directly, and instead a third-party broker was enlisted who agreed to procure the pizzas using a credit card (based on a real currency) and accept the Bit coin, worth almost \$5 million at recent prices, as a consideration.

Fred Ersham, co-founder of Coin base⁷, the leading digital wallet service, estimated in a March 2014 interview that 80% of activity on his site was related to speculation, down from perhaps 95% a year earlier (Goldman Sachs, 2014). If we take this estimate as correct, then perhaps 15,000 Bit coin transactions per day involve the purchase of a product or service from a merchant. In a world with 7,000,000,000 consumers, most of whom make multiple economic transactions each day, Bit coin appears to have an extraordinarily negligible market presence. Ersham further states in his interview that 24,000 merchants are registered with Coin base. Bit coin can accomplish this task securely through the use of cryptography.

OBJECTIVES

The objectives of this paper are as follows:-

1. To find out why digital currency are a new type of investment?
2. What are the key regulations that govern them in India and is there any gap in regulations?
3. To explore the ramifications for Business and the Government?

¹ Financial crisis of 2008, Global Financial crisis, Joel Havemann, Encyclopedia Britannica

² The Bitcoin Big Bang, How alternative currencies are about to change the world, Brian Kelly, Wiley Publications

³ Bitcoin, A peer to peer electronic cash system, Satoshi Nakamoto, www.bitcoin.org

⁴ The rise and fall of Bitcoin, Benjamin Wallace 2011

⁵ Handbook of Bitcoin, Bitcoin, Innovation, Financial Instrument, Edited by David Lee Kuo Chuen

⁶ Is Bitcoin real currency, An Economic appraisal, David Yermack, National Bureau of Economic Research December 2013

⁷ Coin base, Coin base is the World's best popular place to Buy and sell Bitcoin, Fred Ersham

REVIEW OF THE RELATED LITERATURE

Bit coin as an alternative currency authored by Tyler Durden (2013)⁸, delves into the transition of various currencies and the significance of Bit coin in today's digital era where the objective is to reduce the consumption of paper and retain a secure investment avenue. The author concludes the paper by emphasizing on the lack of regulatory control to govern illegal activities.

Omari Marian (2013)⁹ had the objective to find out how Bit coin affects revenue from Tax in his paper titled - Are crypto currency super tax heaven? The results of the study indicated that absence of governing rules under Income tax laws and the anonymity factor fuelled by the fork and merge pattern used by its users have enabled the Bit coin to be a safe haven from being taxed. Nickolos Plassaras (2013)¹⁰ investigated on the potential legal and economic challenges Bit coin poses to IMF for foreign exchange currency and established that Bit coins could cause serious economic harms unless the IMF develops a way to counter them. Since this currency is beyond the purview of legal framework of IMF, it could also be used in speculative attacks. David Yermack¹¹ examined if Bit coins could be used as a real currency in his paper in 2013. He established that it did not satisfy the criteria of medium of exchange nor can it be divided into small parts for purchase and that the threat associated with not being able to be preserved in a safe place are the three major reasons due to which Bit coin cannot be used as real currency. Ladislav Kristoufek¹² scrutinized the factors which affected the price of Bit coins and reasons for its volatility in his paper published in 2014; he found that the trade – exchange ratio has an inverse impact on its frequent use. This has a direct correlation with the transaction driver (price) and the technical driver (cost of mining).

BIT COIN EXCHANGES IN INDIA - UNOCOIN

Unocoin¹³ is an India based Bit coin exchange which was launched in 2013 on trial basis. It started its regular operation in 2014. The firm is partnering with various Bit coin related companies around the world for the advantage of its patrons. A verified user can trade, transact with, accept and store Bit coins. He can send Bit coins to his friend's email address (who may not have an Unocoin wallet), request Bit coins from a friend (who may not have an Unocoin wallet), and address book option to store multiple wallet addresses. One can even generate paper wallets to keep Bit coins safe and then easily import those addresses to ones' address book. The user may also top-up his/her mobile/DTH directly from their Unocoin account by paying with Bit coins. The users initially register themselves and verify their identity and then can buy/sell 10 Bit coins per day.

BIT COIN EXCHANGES IN INDIA - BTCX INDIA

BTCX¹⁴ India is a Bit coin exchange that offers trading between Indian rupees and Bit coin for Indian nationals. BTCX India is the first Bit coin exchange in India offering a secure, real time trading platform, following KYC and AML guidelines, and allowing instant INR deposits and withdrawals. BTCX India is promoted by S Capital Solutions Pvt Ltd, incorporated on 25th Nov 2013. BTCX India charges a 1% fee on all trades (including taxes). Transfers to/from BTCX India via NEFT, RTGS and IMPS are free of charge.

BENEFITS OF BIT COINS AS AN ALTERNATE CURRENCY

Bit coins have gained more popularity than any other currency within a short span of time. Use of the Bit coin is continuously going up with increasing awareness. Earlier on - one would not have thought that they could send money to other countries without following cross border rules. Other currencies are printed or minted but Bit coin is created by using the computer that makes it unique from others. Apart from reaping the benefits of moving away from paper currency, it provides the following benefits to its end users:-

- 1. LOW TRANSACTION FEES:** The transaction fees for dealing in Bit coins in developed countries ranges from 1% to 3% and in other countries it is Nil. Bit coins use its own payment gateway for transaction and so it charges only networking fees at a nominal rate thus leading to increase in margin.
- 2. ABSENCE OF CONSTRAINTS IN TRANSACTION:** Transacting with Bit coins is very simple anywhere in the world at any given time. There are no restraints on payment across borders, bank holidays etc. Also there are no regulators to control transactions of Bit coins. Merchants cannot charge extra fees and must clarify with the consumer before adding any charge.
- 3. PROTECTION FROM CHARGE BACK FRAUD:** Merchants using Bit coins are protected from charge-back fraud, i.e. a customer looking for a retraction of a payment once the good has been delivered. Critics argue that this is a double-edged sword, as the ones who are subject to fraud risk are the customers. Bit coin supporters counter that charge-backs, as currently implemented in credit card transactions, can be imitated using escrow transaction.
- 4. TRANSPARENT SYSTEM:** With the block chain system, all finalised transactions are available for everyone to see. Customer's public address is clearly visible to everyone so that transactions can be easily verified. However personal information is hidden. Bit coin protocols cannot be manipulated by any person, organization or government.
- 5. SECURITY:** Bit coin protects user's personal information and identity. Customers do not have to disclose personal identity information in Bit coin transactions unlike that for cash or credit card. Customers use anonymous Bit coin address that modifies with every transaction. But Cyber-attacks on major digital currency exchanges have threatened to derail the growth of the block chain technology.
- 6. MOVING AWAY FROM PAPER CURRENCY:** There is substantial cost to printing, retaining and safeguarding currency, which is currently borne in India by the RBI. The RBI and the banking system effectually fund the use of cash as a platform for everyone. This is not a social cost and it also uses raw cotton/wood pulp for its production instead of putting it to alternate use. The same cost could be used for development of education or research & development which is the need of the hour. In India, at the beginning of 2013-14, total currency in circulation amounted to Rs.11.8 trillion¹⁵. By the end of the year, it had grown to Rs.12.8 trillion, with Rs.13 trillion of new currency having been issued during the year. Additional new currency supplied during the year was thus more than the closing stock of currency at the end of the year. This is not an incongruity as the average lifetime of a currency note in India is less than one year.
- 7. EASE OF PARTICIPATION:** Customer requires no credit card or pin. Bit coin consumer only need a computer or smartphone with an internet connection to set up an account and transaction. For example in daily business activity, cheques are received and issued and for that businessman need to visit bank on daily basis. It is a time and money consuming activity. In case of Bit coin transaction, the user has to open account with a Bit coin exchange and commence with the transactions.
- 8. ABSENCE OF FINANCIAL INTERMEDIARY:** In the initial days when computer scientists used phone lines to send data files; they did not perceive they were inventing the Internet. Though the time taken was prolonged for the Internet to evolve into its present form, the metamorphosis was that the Internet decentralized information. Nonetheless, decentralized information also had the constraint of anyone posting erroneous information. This issue meant that one type of information (financial transactions) could not be decentralised, until Bit coin was evolved. Bit coin fathomed the problem of transmitting financial data over the Internet without a middleman and initiated an era where even financial dealings could be undertaken without a financial intermediary.

⁸ Bitcoin as an alternative currency, Libertarian vs Pragmatist, Tyler Durden 12/30/2013

⁹ Are crypto currency super Tax haven, Omari Marian 2013, Asst. Professor of Law, University of Florida Levin College of Law

¹⁰ Regulating Digital Currency, Bringing Bitcoin within the reach of IMF, Nicholas A. Plassaras 2013

¹¹ Is Bitcoin real currency, An Economic appraisal, David Yermack, National Bureau of Economic Research December 2013

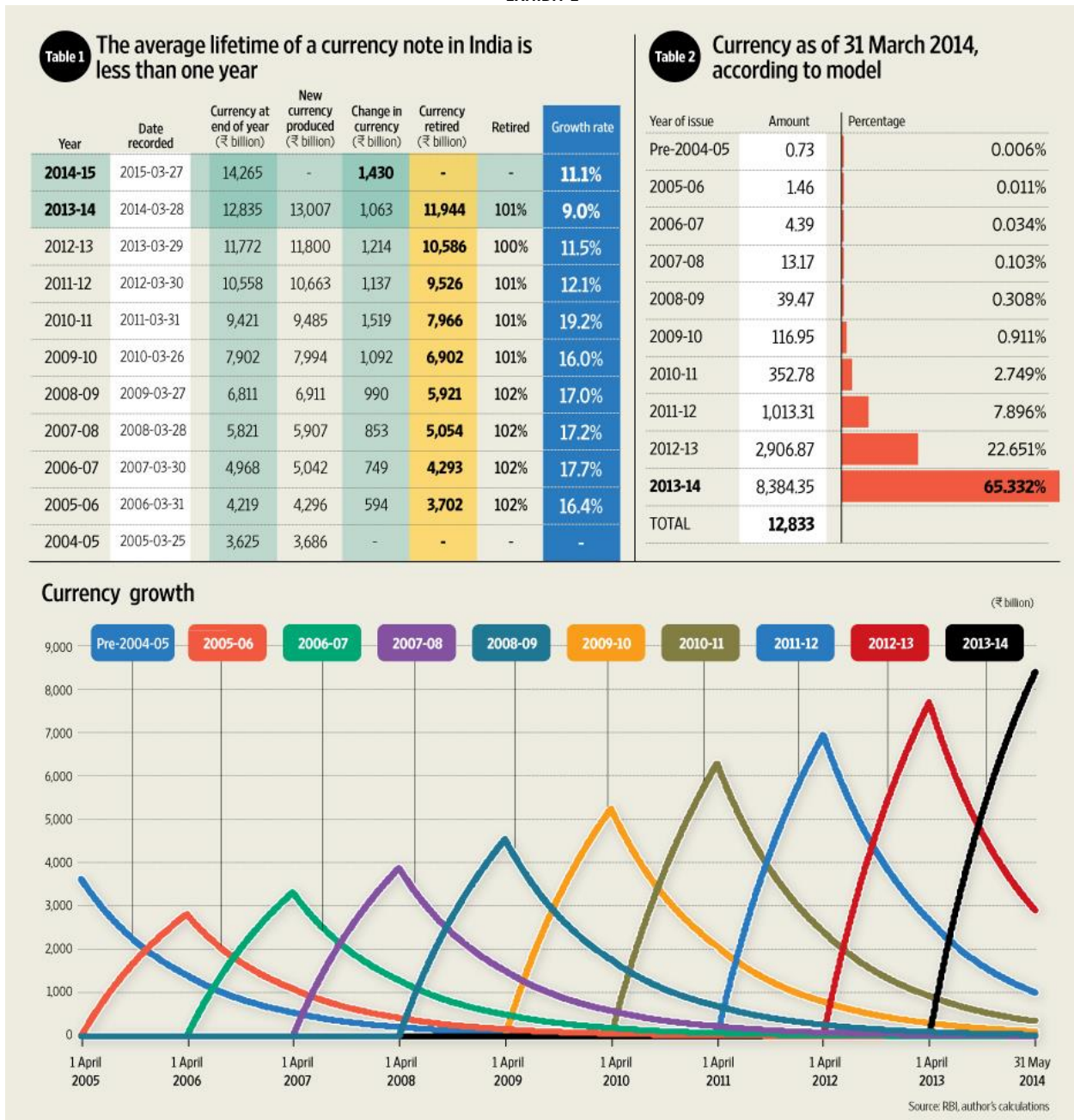
¹² What are the main drivers of Bitcoin prices, Evidence from wavelet coherence analysis, Ladislav Kristoufek

¹³ Coinmonk venture private limited, Unocoin, December 2013

¹⁴ BTCX India Promoted by S capital solution, Incorporated on 25th Nov 2013, BTCXIndia.com

¹⁵ The life cycle and cost of a Banknote, average age of Indian currency, Live mint, April 14 2015

EXHIBIT 1



CHALLENGES IN USAGE OF BIT COIN IN INDIA

The following are the challenges faced in India on usage of the Bit coin :-

- 1. LACK OF TRUST AND THE VEILED IDENTITY OF ITS INVENTOR:** The physical money that has been used by all is used for all transactions which are conducted by a common man on a day to day basis. He trusts the paper money as it is accountable and will be espoused by the government. But Bit coins cannot be used in this manner and this is a major barrier for the development of this alternate currency. Further the anti- trust on Bit coins is further fired by Satoshi Nakamoto's concealed identity which has not stimulated assurance among the investing community.
- 2. ANONYMITY CLAUSE AND ABSENCE OF THIRD PARTY/RESPONSIBILITY FROM TOP:** The investors can start as many wallets as required and this information is totally confidential. There is no connection with any intermediaries due to which tax authorities cannot easily trace the dealings of the account. Increased anonymity comes from the use of pseudonyms. It is a decentralized peer to peer system with no one responsible at the top management other than the protocol. The common man would not know whom to contact if something goes wrong.
- 3. PROBLEMS WITH SOFTWARE:** One of the major challenges faced by the software is that it can be replicated. This may increase its competitors who can come up with their own digital currency, though the initial cost of installation would be phenomenal.
- 4. SECURITY CHALLENGES:** In a defining moment in Bit coin history, Mt. Gox, the leading Bit coin exchange, exposed a "loss" of 850,000 Bit coins in Feb 2014¹⁶, with a value at the time of approximately \$473 million. One of the world's first Bit coin exchanges, Mt. Gox in the long run had built up a massive customer base – with 80% of global trading volume at its peak. All trading was sealed after technical issues ensued in the said loss, leaving the exchange insolvent and many customers in the lurch. Mt. Gox filed for bankruptcy shield in Tokyo District Court on 28 Feb 2014, stating it couldn't account for 750,000 of its customers' Bit coins and 100,000 of its own, valued at \$474 million apart from the cash customer deposits of \$27.3 million. Mt. Gox, at long had difficulties dispensing international wire transfers for people who wanted to cash out their Bit coins. On 07 Feb 2014, it had ceased Bit coin withdrawals while probing a security flaw called transaction malleability. Bit coin software authorities said Mt. Gox's highly commissioned code may have exacerbated that issue. Mt. Gox's website went blank on 25 Feb 14

¹⁶ Mt. Gox seeks bankruptcy after \$480 million Bitcoin loss, Bloomberg Business, March 1 2014

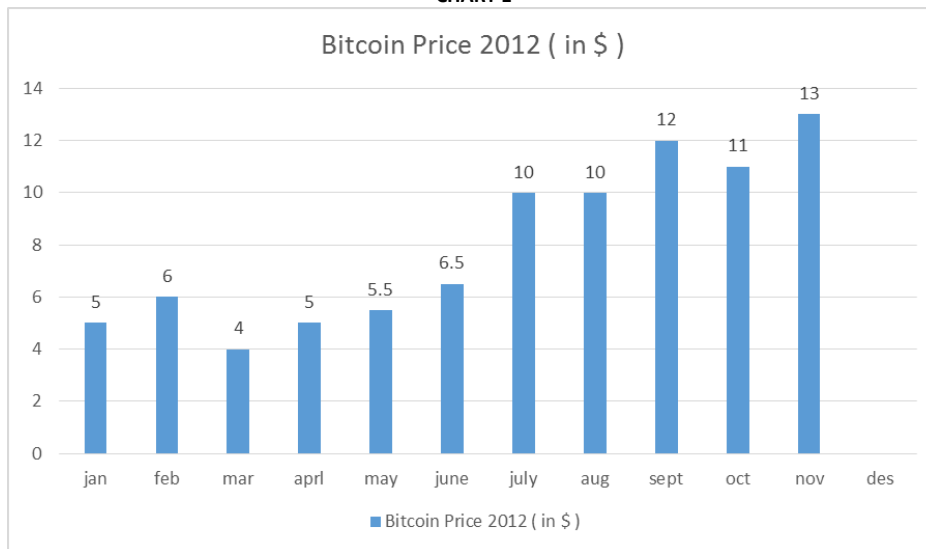
without providing any clarification. On February 23rd, Mark Karpeles¹⁷, the CEO of Mt. Gox, resigned from the board of the Bit coin Foundation. On February 24th, it was revealed that Mt. Gox was planning to go bankrupt and had lost 744,408 Bit coin in a theft that had occurred years earlier.

After the Mt. Gox controversy in 2014, security has become major challenge for this digital currency. Investors primary concern is security of their investments be it short term or long term. In Jan 2015, 19000 (value - \$5million)¹⁸ Bit coins were stolen from BITSTAMP exchange which is world third largest busiest Bit coin exchange. Well protected system and secure wallets are key concern for holding Bit coins. In India, digital currency like Bit coin is a novel concept for the common man where people have less faith in financial institution except the government. Thus the primary challenge is to build trust among people as they don't see it as a prospective investment vehicle like Fixed deposits, retirement plans and pension schemes.

5. REGULATORY CHALLENGES: The crypto currency is less regulated as it is not being controlled by any central authority. There are cases of money laundering and transferring money for illegal activities using this currency. In fact in 2013 FBI and The USA government banned Silk Road¹⁹ an online market place for buying and selling illegal drugs²⁰, where the transaction was conducted by using Bit coins²¹. Globally regulations are being introduced to bring it under the foreign exchange act and thereby boosting investors' confidence in it. The two major concerns associated with Bit coins are absence of tax and absence of insurance against volatility. It cannot be used as a consumer finance credit loans and mortgage nor are any credit cards available.

6. VOLATILITY: One more challenge in using the crypto currency is related to volatility as the demand is higher and the supply is limited. Over the last three years the value of Bit coins has fluctuated by more than 400 %. Such violent price movement are not consistent within such a short time and would not be considered ideal by the investor. However in due course it is expected that its value will settle down to better stability. Bit coin's exchange rate volatility in 2013 was 142%²², an order of magnitude higher than the exchange rate volatilities of other currencies, which fall between 7% and 12%. Gold, which is a plausible alternative to these currencies as a store of value, had volatility of 22% in 2013 based on its dollar-denominated exchange rate. Since it is a start-up currency and investors are still testing it, it has been volatile in nature. Risk management is therefore much needed to treat this highly fluctuating currency. A regulated system for diverting exchange rate risk is thus the need of the hour.

CHART 1

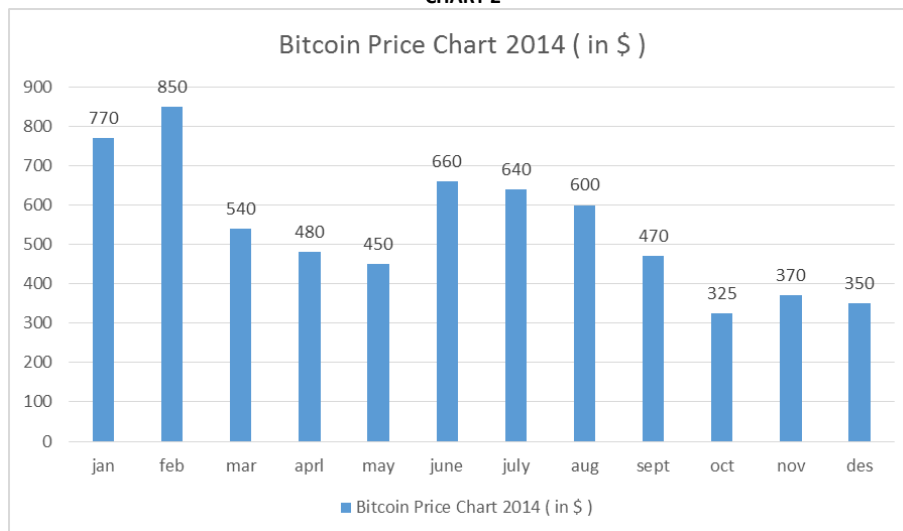


Source: www.Coindesk.com

Block chain info

Bitcoin charts.com/chart/Bitstamp

CHART 2



Source: www.Coindesk.com

Block chain info

Bitcoin charts.com/chart/Bitstamp

¹⁷ Mt. Gox CEO resigns from Bitcoin foundation, Monday 24 Feb 2014, Reuters

¹⁸ Bitstamp exchange hacked, \$5 million worth of Bitcoin stolen, Jan 5 2015, ZD Net

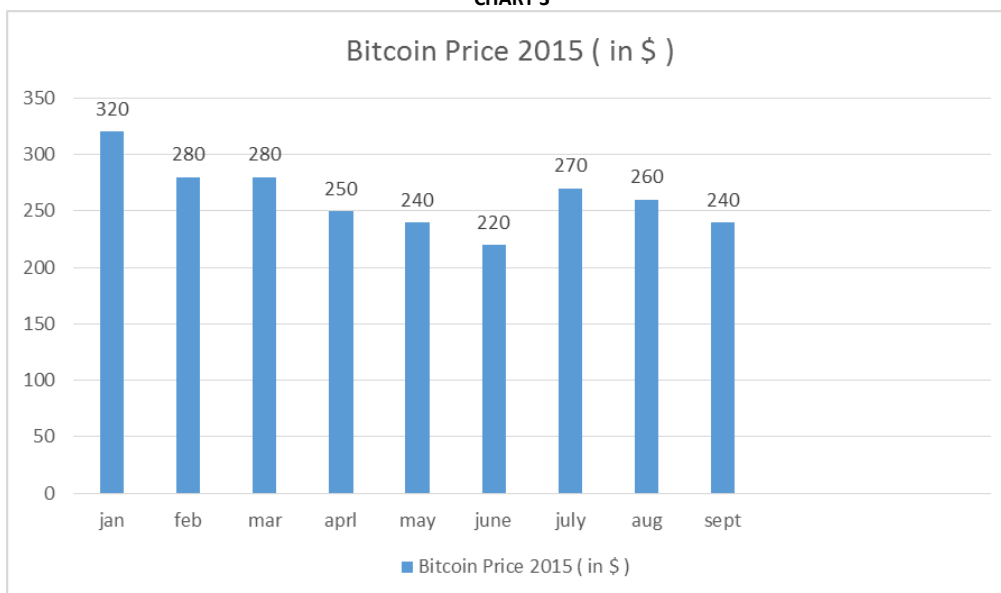
¹⁹ USMS has announced the final Silk Road Bitcoin auction, Silk Road drug, Silk Road 3.0

²⁰ FBI claims largest Bitcoin seizure after arrest of alleged Silk Road founder, The Guardian Oct 2013,

²¹ How the Feds took down the Silk Road drug wonderland, Ross Ulbricht, Nov 2013, W I R E D

²² Is Bitcoin money, Bitcoin alternative theories of money, Independent writing project, spring 2013, professor Christine Deasn, April 23,2012

CHART 3



Source: www.Coindesk.com

Block chain info

Bitcoin charts.com/chart/Bitstamp

7. **LACK OF AWARENESS AND UNDERSTANDING:** There is lack of awareness among the general public about digital currency. The literacy on cryptocurrency and the knowledge of technology is needed as otherwise the understanding of this digital currency may take a long time.

8. **USE FOR ILLEGAL AND IMMORAL ACTIVITIES:** The absence of a regulator may lead to a situation where apart from money laundering, Bit coins are used for trade in weapons, drugs, human trafficking and terror activity. Further once Bit coin wallet is stolen and emptied, the user will have to bear the loss. Bit coins' nature of transaction is untraceable and that might encourage criminal activity like black market. Also if a hacker could obtain the identity of the address analogous to a customer, he/she would then have entree to the customer's complete financial information.

9. **LACK OF LIQUIDITY:** Bit coin lacks liquidity compared to fiat currencies, as attested by the volume of foreign exchange markets for crosses such as the EUR/USD or GBP/USD, which are up to three orders in magnitude larger than Bit coin's exchange turnover. Also, established fiat currencies have large network externalities that preclude competition from alternative currencies. Further, transactions take several minutes on average to be confirmed, i.e. included in the block chain. Meanwhile, change from an unconfirmed transaction is locked and cannot be used until the transaction is cleared. This can cause inconvenience for a user following a regular shopping pattern, say in a mall. A user spending a transaction output would have to wait for the change of this transaction to be confirmed in the block chain before being able to spend this change in a following transaction. Wallets can assist in mitigating this problem, like spreading large transaction outputs into many outputs of small quantity so they can be readily spent.

10. **REGULATIONS OF BIT COINS IN THE GLOBAL SCENARIO:** The digital currency regulation has been stringent in certain countries²³, where they have been banned while few countries have followed the non-intervention policy. The primary reason for their being banned is to rein in international capital inundation. Though many investors may feel repugnant to the idea of regulating digital currency, it is however the need of the hour to give it authority and for protection against rapacity. Central Banks around the globe, taxation authorities and financial market governing bodies are trying to comprehend the impact and scope of digital currency towards regulating the same so that it may be legitimised in the long run.

REGULATIONS IN INDIA

When the Tax department raided the exchange - Buysellbit.co.in²⁴, to probe the use of virtual currency, its operations were shut down. Many start-ups in India, an emerging start-up source are waiting to enter the market for alternative currency, save for the regulations which are yet to be elucidated. Digital cryptographic currencies are new, and there are not enough regulations governing them. Mining, buying and selling Bit coin is not illegal in India²⁵, but it is not recognized by law either, and their taxability is a BIG question mark. The current regulation may be summed up as - "As long as a user retains Bit coins and does not convert them into rupees, it need not be included in his income". This is rather vague. At present, there are no regulations governing virtual currencies like Bit coin in India. On 24 December 2013, RBI, issued a press release²⁶ on virtual currencies like Bit coin, Lite coins, BBQ coins, Doge coins stating that their creation, trade and usage of virtual currencies as a medium for payment is not authorized by any Central Bank or Monetary Authority. Further, RBI has cautioned virtual currency traders and users to various security related risks such as hacking, malware attack etc. While RBI has not legalized Bit coin, it has also declared NOT declared them unauthorized as of now, albeit with the cautionary notice. RBI is currently examining the risks associated with the usage, holding and trading of virtual currencies under the extant of legal and regulatory framework of India, including foreign exchange and payment systems laws and regulations.

RECOMMENDATIONS ON REGULATIONS THAT CAN BE INTRODUCED

There are therefore certain regulations recommended to be imposed on virtual currency, which are as enumerated in the succeeding paragraphs.

1. Bit coins be treated as a virtual commodity and the regulations be implemented according to its characteristics. For example in USA, digital currencies are treated like property rather than a currency²⁷. The ruling has given transparency on its tax implications for investors clearly. Further it is exempted for tax rate as capital gain if it is held for more than a year thus motivating investors to hold Bit coins for a longer period which also reduces its volatility.
2. A law that governs Bit coins be introduced with stipulations of registering of dealers, provide all bank details and also identify source of funds in case of any international transfer. USA took the lead in setting up the first regulatory agency exclusively to deal with digital currency and to curtail the felonious use of digital currency. The objective was to prevent fraud and illegal transactions for any entity that accepts currency and performs money transmission service.
3. The regulatory bodies should apply the same rules that exist at brokerages to remove the anonymity constraint existing in transaction of Bit coins. This makes it mandatory for the financial Institutions to follow the KYC norms. This would enable them to keep track of investment gains and what they owe as taxes.

²³ Taxation on virtual currency, Bal, Aleksandra Marta, 2014-12-2

²⁴ ED raids offices of Bitcoin websites, Medianama.com, Jan 2014

²⁵ Bitcoin Legal or Illegal in India, PSA, E-newsletter, April 2014

²⁶ RBI cautions users of virtual currency against risks, Reserve Bank of India Press release, Des 24, 2013

²⁷ IRS says Bitcoin is property, not currency, The Wall Street Journal, Bloomberg, Mar 2014

4. The regulations should make it mandatory to identify the user in order to complete certain transactions thus making it more transparent and accountable. The regulation of dealing with a virtual currency where the transactions can be done only within India can be introduced to restrict international capital inflow. This would impede money laundering activity.
5. Bit coins be treated as an electronic service and thus made taxable as during the process of sale the trading is done through a website. Government can also introduce VAT²⁸ liability for Bit coin transfers as applicable.

CONCLUSION

The world has seldom responded well to radical concepts and technology specifically when it relates to money. Bit coins are revolutionary as it tries to break away from the control of regulatory authorities and deals with non-physical money. Thus the challenge which Bit coin faces today is to overcome the suspicions of human kind and achieve a huge user base to sustain it. Bit coins have the competitive edge of reducing costs in transfer and cost of printing and maintaining paper money and it must use this potential to outweigh the other inherent weaknesses and risks. Bit coins must be backed by metals such as gold or silver to be treated as a purposeful form of money and can gain respect as it can be balanced/proffered for the precious metals. Currently they are used in a numerous applications for Android phones like a debit or credit card. Similarly they must tap the market for retail services, e-commerce etc. to have a competitive advantage. Bit coins need a rational regulatory protocol to attract more customer base. The key trial that is impediment to its growth is that the authorities lack the understanding behind its know-how. The instances of its illegal use have made the scenario more complex. Guidelines that is currently used by financial markets can be used uniformly world over and the software can be developed for making it a successful alternative currency.

To conclude we quote, Francois Verde(2013), a senior economist at the Federal Reserve Bank of Chicago "Although some of the enthusiasm of Bit coins is driven by distrust of state issued currency, it is hard to imagine a world where the main currency is based on the extremely complex code understood by a few and controlled by a fewer without accountability, arbitration or recourse. Bit coins are free of power of state but it is also outside the protection of state.

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²⁸ Bitcoin – A global prospective, Indian legal and Tax consideration, Nishith Desai, April 2015

A STUDY ON PAYROLL MANAGEMENT: SOUTH CENTRAL RAILWAY

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ABSTRACT

Payroll is an important activity in any organization. Payroll software has been specially designed to provision the automation of the payroll system. With our payroll software, it is possible to maximize the potential of payroll through timely and accurate salary processing, efficient handling of reimbursements, loans & advances and Government of India statutory requirements including all PF, ESIC and TDS. In a globalized organization the impedance of federal and state government laws need all employers to comply with wage and hourly standards to ensure all employees are paid salary on time. The Personnel Department of SCR (South Central Railway) deals with all aspects of human resource management right from recruitment to post retirement. The Personnel Department is dedicated, responsive and sensitive to the needs of the employees. Personnel department strives in keeping the work force satisfied and motivated by promptly attending to the employees and their welfare by means of sincere, efficient and transparent working.

KEYWORDS

organization, payroll, requirement, salary.

1. INTRODUCTION

In a company, payroll is the sum of all financial records of salaries for an employee, wages, bonuses and deductions. In accounting, payroll refers to the amount paid to employees for services they provided during a certain period of time. Payroll plays a major role in a company for several reasons. From an accounting perspective, payroll is crucial because payroll and payroll taxes considerably affect the net income of most companies and they are subject to laws and regulations.

The primary mission of the payroll department is to ensure that all employees are paid accurately and timely with the correct withholdings and deductions, and to ensure the withholdings and deductions are remitted in a timely manner. This includes salary payments, tax withholdings, and deductions from a paycheck.

Payroll can also refer to the list of employees of a business and the amount of compensation that is due to each of them. Payroll is a major expense for most businesses and is almost always deductible as such. Payroll can differ from one pay period to another due to overtime, sick pay and other variables.

Compensation provided to an owner whose private real property is seized by the government's power of eminent domain, which allows it to take such property for public use. For example, when the national highway system was being constructed in the 1950s, many homeowners had their property seized through eminent domain because the government wanted the land to build the highway system. The just compensation remedy is provided by the Fifth Amendment's taking clause, and is usually considered to be fair market value. However, what the government considers just compensation may not be considered as such by the person whose property is seized.

One reason why an individual who loses his home to eminent domain may not consider the fair market value of the property to be just compensation is because it does not take into account the time, stress, and expense of locating, purchasing, and moving to a new property. Just compensation also fails to account for the loss of neighborhood social networks or the emotional ties the owner may have to the property.

1.1 OBJECTIVES OF THE STUDY

- **PRIMARY**
 - To conduct an in-depth study on payroll system followed in the south central railway.
- **SECONDARY**
 - To understand the HR roll in Payroll.
 - To review the effectiveness of the Payroll Management system of South Central Railways
 - To find about the software's used in Payroll process and satisfactory level of employees using this software's.
 - To increase to the fullest the employee's job satisfaction.
 - To analysis whether these software's are user friendly.
 - To develop and maintain a quality of work life.

1.2 SCOPE OF THE STUDY

This study is designed to develop a Computerized Payroll System for South Central Railways (SCR). It covers the process of preparing the Pay slip of each employee, the regular and job order employee, keeping of records safety and computing the exact wages of each employee, including the stored report list of employees such as monthly salary. The scope of the industry is vast in area which must be covered from all the information throughout the industry. Mostly the Indian railways are considered for the study. The study provides a clear idea on growth of railways industry from past to the scenario and its scope in the future.

1.3 LIMITATIONS OF THE STUDY

- The study is restricted only to the SCR Secunderabad Division., and cannot be generalized.
- One of the important limitations of the study was "Lack of time", through the respondent of the study were due to the time constraints the sample size was limited.
- This research had difficulty with most of the respondents, as they were busy with their works.
- The respondent attitude did not allow me to get their true feelings.
- The result of the study is subjected to personal bias of employees.
- An exhaustive study could not be carried out in view of the size of the organization and limited time available.

1.4 METHODOLOGY OF THE STUDY

The **primary data** are those which are collected afresh and for the first time, and thus happen to be original in character. Here structured questionnaire is used as a tool by asking a set of standardized questions.

The **secondary data** are those which have already been collected by someone else and which have already been passed through the statistical process.

Sample Size: 50

2. REVIEW OF LITERATURE

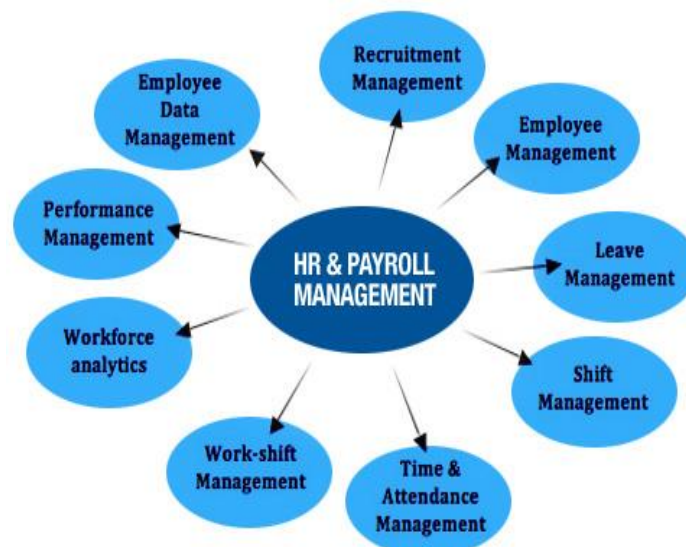
A Human Resource Management System (HRMS) or Human Resource Information System (HRIS) refers to the systems and processes at the intersection between human resource management (HRM) and information technology. It merges HRM as a discipline and in particular its basic HR activities and processes with the information technology field, whereas the programming of data processing systems evolved into standardized routines and packages of Enterprise Resource Planning (ERP) software. On the whole, these ERP systems have their origin on software that integrates information from different applications into one universal database. The linkage of its financial and human resource modules through one database is the most important distinction to the individually and proprietary developed predecessors, which makes this software application both rigid and flexible.

The function of Human Resources departments is generally administrative and common to all organizations. Organizations may have formalized selection, evaluation, and payroll processes. Efficient and effective management of "Human Capital" progressed to an increasingly imperative and complex process. The HR function consists of tracking existing employee data which traditionally includes personal histories, skills, capabilities, accomplishments and salary. To reduce the manual workload of these administrative activities, organizations began to electronically automate many of these processes by introducing specialized Human Resource Management Systems.

HR executives rely on internal or external IT professionals to develop and maintain an integrated HRMS. Before the *client-server* architecture evolved in the late 1980s, many HR automation processes were relegated to mainframe computers that could handle large amounts of data transactions. In consequence of the high capital investment necessary to buy or program proprietary software, these internally developed HRMS were limited to organizations that possessed a large amount of capital. The advent of *client-server*, Application Service Provider, and Software as a Service SAS or Human Resource Management Systems enabled increasingly higher administrative control of such systems. Currently Human Resource Management Systems encompass:

- Payroll
- Time and Attendance
- Appraisal performance
- Benefits Administration
- HR management Information system
- Recruiting/Learning Management Training System
- Performance Record
- Employee Self-Service
- Scheduling
- Absence Management

EXHIBIT 1: HR & PAYROLL MANAGEMENT



The payroll module automates the pay process by gathering data on employee time and attendance, calculating various deductions and taxes, and generating periodic pay cheques and employee tax reports. Data is generally fed from the human resources and time keeping modules to calculate automatic deposit and manual cheque writing capabilities. This module can encompass all employee-related transactions as well as integrate with existing financial management systems. The time and attendance module gathers standardized time and work related efforts. The most advanced modules provide broad flexibility in data collection methods, labor distribution capabilities and data analysis features. Cost analysis and efficiency metrics are the primary functions.

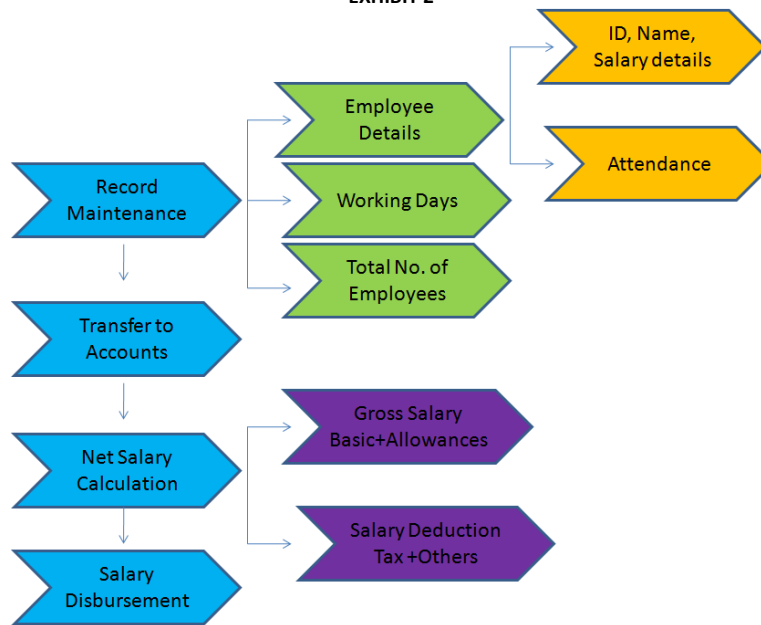
The benefits administration module provides a system for organizations to administer and track employee participation in benefits programs. These typically encompass insurance, compensation, profit sharing and retirement.

The HR management module is a component covering many other HR aspects from application to retirement. The system records basic demographic and address data, selection, training and development, capabilities and skills management, compensation planning records and other related activities. Leading edge systems provide the ability to "read" applications and enter relevant data to applicable database fields, notify employers and provide position management and position control. Human resource management function involves the recruitment, placement, evaluation, compensation and development of the employees of an organization. Initially, businesses used computer based information systems to:

- Produce pay checks and payroll reports;
- Maintain personnel records;
- Pursue Talent Management.

The Employee Self-Service module allows employees to query HR related data and perform some HR transactions over the system. Employees may query their attendance record from the system without asking the information from HR personnel. The module also lets supervisors approve O.T. requests from their subordinates through the system without overloading the task on HR department.

EXHIBIT 2



SOFTWARE USED IN RAILWAYS FOR PAYROLL PROCESS

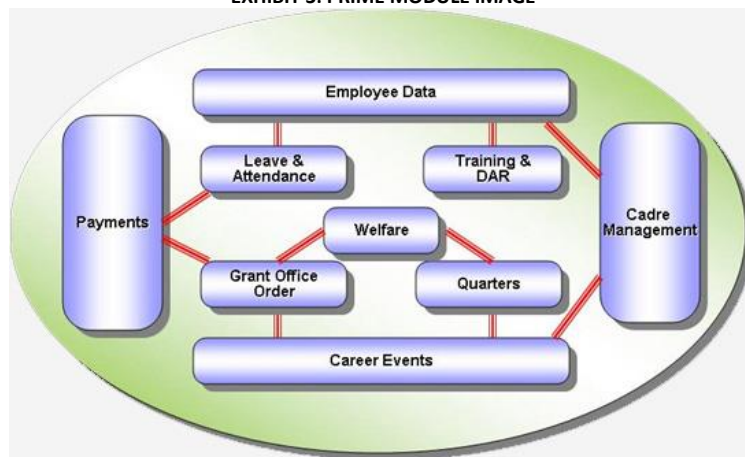
This paper covers the issues arising out of IT Audit of a computerized application - Pay Roll and Independent Modules (PRIME) in three Zonal Railways - Southern Railway (SR), Chennai, Western Railway (WR), Mumbai and South Eastern Railway (SER), Kolkata.

PRIME was initially developed by Southern Railway, Chennai as a pilot project, as a part of the scheme of Railway Board to implement a uniform online payment and accounting system all over Indian Railways. The application was developed and implemented (April 2000), by outsourcing to M/s Faculties India Systems Services Pvt., Ltd. Bangalore (now M/s FI SOFEX) at a cost of Rs.23 lakhs. PRIME was designed and developed for distributed processing in Oracle, Developer 2K (front end) and SCO UNIX (operating system). The processing of transactions on the system could be done either on-line or at designated central locations in batches. The application was designed to monitor various career events of railway employees and to serve as a decision support system for human resource management apart from generating different establishment bills and monitoring recoveries from employees. The focus of IT audit review in the three Zonal Railways was assessing the control environment in which the applications software was being run, along with its adequacy and effectiveness.

Analytical review coupled with substantive testing using CAATs (Computer Assisted Audit Techniques) tools via IDEA (Interactive Data Extraction Analysis) and MS Excel was conducted to assess the reliability of the data processed and produced by the system.

- To support the activities of human resource management as a decision support system rather than as a lifeless automated tool
- To capture and maintain all career events of employees and monitor recoveries from employees on the computerized system
- To process and generate bills for all types of employee claims including regular salary bills from the computerized system
- To generate MIS report required by different departments and units.
- To facilitate re- engineering planned in the function of personnel dept.
- To ensure that no data pertaining to an employee is missed especially career events, payments, recoveries, and service records.
- To ensure that changes in salary like increments, promotions, reversions, recoveries, and etc are taken effect as soon as the event happens.

EXHIBIT 3: PRIME MODULE IMAGE



3. DATA ANALYSIS

1) The Clients Satisfaction with the Software Used in South Central Railways for the Pay Roll Processing

Particulars	No. of Respondents	Percentage
Satisfied	15	30
Neutral	30	60
Dissatisfied	5	10
Total	50	100

TABLE 1

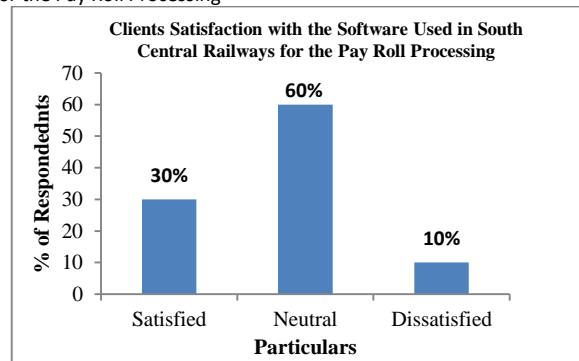


FIG. 1

Interpretation: From the above table we can able to know that 30% of the respondents suggested that the client are satisfied with the software used in South Central Railways and 60% of the respondents suggested that the client are neutral with the software used in South Central Railways and 10% of the respondents suggested that the client are dissatisfied with the software used in South Central Railways.

2) Whether the software is user friendly

Particulars	No. of Respondents	Percentage
Yes	28	56
No	22	44
Total	50	100

TABLE 2

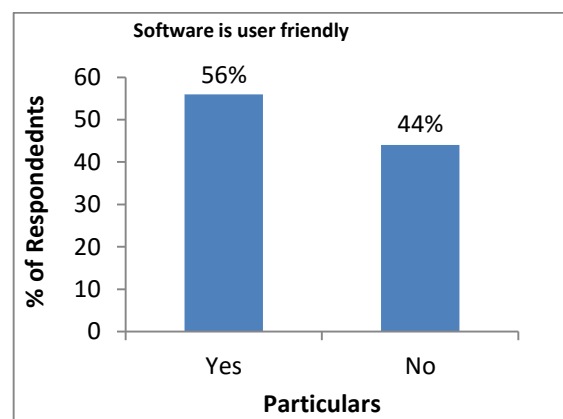


FIG. 2

Interpretation: From the above table we can able to know that 56% of the respondents suggested that the software is user friendly and 44% of the respondents suggested that the software is not user friendly.

3) Complaints regarding the loading of pay sheet into prime

Particulars	No. of Respondents	Percentage
Satisfied	20	40
Neutral	15	30
Dissatisfied	15	30
Total	50	100

TABLE 3

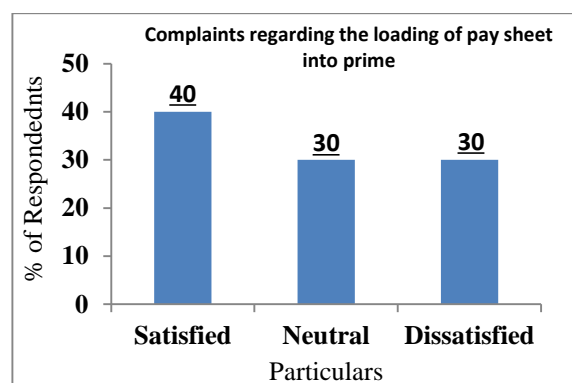


FIG. 3

Interpretation: From the above table we can able to know that 40% of the respondents are satisfied with the complaints regarding the loading of pay sheet into prime and 30% of the respondents are neutral with the complaints regarding the loading of pay sheet into prime and 30% of the respondents are dissatisfied with the complaints regarding the loading of pay sheet into prime.

4) Complaints regarding the loading of pay sheet into prime

Particulars	No. of Respondents	Percentage
Yes	33	66
No	17	34
Total	50	100

TABLE 4

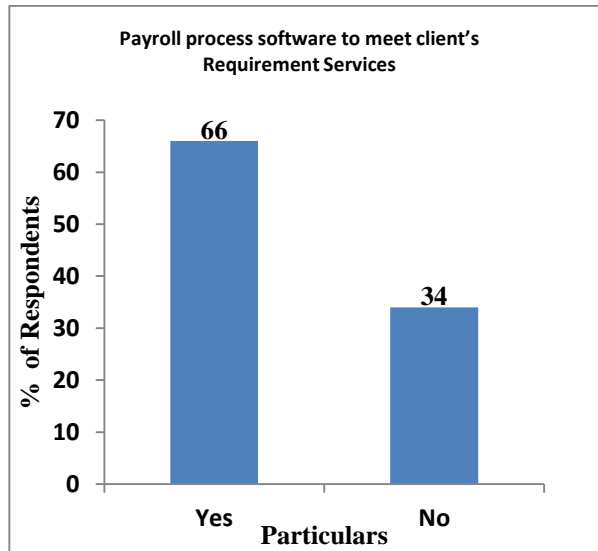


FIG. 4

Interpretation: From the above table we can able to know that 66% of the respondents were defined about its payroll process software by the organization to meet client's requirements services and 34% of the respondents were not defined about its payroll process software by the organization to meet client's requirements services.

5) Satisfaction level with the PF Calculation Software

Particulars	No. of Respondents	Percentage
Satisfied	18	36
Neutral	22	44
Dissatisfied	10	20
Total	50	100

TABLE 5

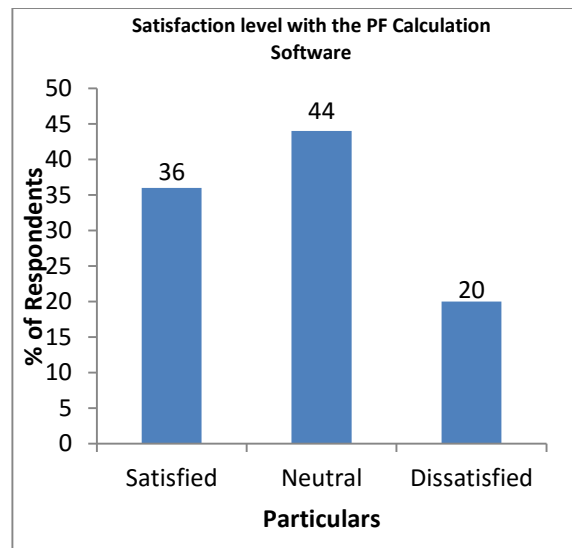


FIG. 5

Interpretation: From the above table we can able to know that 36% of the respondents are satisfied with the software to calculating PF and 44% of the respondents are neutral with the software to calculating PF and 20% of the respondents are dissatisfied with the software to calculating PF.

6) Delivery of Payroll Report

Particulars	No. of Respondents	Percentage
Satisfied	23	46
Neutral	17	34
Dissatisfied	10	20
Total	50	100

TABLE 6

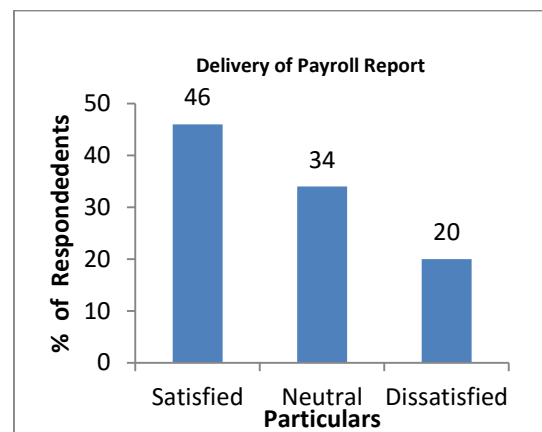


FIG. 6

Interpretation: From the above table we can able to know that 46% of the respondents are satisfied with payroll report and 34% of the respondents are neutral with the satisfied with payroll report and 20% of the respondents are dissatisfied with the satisfied with payroll report.

7) Whether complaints are rectified by the organization

Particulars	No. of Respondents	Percentage
Yes	31	62
No	19	38
Total	50	100

TABLE 7

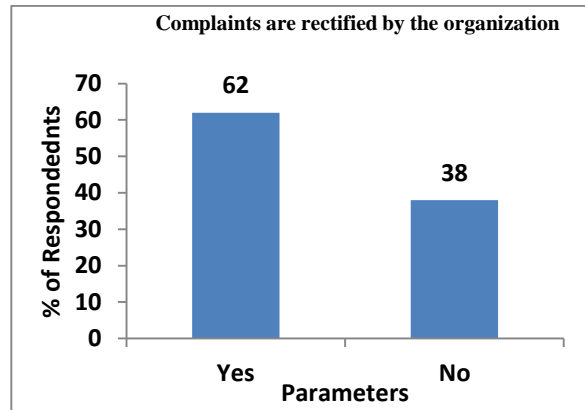


FIG. 7

Interpretation: From the above table we can able to know that 62% of the respondent’s complaints are rectified by the organization and 38% of the respondent’s complaints are not rectified by the organization

8) Payment Mode

Particulars	No. of Respondents	Percentage
Cash	0	0
Cheque	0	0
Bank	50	100
Total	50	100

TABLE 8

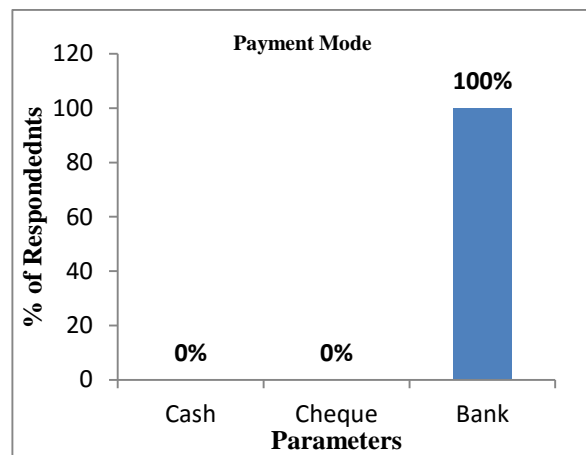


FIG. 8

Interpretation: From the above table we can able to understand that all the employees in the South Central Railways are paid though the mode of Bank

9) Whether employees finds it easy to understand the payroll report

Particulars	No. of Respondents	Percentage
Satisfied	33	66
Neutral	12	24
Dissatisfied	5	10
Total	50	100

TABLE 9

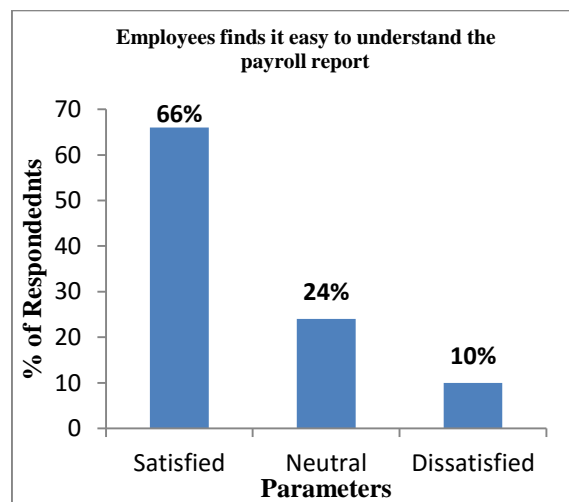


FIG. 9

Interpretation: From the above table we can able to know that 66% of the respondents find the payroll report to be easy and simple to understand and 24% of the respondents find the payroll report to be little difficult to understand and 10% of the respondents find the payroll report to be very complicated to understand.

10) Employee’s opinion about the payroll report

Particulars	No. of Respondents	Percentage
Very good	14	28
Good	20	40
Normal	10	20
Poor	6	12
Total	50	100

TABLE NO. 10

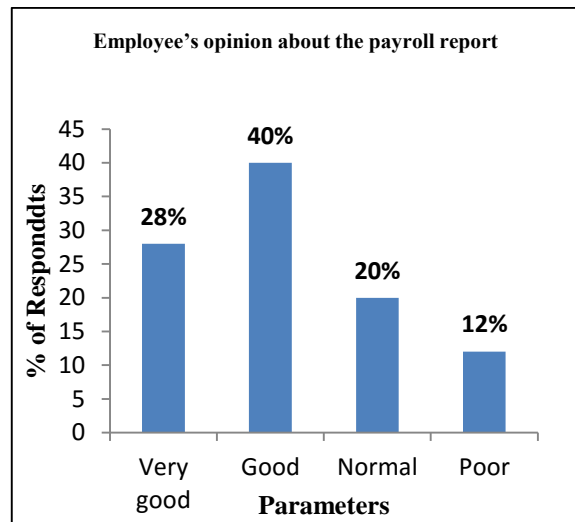


FIG. 10

Interpretation: From the above table we can able to know that 28% of the respondents suggested that payroll report is very good and 40% of the respondents suggested that payroll report is good and 20% of the respondents suggested that payroll report is normal and 12% of the respondents suggested that payroll report is poor.

11) Employees pride feel towards the work

Particulars	No. of Respondents	Percentage
Yes	47	94
No	3	6
Total	50	100

TABLE 11

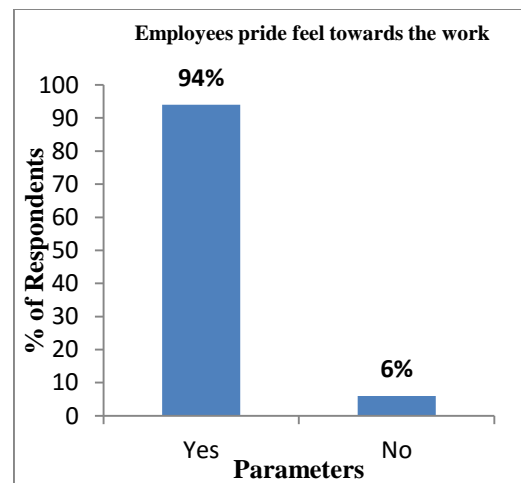


FIG. 11

Interpretation: From the above table we can able to know that 94% of the respondents feel pride to work for the organization and 6% of the respondents doesn’t feel pride to work for the organization

12) Whether employees satisfaction level with salary package?

Particulars	No. of Respondents	Percentage
Satisfied	36	72
Neutral	14	28
Dissatisfied	0	0
Total	50	100

TABLE 12

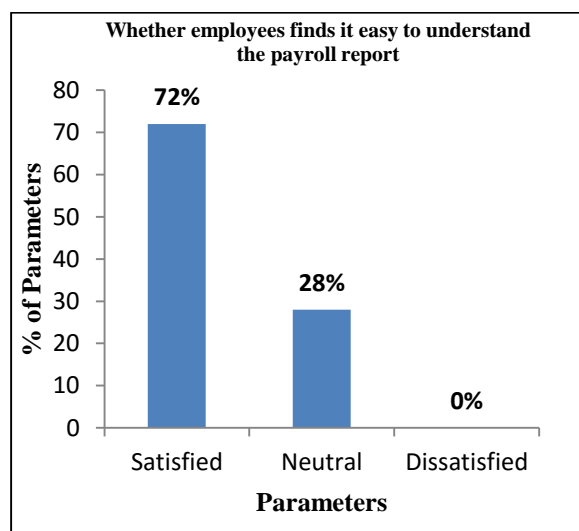


FIG. 12

Interpretation: From the above table we can able to know that 72% of the respondents are satisfied with their salary package and 28% of the respondents are neutral with their salary package

13) Employee’s satisfaction with the functions of co-operative society

Particulars	No. of Respondents	Percentage
Yes	28	56
No	22	44
Total	50	100

TABLE 13

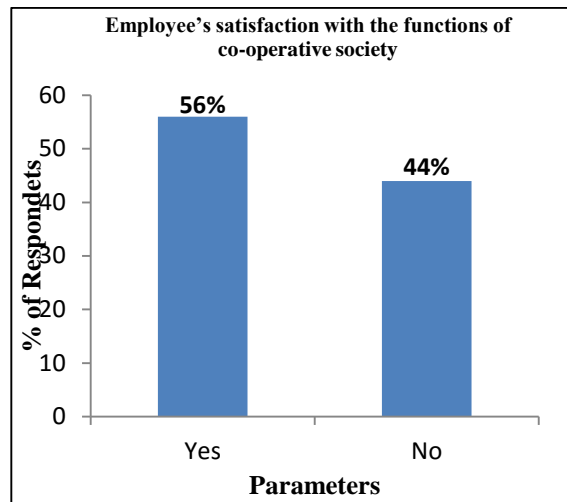


FIG. 13

Interpretation: From the above table we can able to know that 54% of the respondents are satisfied with the functions of co-operative society and 44% are not satisfied with the functions of co-operative society.

14) Employee’s satisfaction level with the facilities provided by the Company

Particulars	No. of Respondents	Percentage
Yes	40	80
No	10	20
Total	50	100

TABLE 14

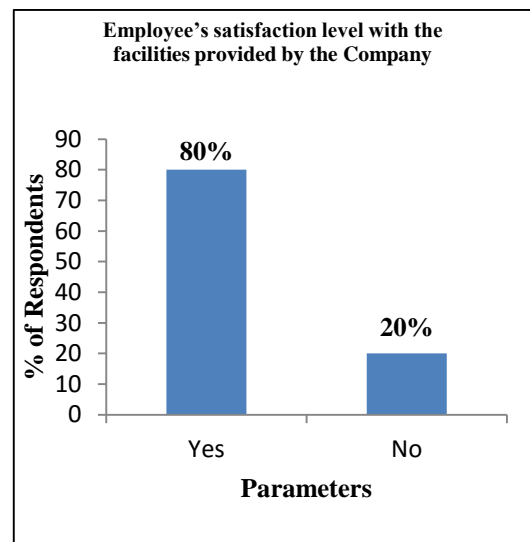


FIG. 14

Interpretation: From the above table we can able to know that 80% of the respondents are satisfied with the facilities provided by the company and 20% are not satisfied with the facilities provided by the company.

4. FINDINGS

- Being a government organization, the reservation policy as per the government directions issued from time to time is meticulously followed in railways.
- The payroll process has online access and reporting capability.
- This payroll process provides Security, Access and Control as required by different user groups
- In order to promote saving attitude, co-operative society is working.
- This payroll process helps in integration of payroll related functions in single system. The payroll process helps two-way communication with end-users and allowing room for employees to verify, request for updates for any data mismatch or errors in pay-slip. The payroll process used in railways is satisfactory and also user friendly.
- Most of d employees feel that payroll reports are easy to understand.
- The employees feel proud to work in railways.

5. SUGGESTION

- Railways need to draw up a fully-fledged IT policy, implementation plan, adequate documentation and security policy in respect of application systems and physical storage of data.
- Railways need to strengthen the standards of IT control such as segregation of duties, logical access controls and change management control.
- PRIME system ensures that changes in salary like increments, promotions, reversions, recoveries, and etc are taken effect as soon as the event happens.
- Railway administration should bring out a proper plan including fixation of a suitable target date so that PRIME can be implemented with proper validation checks in a properly controlled environment.
- The application PRIME should be modified and upgraded to include additional data validations in order to eliminate the drawbacks pointed out in the system.

6. CONCLUSION

Railways maintain the huge level of manpower for good service. As far the payroll management is concerned they follow all the rules and regulations framed by the government under various act and regulations. Though PRIME met the Railway’s objectives partially, the application did not conform to normal standards of good IT practices. The application software has been developed without taking into account important conditions governing the calculations of pay, allowances,

advances etc. Controls to ensure transparency and integrity of the database are also lacking in the system. Since the system is run in poorly controlled environment within adequate documentation and has major deficiencies regarding restricting the processing of pay, allowances, advances and recoveries in consonance with relevant rules, the risk of reliance upon the system in its present form was high. Absence of proper security policy and access control mechanisms coupled with absence of audit trail makes the system vulnerable to manipulation. From the study i found that most of the employees are satisfied with the payroll system due to timely pay. Railways providing more social security for the employees family members in terms of medical facility and pension plan. Finally i conclude that every employee feels proud to work in railways and I am very thankful for giving this opportunity to do my project in this organization.

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COMPARATIVE FINANCIAL STATEMENT ANALYSIS OF DR. REDDY'S LABORATORIES AND CIPLA LTD.

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ABSTRACT

Finance is very essential for the smooth running of the business. Finance controls the policies, activities and decision of every business. The purpose of financial statement analysis is to examine past and current financial data so that a company's performance and financial position can be evaluated and future risks and potential can be estimated. Financial statement analysis can yield valuable information about trends and relationships, the quality of a company's earnings, and the strengths and weaknesses of its financial position. Through a careful analysis of its financial performance, the organization can identify opportunities to improve performance of the department or organization. In this context an attempt has been made to compare and analyze the financial performance of Cipla Ltd & Dr.Reddy's laboratories Ltd to understand how management of finance plays a crucial role in the growth. The study aims to analyze and compare the financial statements of both Cipla Ltd & Dr.Reddy's laboratories Ltd from the year 2010- 2011 to 2014-2015. The tool used for this study is ratio analysis, t-test and trend analysis. Analysis of liquidity measures indicates that current ratio has been good and shows a satisfactory position. It is noticed that Dr. Reddy's Laboratories is better in liquidity position when compared that of Cipla Ltd. Analysis of debt management measures, that debt gearing ratio indicates Cipla Ltd is more risky than Dr. Reddy laboratories Ltd. The study concludes that Dr. Reddy Laboratories is the best performer when compared to Cipla Ltd.

KEYWORDS

comparative financial analysis, investment position, liquidity, pharmaceutical and share capital.

INTRODUCTION

The Indian Pharmaceutical industry is in the front rank of India's science based industries with wide ranging capabilities in the complex field of Drug manufacture and technology. Pharmaceutical Industry in India is one of the largest and most advanced among the developing countries. The growth of the pharmaceutical industry in India is quite phenomenal.

Finance is very essential for the smooth running of the business. Finance controls the policies, activities and decision of every business. The purpose of financial statement analysis is to examine past and current financial data so that a company's performance and financial position can be evaluated and future risks and potential can be estimated. Ratios are additional tools for analyzing financial statements. Comparative statements are more significant for evaluating a company than the single-year statements.

REVIEW OF LITERATURE

- The work of **Keshab Das (2003)⁴ on TRIPS** and its political implication has been referred by the researcher to get the insights into the matter.
- **Professor Robert Tancer (1999)³** has worked on Indian Pharmaceutical Industry as an investment destination. Robert Warren has worked for the pharmaceutical industry.
- **Dr. Akhileshwar Sharma on the topic "Profitability Analysis of Drugs and Pharmaceutical Companies in India" in May (1992).**²This study tried to find out the profitability position of various selected units during that period of time using several criteria.
- The study was emphasized on the working capital management, entitled "**Working Capital Management of Pharmaceutical Industry in India**" by **Dr. Shashi A. Jain in the year (1990).**¹The study tried to make an in-depth analysis of the working capital management of the selected pharmaceutical companies for a period of time.

STATEMENT OF THE PROBLEM

Financial performance analysis is the process of determining the operating and financial characteristics of a firm from accounting and financial statements. The ability of an organization to analyze its financial position is essential for improving its competitive position in the market place. Through a careful analysis of its financial performance, the organization can identify opportunities to improve its performance. In this context an attempt has been made to compare and analyze the financial performance of Cipla Ltd & Dr.Reddy's laboratories Ltd to understand how management of finance plays a crucial role in the growth.

OBJECTIVES OF THE STUDY

The study has the following objectives.

- To analyze the short term financial position of Cipla Ltd &Dr. Reddy's laboratories Ltd for a selected period.
- To analyze the long term financial position of Cipla Ltd &Dr. Reddy's laboratories Ltd for a selected period.
- To project the share capital and investment position of CiplaLtd &Dr. Reddy's laboratories Ltd.
- To compare the financial position of both CiplaLtd &Dr. Reddy's laboratories Ltd.

SCOPE OF THE STUDY

The study covers almost the entire area of the financial operations. The study aims to analyze the comparative financial statement of both Cipla Ltd &Dr.Reddy's laboratories Ltd from the year 2010- 2011 to 2014-2015. The tool used for this study is ratio analysis, t-test and trend analysis. The financial records of these companies is obtained from company's annual report.

HYPOTHESIS

1. There is no significant difference between Dr.Reddy and Cipla ltd regarding current ratio.

2. There is nosignificant difference between Dr.Reddy and Cipla ltd regarding Quick ratio.
3. There is nosignificant difference between Dr.Reddy and Cipla ltd regarding Absolute liquid ratio.
4. There is no significant difference between Dr.Reddy and Cipla ltd regarding Debt Equity ratio.
5. There is no significant difference between Dr.Reddy and Cipla ltd regarding Debt to assets ratio.
6. There is no significant difference between Dr.Reddy and Cipla ltd regarding Equity ratio.
7. There is no significant difference between Dr.Reddy and Cipla ltd regarding Current assets to equity ratio.
8. There is no significant difference between Dr.Reddy and Cipla ltd regarding Capital gearing ratio.

RESEARCH METHODOLOGY

Secondary data has been collected from various journals and websites like moneycontrol.com, bseindia.com and Cipla Ltd and Dr. Reddy’s laboratories websites.

➤ **PERIOD OF THE STUDY**

A period of 5 years from (2010-2011) to (2014-2015) has been covered for the study.

➤ **TOOLS USED FOR THE STUDY**

The following tools have been applied in the study

➤ **RATIO ANALYSIS**

➤ **t-TEST FOR EQUALITY OF MEANS ANALYSIS**

➤ **TREND ANALYSIS**

ANALYSIS AND FINDINGS

RATIO ANALYSIS

TABLE - 1: SHORT TERM RATIOS

Year	Dr. REDDY			CIPLA LTD.		
	Current ratio	Quick ratio	Absolute liquid ratio	Current ratio	Quick ratio	Absolute liquid ratio
2014-15	3.48	2.66	0.43	2.45	0.96	0.04
2013-14	3.41	2.61	0.33	2.62	1.08	0.03
2012-13	2.50	1.79	0.42	2.96	1.27	0.08
2011-12	2.36	1.60	0.49	2.85	1.32	0.05
2010-11	1.93	1.22	0.04	2.95	1.35	0.07

Source: Computed data

- The results of ratio analysis revealed that the current ratio has been good and shows a satisfactory position in both the companies. Dr.Reddy’s Laboratory’s Quick ratio (2.66) is higher than Cipla Ltd (0.96) during 2014-2015. So short term liquidity is higher in Dr.Reddy’s Laboratory when compared to Cipla Ltd.In Absolute liquid ratio, Dr.Reddy’s Laboratories (0.43) is higher than Cipla Ltd (0.04) during 2014-2015. Liquidity position is good in Dr.Reddy’s Laboratories when compared to Cipla Ltd.

TABLE - 2: LONG TERM RATIOS

Year	Dr.REDDY				CIPLA LTD			
	Debt equity ratio	Debt to assets ratio	Equity ratio	Capital gearing ratio	Debt equity ratio	Debt to assets ratio	Equity ratio	Capital gearing ratio
2014-15	0.29	0.23	0.01	106.50	0.12	0.11	0.01	239.69
2013-14	0.29	0.22	0.01	65.46	0.09	0.08	0.01	0.00
2012-13	0.20	0.17	0.01	24.26	0.11	0.10	0.02	16.92
2011-12	0.23	0.19	0.01	169.60	0.00	0.00	0.02	16.06
2010-11	0.24	0.19	0.01	282.00	0.07	0.06	0.02	54.43

Source : Computed data

- Dr. Reddy’s Laboratories highest debt equity ratio of 0.29 is found in the year 2014-15. The value of debt equity ratio is constant for two years and shareholders fund is more than that of total debt indicating much satisfactory position.
- In the year 2014-2015 Dr. Reddy’s Laboratories debt to asset ratio is 0.23 and in Cipla Ltd, the ratio is 0.11.
- In Equity or Proprietary ratio of Dr.Reddy’s Laboratory is constant for all the five years but in Cipla Ltd the ratio is 0.2 for three years 2012-13,2011-12,2011-10.
- In the year 2014-2015 the capital gearing ratio is 106.50 and in Cipla Ltd the ratio is 239.69. Thus Cipla Ltd is highly geared when compared to Dr.Reddy’s Laboratories.

t-TEST

T-Test for equality of means has been applied to check the difference in ratios between Dr.Reddy and Cipla Ltd. Null hypothesis has been framed to test the significant difference in the ratios between Dr.Reddy and Cipla Ltd.

H₀ = “There is no significant difference between Dr.Reddy and Cipla Ltd regarding various ratios”

TABLE- 3: t-TEST FOR EQUALITY OF MEANS FOR EQUALITY OF MEANS

Ratios	T	Df	Sig. (2-tailed)	Significance
Current ratio	-.094	8	.928	Not Significant
Quick ratio	2.651	8	.029	Significant
Absolute liquid ratio	3.589	8	.007	Significant
Debt Equity ratio	6.211	8	.000	Significant
Debt to assets ratio	5.859	8	.000	Significant
Equity ratio	-2.449	8	.040	Significant
Current assets to equity ratio	3.715	8	.006	Not Significant
Capital gearing ratio	1.013	8	.341	Not Significant

Level of significance = 0.05

- The t-test result shows that there is significant difference between Dr.Reddy and Cipla Ltd regarding Quick ratio, absolute liquid ratio, debt equity ratio, debt to assets ratio and equity ratio. There is no significant difference between Dr.Reddy’s Laboratories and Cipla Ltd regarding current ratio, current assets to equity ratio and capital gearing ratio.

TREND ANALYSIS

Trend analysis is the method of analyzing financial position of a business on the basis of changes in the items of financial statement of successive years in comparison to a specific date or period of commencement of study.

TABLE - 4 : SHARE CAPITAL

Dr. REDDY			CIPLA LTD		
Year	Actual value	Trend value	Year	Actual value	Trend value
2011	84.6	84.62	2011	160.58	160.58
2012	84.8	84.78	2012	160.58	160.58
2013	84.9	84.92	2013	160.58	160.58
2014	85.1	85.07	2014	160.58	160.58
2015	85.2	85.21	2015	160.59	160.59
2016		85.36	2016		160.59
2017		85.50	2017		160.59
2018		85.65	2018		160.60

Source: Computed data

DR.REDDY'S LAB: The share capital in the year 2010-11 is 84.6 crores and it has been increased to 85.2 crores in the year 2014-15. The trend value for the years 2011-12 and 2013-14 are less than the actual value of share capital. It shows the satisfactory trend in these periods. While the trend value of share capital is more than the actual value in the periods 2010-11, 2012-13 and 2014-15. In case of future prediction, the estimated share capital amounts to 85.36 crores in the year 2015-16, 85.50 crores in the year 2016-17 and 85.65 crores in the year 2017-18.

CIPLA LTD: The share capital in the year 2010-11 is 160.58 crores and it has been increased to 160.59 crores in the year 2014-15. The trend value and actual value are the same for the years 2010-11 to 2014-15 indicating fair position in these periods. In case of future prediction, the estimated share capital amounts to 160.59 crores in the year 2015-16, 160.59 crores in the year 2016-17 and 160.60 crores in the year 2017-18.

TABLE - 5: INVESTMENTS

Dr. REDDY			CIPLA LTD.		
Year	Actual value	Trend value	Year	Actual value	Trend value
2011	2,462.00	2171.66	2011	570.65	392.59
2012	2,477.70	2368.46	2012	1,035.15	1346.66
2013	2,379.20	2717.62	2013	2,601.82	2469.86
2014	2,806.50	3167.24	2014	3,587.13	3473.22
2015	3,862.30	3693.47	2015	4,421.10	4457.40
2016		3976.41	2016		5504.80
2017		4442.16	2017		6541.53
2018		4876.86	2018		7541.84

Source: Computed data

The above table shows the Investments from the year 2010-11 to 2014-15 and trend value estimated from the year 2010-11 to 2017-2018 for Dr.Reddy and Cipla Ltd.

DR. REDDY'S LAB: The Investments in the year 2010-11 is 2462.0 crores and it has been increased to 3862.30 crores in the year 2014-15. The trend value for the years 2011-12 and 2013-14 are less than the actual value of investment. It shows the satisfactory trend in these periods. While the trend value of investment is more than the actual value in the periods 2010-11, 2012-13 and 2014-15. In case of future prediction, the estimated investment amounts to 3976.41 crores in the year 2015-16, 4442.16 crores in the year 2016-17 and 4876.86 crores in the year 2017-18.

CIPLA LTD.: The Investments in the year 2010-11 is 570.65 crores and it has been increased to 4421.10 crores in the year 2014-15. The trend value and actual value are the same for the years 2010-11 to 2014-15 indicating fair position in these periods. In case of future prediction, the estimated investment amounts to 5504.80 crores in the year 2015-16, 6541.53 crores in the year 2016-17 and crores7541.84 in the year 2017-18.

SUGGESTIONS

- Dr. Reddy's liquidity position is very high which indicates that there is requirement of diversion of liquid assets into very short term investment and income can be generated from such investment.
- Cipla Ltd's equity ratio is appropriate but its constancy should be maintained.
- Cipla Ltd is found to be more geared as it employs more debt to finance its operations than Dr. Reddy. As such Cipla Ltd makes a lot of interest expense and is expose to higher risk in economic down turn than Dr. Reddy
- Overall performance of Dr. Reddy Laboratories is reported best when compared to Cipla Ltd, therefor Cipla Ltd has to improve its overall performance to meet the competition.

CONCLUSION

The Indian pharmaceuticals market is the third largest in terms of volume and thirteen largest in terms of value. The top ten companies including Cipla, Dr. Reddys Labs, Lupin, Aurobindo Pharma, Cadila Health, Glenmark, Torrent Pharma, GlaxoSmithKline, Jubilant Life, Ipca Labs. Dr. Reddy's Laboratories and Cipla Ltd occupy 70% to 80% of the Indian pharmaceutical market space.

Analysis of liquidity measures indicates that current ratio has been good and shows a satisfactory position. Quick and cash ratio measures that Dr. Reddy's pharmaceutical company is better than Cipla Ltd. So it is noticed that Dr. Reddy's Laboratories is in better condition of liquidity position compared that of Cipla Ltd.

Analysis of debt management measures, that debt gearing ratio indicates Cipla is more risky than Dr. Reddy Lab.

It is concluded that Dr. Reddy Laboratories is the best performance compared to Cipla Ltd.

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INVESTORS' EDUCATION & AWARENESS - ROLE OF VARIOUS STAKE HOLDERS

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ABSTRACT

The role of capital markets is vital for inclusive growth in terms of wealth distribution and making capital safer for investors. To make the capital market safer for investors, it is required to educate and make aware the investor about financial literacy and various developments that have been taking place in capital market. In this regard, this paper will make an attempt to help to understand the current ecosystem with respect to investor awareness and education; it will examine the role of the various stake holders in the process of investor education and awareness.

KEYWORDS

investors education, awareness, stake holders.

INTRODUCTION

As capital markets develop and the regulatory environment becomes more vibrant, that is to say that the structural issues that plague markets in nascent stages of their growth and modernization have been dealt with and change is more a process of up-gradation rather than modernization, it becomes important to address more sophisticated issues that plague the market and also grow its base of investors.

India has always been a nation of savers but for the growth of the economy it is important to channel these savings into productive capital via capital markets. While volumes in daily trading of Indian markets have grown substantially over the last two decades, it is largely from derivative trading that this growth has been derived. New capital formation is dependent on participation of investors in the primary market. By converting a larger share of these retail savings in to capital investment – whether directly or indirectly – will help in not only contributing towards capital formation but also providing a type of financial buffer or retirement plan for investors. An interesting by-product of this type of contribution by retail participants could be a reduced dependence and deepening of the capital markets on foreign institutional investors for its growth and development. Many proponents also feel that retail participation also leads to a better regulatory and disclosure regime. This is obviously based on the assumption that institutional investors by their very nature are not only better informed but also better equipped to protect themselves.

A recent report released by McKinsey and Co. states that Indian households invest much less in equity markets than do their developed market counterparts, particularly in the United States and the United Kingdom. As a result, retail equity ownership (non-promoter) amounts to only around 10 per cent of total equity ownership, and has come down by 3 per cent over the last seven years. It was also noted that there exists a problem of dominance of top-4 cities in trading volumes: Only four cities, 'Mumbai, Delhi, Ahmadabad and Kolkata' account for 85 per cent of cash trading. Considering the minuscule contribution of the other top-350 urban centers, there is a huge opportunity to deepen the retail investor base in India²⁹.

ROLE OF SECURITIES EXCHANGE BOARD OF INDIA (SEBI)

As the prime regulator of Indian capital markets, SEBI has a huge task set before it when it comes to creating awareness amongst investors about financial products and the ecosystem. With over 1.2 billion people in the country, stakeholders are many, far-flung and highly segmented; each demographic section requires a different approach and every region a specific language.

SEBI's stated objective is to build the capacity of investors through education and awareness to enable investors to take informed investment decisions. SEBI has been organizing investor education and awareness workshops directly and through investor associations and market participants; and has been encouraging market participants to organize similar programmes. It maintains an updated, comprehensive website for education of investors. It publishes various kinds of cautions through media. It responds to the queries of investors through telephone, e-mails, letters, and in person for those who visit SEBI office.³⁰

SEBI has recognized the need for appropriate disclosures in order to increase investor awareness; making it mandatory for issuers and intermediaries to make public any relevant information so that investors may take informed decisions. Decreasing settlement periods, making price discovery more transparent via the introduction of screen based trading complemented by the dematerialization of securities are reforms that have gone a long way to make investors more comfortable with equity markets. In order to increase awareness amongst investors about financial markets and products, SEBI has designed different campaigns for different target demographic groups and in relevant regional languages as captured in the table on the next page. Apart from the publication of investor education material such as booklets and presentations, SEBI also conducts a number of workshops to actively engage new participants into the market. According to its website, since 2010, a total of 6,095 workshops have been conducted by its appointed resource persons and another 256 engagements had been planned for the rest of the calendar year 2012-13.³¹ Its board has empanelled approximately 484 resource persons to further the task of investor awareness in addition to its own efforts in this field.

One of the most interesting programmes and perhaps one with most long term potential to bring about change is the financial literacy programme aimed at school going children called 'Pocket Money'. This financial literacy initiative amongst others is being promoted by the National Institute of Securities Markets, established by SEBI in 2010 in order to focus on increasing investor education and providing formal certifications to participants. According to Mr Anant Barua, the Pocket Money programme which educates students by training teachers has covered 5,783 students from 256 schools across the country. This programme aims to teach students basic principles like saving, financial planning and budgeting along with the pros and cons of basic investment options. The programme is divided into 3 stages, the first being teacher training, the second is student enrolment and classes which culminates into the third stage viz. a certification exam conducted by NISM. Additionally, SEBI has trained 238 teachers and 14,550 students through the Meljol programme in 2009-10 which covered 197 schools.

A number of these investor outreach initiatives are also delivered for SEBI by empanelled NGOs, investor associations, industry bodies, institutions and resource persons. Simpler solutions such as help lines and email addresses for investor queries have also been set up. SEBI has a dedicated website which contains the relevant information for investors.³² The board has also articulated a media plan in order to disseminate information on financial markets to the masses in English, Hindi and 12 other regional languages. In 2011, SEBI articulated a 3 pronged approach in order to disseminate awareness about financial markets:

- Print: Newspaper advertisements in non-financial dailies
- Television: 30 second slots in prime time on TV channels
- Radio: Audio slots through radio, including FM channels³³

²⁹ Capital Markets 2020: Going for 3X by McKinsey and Co.

³⁰ <http://investor.sebi.gov.in/oiae.html>

³¹ <http://investor.sebi.gov.in/feworkshops.html>

³² <http://investor.sebi.gov.in>

³³ Strategic Plan for 2011 - SEBI

These initiatives have been developed with the help of market participants such as exchanges, depositories and Mutual Fund houses. The regulator has earmarked about Rs 12 crore for the media campaign and investor awareness programmes for 2011-12. In the past, the Reserve Bank of India has regularly used the print and electronic media to alert the public about various fictitious schemes and fake currencies.³⁴ As of August 2012, the board had shortlisted 13 ad agencies to assist them in their efforts and design a media plan. Although there are proposed plans to have audio-visual films covering subjects like investing in primary and secondary market, rights of investors and mutual fund investments; these are not available on SEBI's website.

Although SEBI regularly tracks the number of programmes conducted in the country, there is little being done by the way of measuring impact of these programmes or even the increase in investor awareness and confidence or education levels over time. Certificate courses offered by institutes such as NISM can obviously be tracked quantitatively by way of students enrolled and degrees awarded but the level of investor awareness is a much more nuanced and qualitative subject. As SEBI tries to increase the size and strength of its physical outreach, it would also be important to understand the effectiveness of these programmes.

The costs of these programmes are borne by SEBI under the Investor Protection and Education Fund established in 2001, seeded with an investment of Rs.10 crore. This fund is also the beneficiary of amounts which have remained unclaimed and unpaid for a period of seven years from the date they became due for payment such as unpaid dividend accounts of the companies, matured debentures, grants and donations by the Central Govt., State Govt., companies or any other institutions etc. and contributions from the market participants themselves.

ROLE OF RESERVE BANK OF INDIA

In the context of investor awareness, education and protection, the RBI has a pivotal role to play due to its authority over the banking system. It is currently running a project known as 'Project Financial Literacy', the objective of the mission is to spread information and awareness regarding banking, personal finance and operations of the central bank to various sections of society that may otherwise remain unaware about these subjects. The project has been designed to be implemented in two modules, one module focusing on the economy, RBI and its activities, and the other module on general banking. The material is created in English and other vernacular languages. It is disseminated to the target audience with the help of banks, local government machinery, schools and colleges through presentations, pamphlets, brochures, films and also through RBI's website. These are in the form of comic books for school kids, puzzles and also films that can be viewed on its website. The RBI is also trying to engage school-going children directly by involving them in essay writing competitions where they stand to win prizes. The RBI's approach to financial education is in line with those of many other countries which, especially since the beginning of this century have realised the full potential of spreading financial literacy through national projects. Given the large number of stakeholders, including the Central and State governments, banks and financial institutions, a coordinated national project will be beneficial

THE ROLE OF STOCK EXCHANGES

THE NATIONAL STOCK EXCHANGE OF INDIA (NSE)

The most recent events conducted by the NSE to create investor awareness were

- The Investothon
- The Sealdah Rajdhani campaign

The Investothon is conducted by the NSE jointly with the business news channel CNBC TV18 and was started in March 2011 in Mumbai to promote health, wealth and investor awareness in Mumbai, Delhi, Ahmedabad and Chennai with more than 4,000 investors and corporates participating in each of the initiatives.³⁵

The Sealdah Rajdhani Express is an interesting initiative launched by the NSE as part of its 'Financial Literacy on Wheels' campaign. The Sealdah Rajdhani, which runs through key states like Uttar Pradesh, Bihar and Jharkhand, ends its journey at the Sealdah station, one of the busiest stations in India, which also has a suburban rail terminal. The 14 coaches of the train will carry Nifty images on the train, with panels inside on the precautions an investor should take before, during and after trading. Audio messages will also play inside the coaches, throughout the 17 hour journey from Delhi to Sealdah and on the return journey. The Sealdah Rajdhani campaign continues to build on a seamless link that was first started in April, when an awareness drive was begun on the Rajdhani trains from Delhi to the Southern cities of Chennai, Trivandrum and Bangalore.³⁶ Following the successful implementation of this campaign, the NSE replicated this effort with the Delhi Metro Rail Corporation during the recently conducted Commonwealth Games in the city. While this is no doubt a novel idea, its effectiveness and reach needs to be examined in further detail. Additionally, the NSE as a part of its mandate also tries to spread investor awareness through its member-brokers and works closely with the Ministry of Corporate Affairs to coordinate their efforts.

ROLE OF BOMBAY STOCK EXCHANGE (BSE)

The BSE as part of its mandate conducts a number of Investor Awareness and education programmes. These investor awareness programmes are hosted in conjunction with other market participants such as Mutual Funds, CDSL and member brokers. The Investor Awareness Programmes cover topics like rights of investors, different instruments being traded on the exchange, the concept of portfolio building, distinction between trading and investing, the value of mutual funds, the process of trading i.e. how trades are cleared and settled, why dematerialization is important for investors, safety of transactions on the exchanges along with the means of redressal for the investors. These programmes aim to make investors more confident while interacting with intermediaries and also help them understand the terminology that may be used, for many investors, markets are like a black box and most are unsure of what happens to their funds once they have been invested into any share or mutual funds.

THE MULTI COMMODITY EXCHANGE – STOCK EXCHANGE (MCX- SX)

The MCX-SX is owned by the Financial Technologies group, under whose aegis the Financial Technologies Knowledge Management Company or FTKMC is also run. The FTKMC is a knowledge initiative that has implemented various financial literacy programmes on its 'Knowledge for Markets' platform. These include:

- One-year Diploma in Financial Markets Practice, jointly with Indira Gandhi National Open University (IGNOU)
- International Winter School in Financial Markets Practice, jointly with National Institute of Industrial Engineering (NITIE), Mumbai
- Global Financial Markets Exposure Programme
- National Simulation Lab, a simulated market environment to understand and appreciate the trading in markets in various asset classes
- 'Money Plant', a programme on Doordarshan
- Various certification programmes, including MCX Certified Commodity Professional M CCP
- Short-term training programmes
- Farmers Awareness Programmes along with the Forward Markets Commission (FMC), the commodities market regulator
- 'Markets in Motion', the weekly newsletter
- Periodicals; reviews; insights; and other publications.³⁷
- On the 13th of September 2012, the MCX – SX via its press release announced its intentions to conduct 1,000 in-depth education and training programmes in order to increase awareness and literacy about financial markets amongst the very first batch of 500 trading members.

³⁴ Investor-friendly SEBI to launch ad campaign next month by Samie Modak for Business Standard Jan 25, 2012

³⁵ <http://investothon.moneycontrol.com/>

³⁶ <http://pib.nic.in/newsite/erelease.aspx?relid=66223>

³⁷ <http://www.ftkmc.com/financial-literacy.html>

ROLE OF MINISTRY OF CORPORATE AFFAIRS (MCA)

In its effort to promote investor awareness and protection, it has realized that it is equally important to improve the ecosystem by way of information and competition. It aims to do this by simplifying laws, increasing transparency and disclosure norms and reducing the barriers to entry. The MCA clearly wants to do away with archaic laws that are no longer relevant by trying to update them in accordance with the best practices and informed policy advisory.

INVESTOR EDUCATION AND PROTECTION FUND (IEPF)

The Investor Education and Protection Fund (IEPF) was established under Section 205C of the Companies Act, 1956 by way of Companies (Amendment) Act, 1999 for promotion of investors' awareness and protection of the interests of investors. The IEPF organizes various investor interaction sessions, seminars and workshops as part of its broader mandate to educate investors. The stated objectives of the fund are:

- Educating investors about market operations
- Equipping investors to analyze information to take informed decisions
- Making investors aware about market volatilities
- Empowering the investors by making them aware of their rights and responsibilities under various laws
- Continuously disseminating information about unscrupulous elements and unfair practices in the securities markets and broadening the investors' base by encouraging new investors to participate in the securities market
- Promoting research and investors survey to create a knowledge base that facilitates informed policy decisions

WWW.INVESTORHELPLINE.IN

This was a website that was sponsored by the Ministry of Corporate Affairs until it was discontinued in early 2012. It was an initiative by the MCA to provide a fast and efficient redressal mechanism for investors. According to statistics available on the now defunct website they had received a total of 14,292 complaints in a nearly 6 year period between September 2005 and June 2011, of which 10578 were valid and 10364 were satisfactorily dealt with while 214 were pending.

ROLE OF MUTUAL FUND INDUSTRY

The Association of Mutual Funds of India (AMFI) under the guidance of SEBI has made investor awareness a focus area; they have constituted two committees, one focused on Investor awareness while the other one is known as investor connect. The idea is to understand the problems investors face vis-à-vis mutual fund investments and how they could be resolved. According to the Swarup committee report of 2009, India's investor population has plummeted from 20 million in the 1990s to eight million in 2009. AMFI clearly sees reaching out to investors directly through an investor awareness campaign in the media and by way of promotional events as a potential way to combat the falling interest in mutual funds by distributors and agents. AMFI has also directed its members to hold as many as 5 investor awareness seminars every month⁶¹. All the investor awareness programmes that are approved by AMFI are listed on the website and are hosted by asset management companies in a range of cities and districts across the country. Additionally, each asset management company also runs its own investor awareness initiatives under the same mandate by AMFI and provides educational materials and a schedule of its events on its website.

The Government would also like to popularize mutual funds as an asset class for every level of the Indian population; the Ministry of Finance (MoF) has recently introduced the Rajiv Gandhi Equity Savings Scheme (RGESS) to incentivize retail investors to participate in equity markets. The scheme offers investors who earn up to Rs. 10 lakh per annum, a tax break if they invest up to Rs. 50,000 a year in the scheme. The scheme is quite ambitious in its objectives, i.e. to mobilize part of the savings in Indian households towards equity markets by way of mutual funds as most people in the smaller towns and cities of India are quite uncomfortable with equity investments. Accordingly, the MoF has planned to run an investor awareness and education drive in order to change this perception amongst the retail masses.

CONCLUSION

Capital market is the heart of any economy through which the savings are channelized into effective long-term investments. A developed and vibrant Capital Market will immensely contribute towards speedy economic growth and development and it is possible when there is a substantial participation of investors. Knowledge on financial literacy and awareness on capital markets and its developments will definitely increase this participation. SEBI and other stake holders like RBI, Stock exchanges, AMFI and Ministry of Corporate Affairs are playing a significant role in educating the investors by various means conducting seminars, workshops, through advertisements in media and offering certificate courses etc. However, there is more to be done in this area.

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A LINK BETWEEN POS AND HR PRACTICES: A REVIEW OF LITERATURE

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ABSTRACT

People are the soul of any organization. The integrity of organizations, its drive towards effectively achieving its goal and even its continued existence, all depend entirely on the people that comprise it. Managing and retaining the talented human resource has become the need of the hour. This calls for support, commitment and loyalty from the part of the organization. The concept of POS, thus, is very vital for the success of any organization. Perceived organizational support (POS) refers to "a general perception concerning the extent to which the organization values employees' general contributions and cares for their well-being" (Eisenberger et al., 1990). POS implies the organization's "commitment" to its employees (Johike et al., 2002; Settoon et al., 1996). Many researchers have studied the link between and POS and various HR concepts. This study tries to ascertain the relation between POS and the three HR concepts, namely, Organizational Commitment, Employee Engagement and Work Family Conflict. Employer's or organization's treatment has a great impact on employee perception and it leads employee to treat the organization well in return (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). This give rise to the feelings of commitment and engagement as well as to keep work-family conflict under control. The focus of this study is to link POS and the three concepts through extensive review of the available literature.

KEYWORDS

employee engagement, organizational commitment, perceived organizational support, work family conflict.

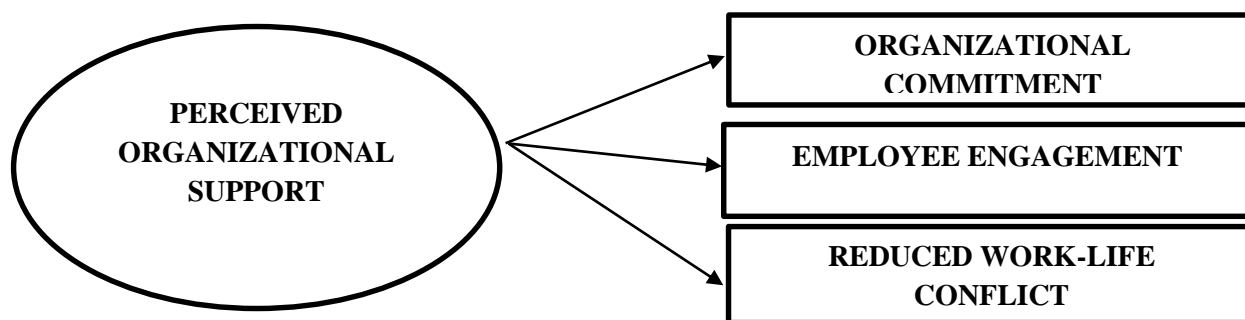
PERCEIVED ORGANIZATIONAL SUPPORT (POS)

Employees are one of the most valuable resources that an organization possess. Organizations expect loyalty, commitment and engagement from the employees that will help in building a successful organization. It is found that employees who are emotionally committed to the organization show heightened performance, reduced absenteeism, and a lessened likelihood of quitting their job (Mathieu & Zajac, 1990; Meyer & Allen, 1997; Mowday, Porter, & Steers, 1982). The support given by the organization to the employees' is the factor that determines the level of commitment and engagement of the employees. the feeling of being supported and valued by the organization gives rise to benefits such as approval and respect, pay and promotion, and access to information and other resources needed to better carry out his/her job efficiently. It is from this feeling that the concept of POS arose and it is an important concept for the organizations. According to Golparvar, Nayeri and Mahdad (2009), the theory of Perceived organizational support was derived from theories related to the relationships between employers and employees, which was based on mutual expectations and obligations. Eisenberger et.al (2002), perceived organizational support (POS) is the degree to which employees believe that their organization values their contributions and cares about their well-being and fulfills socio-emotional needs. This theory states that when the organization values employee's cooperation and efforts and pays attention to their welfare employees feel they are supported by the organization (Eisenberger, and Eder, 2008).

According to Allen and Meyer (1996) organization should show its commitment to the employee to form basis for POS and increase employee pledge, as well as employee belief that his greater effort will be rewarded. This will help build trust in the minds of the employees that the organization will reward them for the hard work they have put in. Organizational support helps to keep employees in the organization. It is a key factor in increasing job satisfaction and the organizational commitment of employees. POS is expressed as a perception of what degree of importance to contribute to employees by the organization. Employees feel that they are supported by the organization because they are valuable to the organization and this will help them to remain attached with the organization.

According to organizational support theory, the development of POS is encouraged by employees' tendency to assign the organization humanlike characteristics (Eisenberger et al., 1986). Because of this, the employees view their favorable or unfavorable treatment as an indication that the organization favors or disfavors them. Another important aspect that have an impact on POS is the support given by the supervisor. This is because supervisors act as organizational agents. If the employee receives favorable treatment from a supervisor, it will undoubtedly contribute to POS. The organizational support theory identifies three forms of perceived favorable treatment received from the organization by the employee. These include: - fairness, supervisor support and organizational rewards and job conditions. These factors are supposed to increase POS. These three factors are considered to be the antecedents of POS. According to Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades (2001), POS should create a felt obligation to care about the organization's welfare. There are several desirable consequences, as well, of POS. These include:- organizational commitment, job involvement, improved performance, reduced stress level, proper balance between work and family and desire to remain with the organization. All these outcomes of POS helps an organization to improve its overall performance, value and to remain competent. The current literature review tries to focus on the relationship between POS and its three outcomes namely, organizational commitment, employee engagement and reduced work-family conflict.

FIG. 1: THE OUTCOMES OF PERCEIVED ORGANIZATIONAL SUPPORT



ORGANIZATIONAL COMMITMENT

Commitment, whether it be from the part of the employer or employee, is very important as far as any organization is concerned. It is one of the most important ingredients to success. It is considered to be a very important and valuable concept for every organization. The concept has been vastly studied and researched upon over years and has been found to be one of the most crucial elements of human resource management that ensures the successful performance of an organization. In the simplest of terms, an employee's affiliation with the organization is considered as organizational commitment. It is the individual's psychological attachment and dedication to the organization for which he/she works. It is the intention to stay with the organization for a long period of time, demonstrating the feeling of dedication, the eagerness and enthusiasm to go the extra mile, all of which are an imperative for the realization of organizational

goals.). Jalonen, et al. (2006) and Wagner (2007) states that Organizational Commitment is concerned with the extent to which an employee identifies with the organization. It is an individual's willingness to dedicate efforts and loyalty to an organization. It is a very desirable behavior in employees that is beneficial for an organization and hence organizations must try to inculcate the feeling of belongingness and provide all support for the employees, which will help them identify with the organization.

Quite a lot of literature is available in the domain of Organizational Commitment. Many researchers have defined the concept of organizational commitment touching upon the various facets of this concept. Brewer (1996) states that Organizational commitment is the loyalty and intention to stay with the organization, besides personal interest towards the employment. It is the degree to which an employee portrays the feeling of loyalty to a particular organization (Mueller et al., 1992; Price, 1997). According to Porter (1974), organizational commitment is the extent to which employees accept the goals and values of the organization and are desirous to remain in the organization. The concept has been further described by Porter et al (1974) as "an attachment to the organization, characterized by an intention to remain in it; an identification with the values and goals of the organization; and a willingness to exert extra effort on its behalf." The most popular and acceptable definition of OC was given by Mowday, Steers and Porter (1979) as OC is "the relative strength of an individual's identification with and involvement in a particular organisation". The studies of Porter, Steers, Mowday and Boulian (1974), looks into the three factors that characterizes commitment. They are, (1) a credence in and acceptance of goals and values, (2) a willingness to put in additional effort, and (3) a yearning to retain membership. Not only does organizational commitment boost the intention of the employees to exert extra effort for the benefit of the organization, but also ensures that the human resource, the most vital asset, is retained within the organization.

Having a highly committed workforce is an essential requirement for an organization as it gives them a competitive edge over the others. According to Sezgin (2009), a committed employee is said to be one who remain with the organization through all its different phases, attends work regularly, does every day's work dutifully, and shares the vision and goals of the company and so on. It tests the relations, behaviors and performance of employees at the workplace. Committed employees ensure their employer's success at any cost and hence such employees are highly desired by the organizations. They also adhere to their employer for a long period. Studies conducted by Hunt and Morgan (1994), Robbins and Coulter (2003), Mowday, Steers, & Porter (1982) points to the fact that, committed employees show strong intentions to serve their organizations and are low at intentions to leave. Committed employees exhibit strong intentions to work for their employer and very rarely think about leaving the organization. (Hunt and Morgan, 1994; Robbins and Coulter, 2003; Mowday, Steers, & Porter, 1982). The reason behind this is, they strongly identify with the organization for which they work and share its values and tenets and are also keen to take up responsibilities that are beyond their job duties. They exhibit greater organizational citizenship behavior giving organizations their much needed competitive advantage.

The idea of commitment is now widely applied in organizations to build a strong bond between the employees and the organization which, by all means, will benefit both the parties. Organizational commitment plays an elementary role in building and maintaining the relationship between individuals and organizations. It is widely seen to be strengthening the bond between the individual and organization. Sharma and Bajpai (2010) opines that organizational commitment is widely described as a key factor in the relationship between individuals and organizations. Organizational commitment also has a link with the behavioral aspects of the employees which determines their performance, attitude, interest and so on. Joiner and Bakalis (2006) considers organizational commitment as a very important factor that is linked with absenteeism, work effort and turnover. A number of research studies have been focus on this area as it shows an unfailing relationship with the behavior of the employees mainly performance, turnover and absenteeism (Angel and Perry, 1981; Bluedorn, 1982; Porter and Steers, 1973). Organizational commitment has a very prominent in the study of organizational behavior. This can be equated to the large number of studies that have found relationships among organizational commitment, attitudes, and behaviors in the workplace (Porter et al., 1974; Angle and Perry, 1981).

Becker (1960) and Alluto, Hrebiniak and Alonso (1973) have viewed the concept of organisational commitment from another perspective, that is, the "side-bet" theory. This theory states that individuals strive to hold on to their employer so as to hold on to good positions. The stress and strain that they experience during the period doesn't matter to them. Nevertheless if they are given an alternative, which they find to be more beneficial, they will be ready to leave the organization. Mowday, Porter and Steers (1982, p 26) support this theory by describing organisational commitment as a behavior. According to them, "OC is a process by which individuals become locked in a certain organisation and the way in which they deal with this problem".

THREE COMPONENTS OF ORGANIZATIONAL COMMITMENT

Allen and Meyer, in the 90's, have proposed a three-component model of organizational commitment namely, affective commitment, continuance commitment and normative commitment. The definition of affective commitment as given by Allen and Mayer (1990) is "an affective or emotional attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in, the organization".

Affective commitment shows the degree a person is united with the organization. Continuous commitment describes needs of the individual to continue working for the organization based on perceived expenses related to turnover. Normative commitment describes the degree that an employee believes he/she must be committed to the organization and might be affected by social norms.

(a) affective commitment exists when employees stay with the organization because they want to, (b) continuance commitment exists when employees stay with the organization because they need to, and (c) normative commitment exists when employees stay with the organization because they feel they ought to (Meyer & Allen, 1997). Affective commitment results in better performance and more meaningful contributions, followed by normative commitment, followed by continuance commitment

POS AND ORGANIZATIONAL COMMITMENT

The competitiveness of a firm depends on the competence of its human resource. For this, support from the part of the organization is very essential. The feeling of being valued and rewarded in the organization will make them more relaxed and satisfied and this will make them more emotionally committed towards their organization. Organizational commitment is identified as a factor which support the attachment of an employee with the organization (Mowday, 1998). POS has been assumed to influence employees' general reactions to their job, including job satisfaction (Çakar and Yıldız, 2009), job involvement (George and Brief, 1992) organizational commitment (Eisenberger, Fasolo and Lamastro-Davis, 1990) and intention to leave (Guzzo, Noonan, and Elron, 1994).

Organizational commitment is viewed as a social exchange between employers and employees in which employees draw inferences concerning their organizations' commitment towards them (perceived organizational support), which in turn will contribute to their commitment towards the organization (Eisenberger, Armeli, Rexwinkel, Lynn and Rhoades, 2001). Previous studies conducted on POS and OC have found that there is a positive and statistically significant relationship between perceived organizational support (POS) and organizational commitment (OC) (Eisenberger et al, 1990; Eisenberger et al, 2001; Rhoades et al., 2001; Waynes et al, 1997; Whitener, 2001; Allen, 2001; Bishop, Scott and Burroughs, 2002; Setton, Benett and Liden, 1996; Loi, Hang-yue and Foley, 2006). Organizational commitment is one of the important consequences of POS. High perceived organizational support creates an obligation for employees. Employees with high perceived organizational support feel indebtedness to respond favorably to the organization in the form of positive job attitudes and organizational behaviors and also support organizational goals (Loi, Hang-Yue and Foley, 2006).

Reciprocity and social exchange theory explains the relationship between perceived organizational support and organizational commitment. From the social exchange theory perspective, beliefs underlie employees' inferences concerning their organizations' commitment to them in turn contribute to the employees' commitment to their organizations. Employees contribute to the organization through affective commitment and show greater efforts at work (Eisenberger, Huntington, Hutchinson, and Sowa, 1986; Mowday, Porter and Steers, 1982; Rousseau, 1989). Perceived organizational support increases affective commitment by contributing to the satisfaction of the employees' socio-emotional needs such as esteem, approval and affiliation (Eisenberger, Huntington, Hutchinson, and Sowa, 1986; Fuller, Barnett, Hester and Relyea, 2003). Employees with higher levels of POS are likely to be more committed and possibly more willing to engage in extra role or "organizational citizenship" behaviors (Organ, 1988). Eisenberger, Armeli, Rexwinkel, Lynch and Rhoades (2001) found that POS was positively and directly related to AC, which they attributed to social identification with the organization.

According to the study conducted by Rhoades and Eisenberger's (2002), there is a weak negative relationship between continuance commitment and perceived organizational support. When individuals perceive high level of organizational support, the costs associated with leaving the job will be perceived as less important

than if they thought that they had given a great deal to the organization without having received anything in return (Aube, Rousseau and Morin, 2007). Also, O'Driscoll and Randall (1999) stated that, continuance commitment is more likely to be influenced by perceptions of being poorly treated rather than perceptions of support from the organization.

Several studies were conducted in this area by many researchers. A study conducted by Tansky and Cohen (2001) on POS and OC concludes that employee development activities were positively related to both POS and organizational commitment. In a study conducted by Driscoll and Randall (1999) on employees from dairy cooperatives, it was found that the belief that organization supports and values their contribution increased their attachment to their organization. Eisenberger and Rhoades (2002) examined the effect of the perceived organizational support on the organizational commitment and confirmed the positive relationship between these two variables. Their study concluded that increase in the organizational support causes the individuals to feel more belongingness to the organization. Also, their satisfaction towards their jobs would be more and consequently, they are more inclined to stay in the organization. POS and OC are very closely related to each other and the outcome of a positive relationship between these two is, indeed, very beneficial for the organization.

EMPLOYEE ENGAGEMENT

Building a good relationship between the employees and the organization is an essential attribute to the success of any organization. Employees should have the feeling of belongingness to the organization and they should be completely involved in the activities of the organization. The concept of 'employee engagement' seems to be a relatively recent concept and is gaining due importance in recent times. The term first appeared in an academic journal in 1990. Prior to that the focus was completely on employee satisfaction. But satisfaction was more about the employee and had hardly any connection with the performance of the employee, as well as the relationship between the employee and the organization. But the concept of employee engagement covered all the aspects relating to the employee performance as well as the employee's affiliation towards his/her organization. Bezuijen et. al., (2010) points out that, in today's rapidly changing workplace, employee engagement is becoming progressively important for employee success and organizational effectiveness. Employee engagement can be said to be the result of the relationship between an organization and its employees. It is considered to be a workplace approach which ensures that employees are committed to the goals and values of their organization and are motivated to contribute to organizational success, and are at the same time able to enhance their own sense of well-being.

Many researchers have defined the concept of employee engagement. According to Kahn (1990), 'in engagement, people express and engage themselves bodily, emotionally and cognitively during job performance'. Maslach et al. (2001) described it as, "Engagement is characterized by energy, involvement, and efficacy". Harter et al. (2002) defined employee engagement as "the individuals' involvement and satisfaction with as well as enthusiasm for work". Bakker et al. (2008) defined employee engagement (EE) as an affirmative, satisfying and work-related state of mind, which is considered by vigor, dedication and absorption.

- (a) Vigor refers to high levels of energy, lack of fatigue, mental resilience during working and the willingness to invest in individual's particular work and also the persistent optimistic attitude even in face of adversity and challenges (Schaufeli & Bakker, 2001).
- (b) Dedication is defined as the strong involvement in personal work and gaining possession of a sense of significance, inspiration, pride, challenge and enthusiasm (Schaufeli et al., 2001). This occurs when a specific employee is totally and happily occupied in his or her work and it is difficult for him or her to detach him or herself from it.
- (c) Absorption occurs when the employee fully concentrates and is happily engrossed in his/her work. Absorbed employees are fully immersed in their work that they forget everything else around them while working (Schaufeli et al., 2001).

An "engaged employee" is one who is fully engrossed in and also passionate about their work and thus helps in the progress and building the reputation of the organization. According to Seijts and Crim, (2006), an engaged employee is a person who is fully involved in and eager about his or her work also care about the future of the organization. An engaged employee may also exhibit extra role behaviors. He or she work with passion and feel a deep connection with the organization. It can also be said to be one of the determining factor in the failure and success that affect the mindset of the people in any organization. Since engaged employees have a positive attitude and activity level, they create their own positive feedback, in terms of appreciation, recognition, and success. Even though engaged employees feel tired after a long day of hard work, they describe their tiredness as a rather pleasant state because it is associated with positive accomplishments. Unlike workaholics, they enjoy other things outside work. According to Gorgievski, Bakker and Schaufeli, 2010, engaged employees do not work hard because of a strong and irresistible inner drive, but because for them working is fun.

Bakker, Schaufeli et al., (2003) demonstrated that employees in some parts of the organization may be more engaged than those in the other parts, and hence, engagement also refers to sets of employees that may be different in their levels of engagement as well. The concept of employee engagement is related to an employee's well-being and work behavior. Several reasons are being pointed out for this. The first, according to Schaufeli et al., (2002) is that, work engagement is a positive experience in itself and secondly, it is linked to positive work effect and good health. Majority of the definitions of engagement include cognitive, emotional, and behavioral component. Cognitive component is about the employees' beliefs about the management, organization and working conditions. The emotional component refers to employees' positive attitude, company's values, leaders, working condition and how they feel about their employer (Kahn, 1990; Towers Perrin, 2003; Robinson et al. 2004). Behavioral component denotes the level of willingness to act in certain ways and the skills that employees offer (Towers Perrin, 2003).

POS AND EMPLOYEE ENGAGEMENT

Employee engagement is a constructive concept as far as any organization is concerned. Engagement of the employees in the activities of the organization leads to the progress of both the employees as well as the organization. According to Seijts and Crim, 2006, it is essential for leaders and executives to be concerned about the level of engagement in the work place. The environment and culture in the organization gets better as all employees are engaged and there will be no room for hostility. Bakker & Demerouti, 2008, points out a few reasons why engaged employees perform better. They include: - positive emotions, good health and ability to mobilize resources. Employee engagement promotes and fosters a supportive organizational climate and culture that helps to build employee loyalty, versatility and involvement. It also helps the organization to become more profitable, more customer-focused, safer and more productive. Engaged employees are less likely to leave the organizations.

Eisenberger (2009) states that the combination of worker's organization identification and professional identification impacts performance behaviors and engagement. When employees strongly identify with the organization, perceived organizational support has the most positive impact on professional employees' engagement and work performance (Eisenberger, 2009). POS is considered to be the most vital source that affects the level of engagement of the employees (Rhoades and Eisenberger, 2002). The improved support from the part of the organization leads to better employee stability and engagement.

According to Eisenberger et al., (1986), rewards and incentives play a substantial role in maintaining employees' engagement, vigor, absorption, dedication and faithfulness. The employees have a tendency to assign human-like characteristics to the organization and it's this tendency that, according to them, have given rise to the concept of POS. If employees perceive that their organization is supportive, they tend to be more engaged and committed to the organization.

Perceived organizational support predicts and determines many antecedents such as job performance, job commitment, job satisfaction, job dedication, and task performance (Muse and Stamper, 2007) and employee engagement (Saks and Rotman, 2006). When the organization values employee's cooperation and efforts and pays attention to their welfare, employees feel they are supported by the organization (Eisenberger and Eder, 2008). Several approaches can be used by the organization to show that they care for its staff. These include: - job security, training, promotion, pay, autonomy, and recognition and role stressors (Shore and Shore, 1995). POS ensures employees that the organization will be with them to support them in any kind of situation - when they face a problem, execute their job and handle stressful situations (David, Martha, Neil, 2007). This builds the feeling of belongingness and involvement in the employees towards their organization and will lead to improved levels of employee engagement.

Several researches that have been carried out based perceived organizational support and employee engagement have validated the fact that perceived organizational support is positively related to employee engagement. Eisenberger, Armeli, Rexwinkel, Lynch and Rhoades, 2001, states that, employer's or organization's treatment has a great impact on employee perception and it leads employee to treat the organization well in return. This psychological contract

increases employee commitment and engagement. If the employees feel that the organization is ready to reward his efforts to achieve organizational goals, will increase employees' trust in their organization (Eisenberger et al., 1990). This feeling of trust well establishes the concept of engagement in the organization.

WORK-FAMILY CONFLICT (WFC)

The success of an employed person lies in his/her abilities to balance the demands of the work as well as his/her personal life. Some people may either prefer work more than the family and some others may prefer family over work. Both these states are an indication of an imbalance that might lead the employee to be more stressed and this will adversely affect his/her family as well as work relationship. Erdogmus (2004) states that, work is related to material needs and family is related to emotional needs and if one of these needs interfere with another, it becomes the source of problem in the lives of the employees'. According to Greenhaus, J. H., and Beutell, N. J. (1985), work-family conflict occurs when there are incompatible demands between the work and family roles of an individual that makes participation in both roles more difficult. This can lead to negative consequences. In recent times, it is found that work-family conflict (work interfering with family) is more prevalent than family-work conflict (family interfering with work), even though there are chances for both to occur.

It is found that there are internal and external explanations for work-family conflict. This is linked to the attribution theory. An internal explanation for the conflict is the desire to be successful in multiple roles, both at home and at work. The work that needs to be accomplished interferes with the personal life. External explanation for work-family conflict may occur when the work assignment takes more time to complete. When this happens, the time meant to be spend with the family will be cut down. Because of this, the family members may become unwilling to support the employee. Conflict is also likely to occur when the control employees have on their job is limited and when flexibility is minimal. In order to avoid conflict, Friedman and Greenhaus (2000) suggest that individuals should clarify what is important in life and continually experiment with achieving goals. The key lies in understanding and becoming aware of the surroundings. The incompatibility between the work domain and the family domain can be reduced to a great extent through self-awareness.

Many researchers have defined the concept of work-family conflict. According to Ayca and Eskin, 2005; Voydanoff (2005), 'WFC refers to the intervention of work in the family life'. Greenhaus and Beutell (1985) have defined WFC as, 'a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect'. They point out that WFC arises when the demands in one domain (i.e., work) make it difficult to meet the expectations and demands of the other domain (i.e., family). WFC creates several undesirable outcomes for the organization. Eby et.al. (2005) states that, the experience of work-family conflict can result in critical organizational outcomes such as lowered job satisfaction (Bruck, Allen, and Spector, 2002) and increased turnover intentions (Greenhaus, Parasuraman, and Collins, 2001; Kelloway, Gottlieb, and Barham, 1999). As per the studies of Korkmaz (2008), 'people experience these conflicts because of the burden of both family roles and work roles'. Work-family conflict can manifest itself in three forms: time, strain, and behavior (Carlson, Kacmar, & Williams, 2000). Dissatisfaction and stress are the major outcomes of WFC. WFC also results in lower job satisfaction and life satisfaction (Kossek and Ozeki, 1998), and heightened psychological distress (Burke and Greenglass, 1999).

WFC is considered to be an important antecedent of job and life effectiveness. Many researchers have shown that it is associated with a wide range of positive and negative work, family, and stress-related outcomes (Allen, Herst, Bruck, and Sutton, 2000; Eby, Casper, Lockwood, Bordeaux, and Brinley, 2005; Kossek and Ozeki, 1998). Since it affects both the work life and family life of an individual, it has to be handled effectively.

POS AND WFC

The degree of support given by the organizations can to an extent resolve the problem of work-family conflict. As POS is about the overall beliefs regarding the degree to which an employer values, cares and supports the employees', this is vital in overcoming the problem of WFC. According to Allen (2001), perceived organizational support can also be content specific to a domain such as employees' family-supportive organizational perceptions (FSOP), the degree to which an organization is seen as family-supportive. An organization is considered work-family supportive if it cares and supports the employee that enables him/her to effectively perform work and family roles and facilitates a cooperative environment by providing direct and indirect work-family resources.

The most important element of organizational support is Managerial support (Ayca and Eskin, 2005) as it is very important in order to balance work and family responsibilities and avoid possible conflicts (Foley et al., 2005; Goff et al., 1990) and this will lead to decreased level of stress. If the employees don't receive support from the part of the organization, it can give rise to a lot of undesirable outcomes like stress, demotivation and dissatisfaction that can deter both the work life and the family life.

WFC also negatively affects their work performances and this negativity can also spread into their family life. This situation may create unhappy individuals who are not interested in anything. Their energy and brains remain underutilized. Several studies have shown an inverse relationship between POS and WFC, i.e., as POS increases, WFC is found to decrease and vice versa. So it is important to increase the organizational support provided to the employees by the organization. If the organization follow a culture of supporting the employees and if the employees are able to perceive the support given by the organization, then the issue of WFC can be curbed very effectively.

CONCLUSION

The concept of POS has gained a very significant position in the organizations. It decides the degree of employee loyalty, commitment and engagement towards the organization. POS has a link between almost all the HR concepts, which makes it an unavoidable aspect for any organization. It spells out the importance of good employee-employer relationship and will also increase the felt obligation of the employees towards the organization. A look into the concept of POS is the deciding factor of the extent to which the organization can be successful, not just in terms of money, but also in terms of the most important asset of an organization – the human resource.

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ROBOTS REPLACING HUMAN IN THE BANKING SECTOR - NEW ERA OF ROBOTS: A SYSTEMATIC STUDY

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ABSTRACT

In the paradigm of technology banking sector has been affected by technology too. When we glimpse at the global platform for the financial services activities most of the operations are automated to ease the services for customer and better insight for customers. This study accentuates on the creation of workplace where both robot and human interact and work together to address the customer services. Robots play vital role in the multi-tasking and can work in the hazardous working conditions. This study also focuses on the partial and fully pledged implementation of robots in the work place and converse the pros and cons of partial and fully implementation of robots. Introduction of robots in the banking sector in the India and how would be the customer and internal customer respond to it. How effectively it can be implemented and accomplished to ease the work and pace with technology driven economy on global overview. To conclude, the study endeavour about the future prospective of robots in the Indian economy.

KEYWORDS

banking, future prospective, partial, robots.

INTRODUCTION

Revolution in the area of automation to be global competitive in the banking industry, it is essential to adopt technology and various automation software's in order to reduce interface of human in the operations. When you visit bank, imagine of robots in the place human how you react to it. Robots acts as human and helps in assisting customers to solve their query. In many business and sectors, robots are replacing humans especially in the area of manufacturing, retail sector, aeronautics etc. with the wave of technology, many banks will need fewer space with better use of technology and require less human source.

Robots play role in the manual and repetitive tasks. When we come to the area of banking robot can be introduced in the field of customer care service (Telephonic Queries) and it can tremendous role in the place of cashier where you don't need much interaction. Globally we can see the banks who have introduced robots in the operations of banking industry.

In the technology driven economy, it's indispensable to upgrade our processes and area of banking to enlighten and depict the customers about technology. When we look at the recent developments in the world of banking and finance across the world its surprising to face the banking processes automated and no human interface. Banking sector should be forefront for the innovation in the banking activities with the consideration of technology.

REVIEW OF LITERATURE

This study states the relation and interaction of robot and human at the workplace made more innovative way of bringing technology in the field of banking. With the pace of swift, customers depiction towards the technology driven global economy.

OBJECTIVES OF THE STUDY

Following are the objectives of the study:

1. To know the pros and cons of the robots in banking sector in India
2. To study the positive and negative impact of the robots with partial and full replacement of human at workplace.
3. To study the future perspective of robots in the Indian banking industry.

RESEARCH METHODOLOGY

The study has originated from insights of the various articles, referred various articles to analyse the implementation process of robots if it happens in India. Its derived from the contemporaneous shifts happened in the other countries like US etc. In the context of Indian banking sector, how robots play a role and how it contributes to the sector and deliver usurp services to the clients or customers. Genuine attempt made to analyse the status quo of the study in Indian banking sector.

WHY ROBOTS IN THE PLACE OF HUMAN

This study assist in differentiating the productivity of human and robot in the workplace and also to modernize the operations with the pace of introduction of robots to produce better quality without sojourns. Significantly the industries are benefited with robotic automation as mentioned below:

- Accuracy – Error free
- Increase in productivity
- Increase in the ease of operations
- Reduction of workload for the existing workers
- Competitive edge over the technology
- Accomplish peak season
- Consistency
- Pioneer In the technology

Significantly, the motive of deploying robots in the banking industry is to improve quality, reduced cost, increased speed and appreciation in the accuracy and consistency. The kind of the benefits are derived from the deploy of robots in manufacturing and service industry differ in many aspects. The characteristics of deploying of robots in the manufacturing industry assist in the reduction in the cost of production, increased speed etc.

Replacement of human in clerical work doesn't require much of training of staff to supervise the operations. Whereas replacement of labour in the place of human definitely has significant implication when the repetitive job is replaced at lower cost. Robots also plays tremendous role in the area of confidentiality.

Each industry strives to upgrade their technology to make strong base in the market and also retain and attract more number of customers with their exclusive services. Across the world many banks are embracing the automation of operation through robots which enhance the abrasion less operations.

CURRENT PARADIGM OF AUTOMATION IN INDIA

Automation empowers the growth of business and establishing great market presence. One of the articles says that IT Companies in India prefer to spend more on the capital than on the human resource. In other words, companies are ready to spend on the technology than on the human resource.

As per the survey by IBM on emerging trends in the banking industry, customers are looking for much customized services, transparency in terms of costs; technology oriented and supported services which can ease the customers. Customers are focusing on the convenience of services

Contemporarily, robots are playing major role in the industries like manufacturing, retailing etc. Fundamental modification in foremost sectors of the global economy, the paradigm shift in the banking sector is part of global change in the technology. Shift in the technology is inevitable for all the sectors who exposed to the technology.

Recent developments and innovation will redefine the banking industry, delivery of services and products. Robotic automation can be defined as automation of built-up and clerical operations using Robots.

STUDY THEME

This study emphasize on two broader way of introducing robots in the banking sector

- Partial robotic operations
- Full pledged robots in the place of human and operations.

I] PARTIAL ROBOTIC OPERATIONS

In the banking sector, robots are introduced in the job of cashier and telephonic queries resolution (Customer care representative). Deploying of robot in the tasks such as double data entry, copy and paste between the computers, reconcile the data and cross verification between the different computers and systems. IT transformation demands the high investment in the time and money works for the clerical and manual work of repetitive tasks.

POSITIVE IMPACT

The partial impact of the study goes as follows:

- 1) Reduction of time consumption
- 2) Existing employees can be utilized in better area
- 3) Burden of the employees reduced by taking over monotonous job.
- 4) Scope for innovative ideas and job areas by employees.
- 5) Customers are ensured error free service as it's free of human intervention.
- 6) Pioneer in the introduction of robot in the banking industry in India.
- 7) To gain edge of over competitors.

NEGATIVE IMPACT

The following are the negative impact of the study:

- 1) Reduction of jobs for human in future.
- 2) Task of the cashier and CSR will be laid off; existing employees will lose their current job.
- 3) No human Interaction – Customers and employees should be working with machines.
- 4) Employee response to the change in technology.

II] FULL PLEDGED INTRODUCTION OF ROBOTS

From the statistics of world robot association, upsurge in the production robots over a period of time. Technology plays phenomenal role in the industry of banking, this study endeavour to state the pros and cons of the full implementation of robots in the place of human.

Robotics may well see many more innovations that address larger issues and bring about lasting social transformations. Automation assists to become globally competitive for the companies in industry of the nation. Robots can act as human; at the same time it is known fact that it can replace the intelligence, interpersonal, knowledge skills of an employee. By playing the role of human they can add value to the existing system and process which is of complex and requires more time in doing repetitive jobs.

POSITIVE IMPACT

The following are the positive implications of the full robots at work place from the study:

- 1) Better quality
- 2) 100 % Error free
- 3) Getting rid off absentees at workplace
- 4) Getting competitive edge on global platform.
- 5) Convey usurp operations in India with technology
- 6) Existing few employees trained with new technology and new skills.

NEGATIVE IMPACT

Following are the negative implications of full robots in the workplace as follows:

- 1) Fewer human left out at workplace to operate and supervise the automation.
- 2) Proliferation in the rate of head count.
- 3) Upsurge in the rate of unemployment in the country.
- 4) Require more funds for the automation operations.

TABLE 1: ESTIMATED YEARLY SHIPMENTS OF MULTIPURPOSE INDUSTRIAL ROBOTS IN SELECTED COUNTRIES. (Number of units)

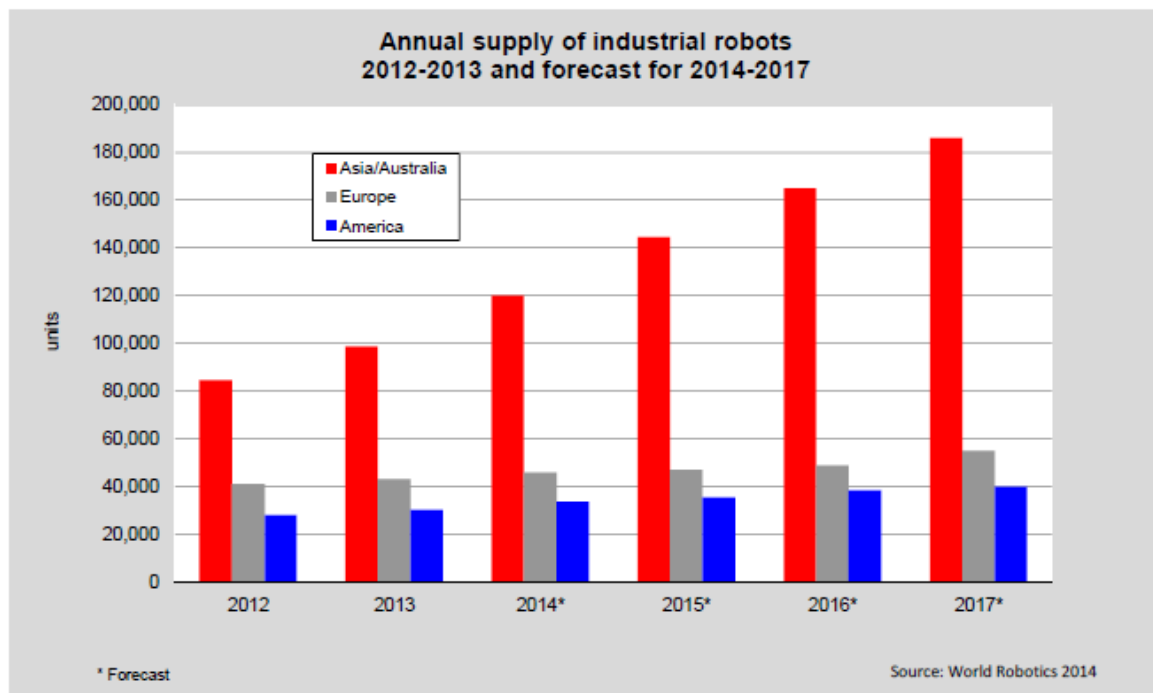
Country	2012	2013	2014*	2017*
America	28,137	30,317	33,700	40,000
Brazil	1,645	1,398	2,000	3,500
North America (Canada, Mexico, USA)	26,269	28,668	31,500	36,000
Other America	223	251	200	500
Asia/Australia	84,645	98,807	120,000	186,000
China	22,987	36,560	50,000	100,000
India	1,508	1,917	2,500	5,000
Japan	28,680	25,110	28,000	32,000
Republic of Korea	19,424	21,307	23,500	26,000
Taiwan	3,368	5,457	6,000	9,000
Thailand	4,028	3,221	4,200	7,000
other Asia/Australia	4,650	5,235	5,800	7,000
Europe	41,218	43,284	46,000	55,000
Czech Rep.	1,040	1,337	1,800	2,600
France	2,956	2,161	2,300	2,800
Germany	17,528	18,297	19,500	21,000
Italy	4,402	4,701	4,800	5,500
Spain	2,005	2,764	3,000	3,800
United Kingdom	2,943	2,486	2,500	3,500
other Europe	10,344	11,538	12,100	15,800
Africa	393	733	800	1,000
not specified by countries**	4,953	4,991	4,500	6,000
Total	159,346	178,132	205,000	288,000

Sources: IFR, National Robot Association

*forecast

**reported and estimated sales which could not be specified by countries.

FIG. 1



Sources: IFR, National Robot Association

The robotics industry in North America is having its best year ever in 2014,” said Jeff Burnstein, President of RIA. “Along with record performance, we are seeing more interest in robotics and related technologies than ever before. Companies of all sizes continue to recognize that automation makes them stronger global competitors. It’s also interesting to note that as robot sales boom, U.S. unemployment continues to fall, and is currently at its lowest level since July of 2008, further evidence that robotics helps save and create jobs.”

REPORT HIGHLIGHTS

- The global robotics industry was worth \$17.3 billion in 2008 and an estimated \$17.6 billion in 2009. This should reach \$21.4 billion in 2014, for a compound annual growth rate (CAGR) of 4.0%.
- The industrial robots segment is the largest segment, worth \$11.5 billion in 2008. This is expected to decrease slightly to \$10.5 billion in 2009, and then grow at a CAGR of 2.8% to reach \$12.1 billion in 2014.
- Professional service robots are the second largest segment, generating \$3.3 billion in 2008. This should increase to \$4.0 billion in 2009 and \$5.4 billion in 2014, for a CAGR of 6.0%.

FUTURE PERSPECTIVE OF AUTOMATION

Prophecies regarding how the automation process and operations provide services to the customers are salient feature of science fiction. In the today's world the robots are making the lives of human easier and human is getting the required service at the ease. Robotic automation is debauched emerging as a highly demonstrable and efficient. It ensures the cost reduction of 25 to 50% and ensures high savings. It also entreaties the compliance and risk management operations because it reduces the human errors tremendously.

CONCLUSION

This study assists in determining the prerequisite of technology in the banking sector on broader aspect. In depth study of the introducing robots in the banking sector with partial and fully pledged classification or segregation of implementation in the workplace in Indian Banking and financial service sector. A robot has noticeable productivity and ensures error free tasks and operation with quality and customer delight with ease ensuring the safety and security of the task and also ensures the confidentiality in terms of banking activities wherever it's required. There is no wonder if in future when you visit bank you see robots in the place of humans and your required service will be delivered by robots. India has great future in banking sector with automation.

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PERFORMANCE ASSESSMENT OF MGNREGS: A CASE OF PUTHURANI PANCHAYAT OF SIVAGANGA DISTRICT (TAMIL NADU)

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ABSTRACT

The MGNREGS has widely covered the marginalized people in the rural areas, SC, ST and agricultural labourers, thus, helps in fostering social equity. Certain aspects like non-availability of basic facilities, lack of awareness on provisions of MGNREGS among workers, lack of rigorous planning and increase in labour wage rate and shortage of labour in agriculture are appeared to be weaknesses and problems of MGNREGS. To improve effectiveness and to achieve desired results of the scheme, planning of works must be based on, extensive discussion and consultation with community members and, holistic views and conditions obtained of the rural area that is village panchayat, concern, which may ensure hundred days of employment; workers need to be thoroughly oriented on all the provisions and rights entitled to them under the scheme; workers who are not members of any SHG may be brought under SHG fold so as to utilize the wage earnings from MGNREGS and other income properly and productively; and the number of days of employment may be enhanced.

KEYWORDS

MGNREGS, Puthurani panchayat, Shivganga District.

INTRODUCTION

Early one-third of the world poor are Indian (World Bank) and most of them inhabit in rural areas. As a part of its commitment to the Millennium Development Goals, the State has been introducing a number of interventions to reduce the poverty levels of 1990 to half by 2015. But the poverty level is still high and is largely a rural phenomenon. As per the official statistics, about 28.3 per cent of rural population is poor with per capita expenditure (individual expenses) of less than Rs.12 per day in 2004-2005 and in absolute terms the number of rural poor was 221 million. It is also observed that the **poverty elasticity of growth** has been declining, since the era of new economic reforms (1991). The high growth of GDP in the recent years coupled with incidence of unacceptable levels of poverty reveal the non-inclusive nature of the growth of the economy (Rao and Prasad, 2008). An employment intensive growth will ensure that poverty will decline and inequality does not increase. However, the employment elasticity of manufacturing has fallen sharply in the 1990s. The only reason employment has been growing as rapidly as the labour force is on account of growth in services. But that has left the majority of those dependent upon India's slow-growing agriculture behind – particularly as crop production growth has slowed in the nineties (Santhosh Mehrotra 2005). It is to be noted that the agriculture growth in many states is low and stagnant and below the targeted four percent to enhance livelihood security of the agriculture dependent population (Rao and Prasad, 2008). Most of the Indian poor are the working poor. Most poor families are in casual employment or self-employed. About 75 per cent of the poor in rural area are daily wagers, self-employed households and landless labourers. There are 40 crore people who fall under labourer category in India. More than 70 per cent of these labourers are residing in rural areas and among them 12.47 crore are being domestic industry labourers. Those with regular employment are least likely to be poor.

While about 25 per cent rural household (landless labourers and bonded labour), have either no income generating assets, 80 per cent farmers being small and marginal have inadequate and / or poor quality of assets with meager or no irrigation facilities, and rural artisans have no access to modern tools /equipment and marketing. Problem of perpetual and pernicious poverty more particularly in rural areas has been deeply rooted into the large-scale unemployment among rural households, particularly the asset-less or those endowed with inadequate are / or poor quality of assets during half of the year. Chronic (**constant**) unemployment for a large part of the year is prevalent in hilly, tribal, desert and drought prone areas. The situation becomes very pathetic when monsoon fails (Patel, 2006).

The economic fabric of rural India is changing with households consciously trying to reduce risk by diversifying their job profiles. Though farming continues to be the main profession, most male members of a typical rural family are taking up non-agriculture jobs while the women folk continue to focus on agriculture. Taking up non-agriculture jobs led to a significant rise in seasonal migration to the urban areas. However, they come only during the slack season to sustain the inflow of income" (Venkatesh, 2008). With 301.7 million poor people, constituting 27.5 per cent of the population, poverty reduction in India is clearly far slower than anticipated. As noted as earlier, most chronically poor are landless or near-landless, have a higher dependency burden and illiteracy level and depend on wages. In a rural agrarian labour surplus economy, sections of rural population depend on the wage they earn through unskilled, casual, manual labour. They are vulnerable to the possibility of sinking from transient to chronic poverty in the event of inadequate labour demand or in the face of unpredictable prices that may be general in nature, like natural disasters or personal, like ill-health, all of which adversely impact their employment opportunities.

The wage dependence of those in chronic poverty makes recent initiatives under the National Rural Employment Guarantee Scheme (NREGS) an important milestone in anti-poverty policies, since India's independence (CPRC). In a context of poverty and unemployment, work for welfare (workfare) programmes have been important interventions in developed as well as developing countries for many years. The programmes typically provide unskilled manual workers with short-term employment on public works such as irrigation, infrastructure, afforestation, soil conservations and road construction. The table 1 lists out the wage employment programmes implemented prior to NREGS in India. India has a long history of wage employment programmes, and various reviews of these programmes have revealed the weaknesses as follows: low programme coverage; more than 50 per cent beneficiaries not from most needy group; bureaucracy dominated planning and little participation of community in planning; work to women lower than stipulated norm of 30 per cent; only 16-29 days employment provided to households; assets created were not durable; and corruption: reports of false muster rolls; contractors persisted; payment often less than prescribed wages.

PROBLEM AND OBJECTIVES

Based on the earlier experiences, the parliament of India passed a revolutionary law namely NREGA in 2005 so as to give birth to the new scheme of NREGS. The Act was amended in 2009 and the name of the Act was changed as the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGS). The scheme was introduced in three phases in the country. A survey of literature available on MGNREGS shows that there are good numbers of studies, based on secondary data. **Of course**, there are studies based on primary evidences on the implementation and effects of MGNREGS from different parts of the country. However there are only a few field studies on MGNREGS in Tamil Nadu. The review of literature also reveals that studies so far made are with reference to villages covered in phase

I and phase II only. It is, exactly against this background, the present study is carried out with an objective to understand socio-economic conditions of the MGNREGS workers in the study area and to assess the performance of MGNREGS in the study area in the light of the main objectives of the scheme.

METHODOLOGY, SCOPE AND LIMITATIONS

The present study is analytical in nature as it aims to appraise the performance of MGNREGS in the light of objectives. The study is based on primary data collected from sample respondents and secondary data collected from village Panchayat records are used in the study. The Puthurani Panchayat of Kannangudi Block of Sivaganga District has been selected for the present study, purposively. It was decided to collect data from the MGNREGS workers in the study village Panchayat. The study relies mainly on the data collected from them. **Purposive sampling** method was used as respondents were purposively drawn from MGNREGS workers. As such 30 respondents from the Puthurani Panchayat were selected for the study, by employing simple random sampling. A pre-tested and well-administered interview schedule was used and confined to collect information on certain areas of impact of the scheme. The study was conducted during December 2010 – March 2011. Simple statistical tools such as percentages, ratios and averages were used in the analysis of data. The findings of the study would throw light on performance of MGNREGS in the study village Panchayat. Thus, the findings would add to existing knowledge in the field of rural employment generation programmes in general and in MGNREGS in particular. The application of findings is limited mostly to study village Panchayat rather than to other areas. **Social aspects such as social audit, transparency and accountability were not given treatment under the study.**

ANALYSIS AND DISCUSSION

The abridged inferences of the analysis and discussion of the study are presented below:

Socio-Economic Characteristics: Age of most of the MGNREGS workers (43.3 per cent) ranges more than 45 years. No one is below 20 years of age and in the age group of 60 years and above. Further, 63.4 per cent of them belong to Scheduled Tribes (ST) community; remaining 36.6 per cent belong to Scheduled Castes. The distribution of by their main occupation reveals that 76.6 per cent of the working population is wage labourers. More than one-fourth of the MGNREGS workers (26.6 per cent) are illiterates. Among those who are literate those who have studied up to primary and middle school level form the majority. Most of the MGNREGS workers (63.4 per cent) own less than one acre of land and 26.7 per cent own more than one acre. Only 6.6 per cent own no land. Most likely (63.4 per cent) they have a family size of 3-5 members (each), followed by less than 3 members (30 per cent) and more than 5 members (6.6 per cent). Among the sample MGNREGS workers, 43.4 per cent of the households have a family income of Rs.10, 000/- to Rs.20, 000/-, followed by Rs.20, 000/- to Rs.30, 000/- annual income category (20 per cent). Ten percent of them fall in the annual income category of more than Rs.30, 000/- and only 2.6 per cent's annual family income is just less than Rs.10, 000/-.

Impact of MGNREGS: All the MGNREGS workers had debt before they take participation in the MGNREGS and 17 out of 30 respondents were from the burden of debt after the participation in the MGNREGS. Further, MGNREGS did not made any significant impact on the indicators of housing status and there is no change in their housing status.

Source of Information and Awareness: Gram Panchayat Head (GP Head) (93.3 per cent) and Gram Saba (90 per cent) are the prime sources of information about MGNREGS, followed by other popular medias such as television (73.3 per cent), newspaper (53.3 per cent) and radio (23.3 per cent). All the MGNREGS workers are aware about the minimum wage under MGNREGS, 96.6 per cent aware that minimum of 100 days of employment should be provided under MGNREGS, 83.3 per cent aware that work to be given within 15 days of application and only 36.6 per cent aware about the facilities to be availed in the worksite. Further, it is especially observed that only 6.6 per cent aware about the provision which assures one third of workers to be women.

Job Seeking and Wages: All the MGNREGS workers have their job cards, but, 66.6 per cent of them only have their job cards at their hands, 23.4 per cent of respondents lost the cards and 10 per cent kept their cards with someone else. Regarding the frequency of job provided under MGNREGS, 93.4 per cent got frequent jobs within 15 days of their application and remaining are not. In connection with the unemployment allowance, 73.4 per cent received unemployment allowance, according to MGNREGS provisions. With regard to get the job card, 73.4 per cent faced difficulties in getting the job card and remaining 26.6 per cent didn't face any difficulty. Over the period from 2006-07 to 2009-10, all the male workers received higher wages than the minimum wage provided under MGNREGS, in the agricultural sector, and in 2009-10, all females were also received higher wages than the minimum wage provided under MGNREGS, in the agricultural sector. All the respondents of the study have the individual bank / post office (PO) account. Prior to participating in MGNREGS, only 63.3 per cent of the respondents hold the bank / PO account and remaining 26.7 per cent opened their bank / PO account after they start participating in MGNREGS. Regarding the system of depositing their MGNREGS wages in bank / PO, 60 per cent are informed and others (40 per cent) noted that they were not informed. Loss of working hours / days (86.7 per cent), return without receiving the money (76.6 per cent), lack of knowledge on how to withdraw (66.7 per cent), non-cooperation bank / PO officials (50 per cent) and commission asked by the staff of bank / PO (20 per cent) are identified as limiting factors of receiving the MGNREGS wages through bank / PO.

Use Pattern of Earnings: All the MGNREGS workers spent more than Rs, 3, 000/- per annum for the expenditure on foodgrains and other consumable items from their MGNREGS annual earnings. Further, majority of them (86.7 per cent) spent Rs.1, 000/- - Rs.2, 000/- for health and education, and Rs.1, 000/- - Rs.2, 000/- for social ceremonies / marriages (70 per cent spent). For household durables, 90 per cent of the respondents spent less than Rs.1, 000/- and remaining 10 per cent spent Rs.1, 000/- - Rs.2, 000/-.

Participation in Social Auditing: Remarkable number of MGNREGS workers (80 per cent) participated in the MGNREGS related Gram Saba meetings, in contrast, majority of them (76.7 per cent) were not participated in the socio auditing of MGNREGS. But, 46.7 per cent participated in the SHGs / other organization formed for MGNREGS as members.

Perceptions and Aspirations: No one is disappointed with MGNREGS, which received vast greet from the sample MGNREGS workers. Though, they satisfied (60 per cent) with the minimum number of employment days, it is understood that they (40 per cent) wanted to increase the same. With regard to considering the household as a unit for MGNREGS, they (80 per cent) advocated that instead of household, individual may be considered as a unit for MGNREGS.

CONCLUSION

The MGNREGS has widely covered the marginalized people in the rural areas, SC, ST and agricultural labourers, thus, helps in fostering social equity. Certain aspects like non-availability of basic facilities, lack of awareness on provisions of MGNREGS among workers, lack of rigorous planning and increase in labour wage rate and shortage of labour in agriculture are appeared to be weaknesses and problems of MGNREGS. To improve effectiveness and to achieve desired results of the scheme, planning of works must be based on, extensive discussion and consultation with community members and, holistic views and conditions obtained of the rural area that is village panchayat, concern, which may ensure hundred days of employment; workers need to be thoroughly oriented on all the provisions and rights entitled to them under the scheme; workers who are not members of any SHG may be brought under SHG fold so as to utilize the wage earnings from MGNREGS and other income properly and productively; and the number of days of employment may be enhanced.

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APPENDIX

TABLE 1: WAGE EMPLOYMENT PROGRAMMES PRECEDING MGNREGA IN INDIA

Scheme	Year
Rural Man Power (RMP)	1960 – 61
Crash Rural Employment Programme (CREP)	1969 – 70
Small Framers Development Agency (SFDA)	1969-1970
Marginal Farmers and Agricultural Labour Schemes (MFAL)	1969-1970
Pilot Intensive Rural Employment Programme (PIREP)	1972
Food for Work Programme (FWP)	1977
National Rural Employment Programme (NREP)	1980
Rural Landless Employment guarantee Programme (RLEGP)	1983
Employment Assurance Scheme (EAS)	1993
Jawahar Rojgar Yojna (JRY)	1993 – 94
Jawahar Gram Samridhi Yojna (JGSY)	1999 – 2000
Sampoorn Grameen Rojgar Yojna (SGRY)	2001 – 02
National Food for Work (NFFWP)	2005

Source: www.rural.nic.in

TABLE 2: SOCIO-ECONOMIC CHARACTERISTICS OF THE RESPONDENTS

Particular	No of Respondents	Percentage
1.Sex		
Male	17	56.6
Female	13	43.4
Total	30	100
2.Age		
< 35 years	8	26.7
35-45 years	9	30.0
>45 Years	13	43.3
Total	30	100
3. Community		
SC	19	63.4
BC	11	36.6
Total	30	100
4. Primary Occupation		
Self-Employment	3	10.0
Regular Wage Salaries	23	76.6
Attached Labour	3	10.0
Unpaid family Labour	1	3.4
Total	30	100
5. Education Qualification		
Illiterate	8	26.6
Primary	9	30.0
Middle	9	30.0
Secondary	4	13.4
Total	30	100
6. Land Ownership		
No Land	2	6.6
< Acres	20	66.7
> Acres	8	26.7
Total	30	100
7. Family Size		
< 3 members	9	30.0
3-5 members	19	63.4
>5 members	2	6.6
Total	30	100
8.No of earning members in the family		
One	11	36.7
Two	17	56.7
Three	2	6.6
Total	30	100

Source: Computed from Primary Data

TABLE 3: ANNUAL FAMILY INCOME OF THE RESPONDENTS BY SOURCES

Gross Income of the Respondents (in Rs)	No. of Respondents	Percentage
<10000	8	2.6
10000 - 20000	13	43.4
20000 - 30000	6	20.0
> 30000	3	10.0
Total	30	100

Source: Computed from Primary Data.

TABLE 4: IMPACT OF MNREGS ON INDEBTEDNESS OF THE RESPONDENTS

Incidents of Debt	Before MGNREGS	After MGNREGS
<25000	10 (33.3)	6 (20.0)
25000-50000	10 (33.3)	2 (6.6)
50000-100000	7 (23.4)	5 (16.6)
>100000	3 (10.0)	-
No debt	-	17 (56.8)
Total	30	30

Source: Computed from Primary Data.

Note: Figures the parenthesis represent Percentage.

TABLE 5: IMPACT OF MNREGS ON HOUSING STATUS OF THE RESPONDENTS

Particulars	Before MGNREGS	After MGNREGS
1. IAY House:		
Yes	7 (23.34)	7 (23.34)
No	23 (76.6)	23 (76.6)
Total	30	30
2. Types of House		
❖ Thatched /Kachaha	18 (60.0)	18 (60)
❖ Semi-pucca	6 (20.0)	6 (20)
❖ Pucca	6 (20.0)	6 (20)
Total	30	30
3. house in own land		
Yes	16 (53.3)	16 (53.3)
No	14 (46.7)	14 (46.7)
Total	30	30
4. No of Rooms		
1 rooms	8 (26.7)	8 (26.7)
2 rooms	11 (36.7)	11 (36.7)
3 rooms	6 (20.0)	6 (20.0)
4 rooms	5 (16.6)	5 (16.6)
Total	30	30
5. Access to Electricity		
Yes	22 (73.4)	20 (66.6)
No	8 (26.6)	10 (33.4)
Total	30	30
6. In house Toilet		
Yes	6 (20.0)	6 (20.0)
No	24 (80.0)	24(80.0)
Total	30	30
7. Access of safe drinking water within the pricewise		
Yes	10 (33.4)	10 (33.4)
No	20 (66.6)	20 (66.6)
Total	30	30

Source: Computed from Primary Data.

Note: Figures the parenthesis represent Percentage.

TABLE 6: MGNREGS AND JOB SEEKING

Particulars	No of Respondents	Percentage
1. Information about MGNREGS		
1. Radio	7	23.3
2. Television	22	73.3
3. Newspaper	16	53.3
4. Gram sabha	27	90.0
5. GP head	28	93.3
2. Awareness Provisions of MGNREGS		
❖ Minimum of 100 days of employment	29	96.6
❖ Minimum Wages	30	100.0
❖ Work to be given within 15 day of application	25	83.3
❖ One third of workers to be women	2	6.6
❖ Facilities at worksite	11	36.6
3. Possession of job card		
Yes	30	100.0
No	-	-
Total	30	100
4. Possession of job card at the moment		
❖ In possession	20	66.6
❖ Lost	7	23.4
❖ With someone else	3	10.0
Total	30	100
5. Paid for job card		
Yes	8	26.6
No	22	73.4
Total	30	100

Source: Computed from Primary Data.

TABLE 7: APPLICATION FOR THE JOB UNDER MGNREGS

Particulars	No of Respondents	Percentage
1. Source of Application for the job		
❖ GP head	5	16.6
❖ GP office	25	83.4
Total	30	100
2. Receipt of Application		
Yes	0	-
No	30	100
Total	30	100
3. Frequency of job within 15 days of Application		
Yes	28	93.4
No	2	6.6
Total	30	100
4. Applied too unemployment allowance		
Yes	24	80
No	6	20
Total	30	100
5. Received unemployment allowance		
Yes	22	73.4
No	8	26.6
Total	30	100
6. Existence of difficulty in getting the job card		
Yes	22	73.4
No	8	26.6
Total	30	100

Source: Computed from primary data.

TABLE 8 (A): MGNREGS WAGE AND PREVALENT WAGE IN AGRICULTURE-MALE

Year	MGNREGS Minimum Wage	Prevalent a Wage Agriculture		Total
		Higher	Lower	
2006-07	80	17	-	17
2007-08	80	17	-	17
2008-09	80	17	-	17
2009-10	80	17	-	17

Source: Computed from Primary Data.

TABLE 8 (B): MGNREGS WAGE AND PREVALENT WAGE IN AGRICULTURE-FEMALE

Year	MGNREGS Minimum Wage	Prevalent a Wage Agriculture			Total
		Higher	Lower	Actual	
2006-07	80	-	9	4	13
2007-08	80	4	-	9	13
2007-09	80	7	-	6	13
2009-10	80	13	-	-	13

Source: Computed from Primary Data.

TABLE 9: MODES PAYMENT OF MGNREGS WAGES AND ITS COMPONENTS

Particulars	No of Respondents	Percentage
Mode of payment		
GP office	13	43.3
GP Head	17	56.6
Total	30	100
Bank / post office Account		
Have	30	100
Haven't	-	-
Total	30	
Type of Account		
Individual Account	30	100
joint Account	-	-
Total	30	100
Bank / Post office Account Prior to MGNREGS		
Yes	19	63.3
No	11	36.7
Total	30	100
Proximity of Bank / Post office from Home		
Up to 7 Km	10	33.3
>10 Km	20	66.7
Total	30	100
Information about deposit of wage in Bank /PO account		
Yes	18	60.0
No	12	40.0
Total	30	100
Difficulties in getting payment of wages through Bank /PO		
Loss of working hours /days	26	86.7
Had to return without money	23	76.6
Non-cooperation of bank Po	15	50.0
Commission asked by Staff	6	20.0
Do not know how to withdraw	20	66.7

Source: Computed from primary data.

TABLE 10: USE OF MGNRES EARNINGS BY THE RESPONDENTS

Items of Expenditure	< Rs.1000	Rs.1000-Rs.2000	Rs.2000-Rs.3000	> Rs.3,000	Total
Food grains and other Consumable items	-	-	-	30 (100.0)	30
Education and Health	3 (10.0)	26 (86.7)	1 (3.3)		30
Festivals Social Ceremonies / Marriages	7 (23.3)	21 (70.0)	2 (6.7)	-	30
House hold Durables	27 (90.0)	3 (10.0)	-	-	30

Source: Computed from Primary Data.

Note: Figures the parenthesis represent Percentage.

TABLE 11: PARTICIPATION OF THE RESPONDENTS IN MGNREGS PROCEDURAL ASPECTS

Particular	Participated	Not Participated	Total
Participation in MGNREGS related Gramasaba Meeting	24 (80.0)	6 (20.0)	30
Participation of female members in MGNREGS related Gramasaba Meeting	21 (70.0)	9 (30.0)	30
Participation in question House of Gramasaba Meeting	10 (33.3)	20 (66.7)	30
Participation of female members in question House of Gramasaba Meeting	15 (50.0)	15 (50.0)	30
Participation in social Auditing of MGNREGS	7 (23.3)	23 (76.7)	30
Participation of female members in social Auditing of MGNREGS	9 (30.0)	21 (70.0)	30
Membership in Self-Help Groups/ other organization formed for MGNREGS	14 (46.7)	16 (53.3)	30

Source: Computed from Primary Data.

Note: Figures the parenthesis represent Percentage.

TABLE 12: PERCEPTIONS AND ASPIRATIONS ON MGNREGS

Particulars	No of Respondents	Percentage
Usefulness of MGNREGS		
Very useful	5	16.7
Useful	25	83.3
Total	30	100
Is the minimum number of employment days under MGNREGS Sufficient?		
Yes	18	60.0
No	12	40.0
Total	30	100
Expected minimum employment days for you & family		
150 days	15	50.0
200 days	11	36.7
250 days	4	13.3
Total	30	100
Is individual should be the unit for providing job guarantee?		
Yes	24	80.0
No	6	20.0
Total	30	100

Source: Computed from Primary Data.

Note: Figures the parenthesis represent Percentage.

WORKERS PARTICIPATION IN MANAGEMENT IN INDIA: AN EVALUATIVE STUDY**SIDDANNA APCHAND****LECTURER****VIVEKANANDA COLLEGE OF SOCIAL WORK****RAICHUR****MAHESH URUKUNDAPPA****GUEST LECTURER****DEPARTMENT OF STUDIES & RESEARCH IN SOCIAL WORK****P. G. CENTRE RAICHUR****GULBARGA UNIVERSITY****KALBURGI****DR. RASHMIRANI AGNIHOTRI H.R****POST DOCTORAL FELLOW****DEPARTMENT OF STUDIES & RESEARCH IN SOCIAL WORK****P.G. CENTRE RAICHUR****GULBARGA UNIVERSITY****KALBURGI****ABSTRACT**

This paper is concerned with an investigation of the existing level of Worker Participation in Management Decision making within the industrial environment. The study involved an evaluative study of Sugar Mills in Haryana, TISCO, National Thermal Power Corporation in India. Results show that employees in organizations demonstrate a high interest in participation in the decision making process within their respective work places. However, the actual level of involvement in management decision making demonstrated by the employees was found to be relatively low. Workers' participation in management can be considered as an advanced form of labour- management co-operation. It is a symbol of joint and cordial relationship, which explains the extent of adjustment between the workers and management for the maintenance of peaceful and harmonious environment in the corporation. A main aim of this scheme is to help in increasing production and productivity and sharing the gains of productivity through more effective management and better industrial relations. However, all the attempts made by Government, Employers and other workers towards greater participation of workers' in industrial management have failed to fulfill the objectives for which they were promoted. The study discusses the theoretical aspect of workers' participation in management and gives a practical example of some selected organizations.

KEYWORDS

worker participation, management, industrial management, labour- management, co-operation.

INTRODUCTION

Workers participation implies arrangements designed to involve workers in the enterprises decision making process. This allows for workers' involvement in the initiation, formulation and implementation of decisions within the enterprise. The concept can also be understood in terms of a new approach to industry and society in which people want to be interested with the taking of decisions which have direct bearing on them.

Workers' Participation in Management John Leitch has defined Industrial Democracy as "the organization of any factory or other business institution into a little democratic state with a representative government which shall have both the legislative and executive phases". In the same manner as political democracy has converted subjects into citizens, with right of self-determination and self-government, industrial democracy converts the workers from the mere subjects obeying the orders of the employers, into citizens of the industrial world, with a right to self-determination and self-government, that is, representative participation in making rules and enforcing them. This is known as Workers' Participation in Management, workers' participation in management means giving scope for workers to influence the managerial decision-making process at different levels by various forms in the organization. The principal forms of workers' participation are information sharing, joint consultation, suggestion schemes, etc.

It is a mechanism to facilitate participation of workers in the process of decision-making. It is a power balancing process which recognizes the interest of the party's conflict. But that this can be resolved through negotiations, Workers participation is directed towards the identification of common interests between the two parties and their pursuit through cooperation. This definition has put forth certain points in regards to workers participation. These are:

The participation has to be at different level of management: At the shop floor level; at the department level ;and at the top level.

Participation ensures the willing acceptance of responsibilities by the body of workers .As they become party to decision-making, they have to commit themselves to ensuring implementation.

Participation is conducted through the mechanism of different forms and practices which provide for the association of workers representatives.

DEFINITIONS

According to Keith Davis, "Workers' participation refers to the mental and emotional involvement of a person in a group situation which encourages him to contribute to group goals and share in responsibility of achieving them".

A clear and more comprehensive definition of WPM is given by the International Labour Organization (ILO).According to the ILO:"Workers' participation may, broadly be taken to cover all terms of association of workers and their representatives with the decision-making process, ranging from exchange of information, consultations, decisions and negotiations to more institutionalized forms such as the presence of workers' members on management or supervisory boards or even management by workers themselves".

WORKERS' PARTICIPATION IN MANAGEMENT BEFORE INDEPENDENCE

The workers' participation in management is not a novel and imported idea from outside. It can be dated as far back as 1920 when Mahatma Gandhi suggested participation of workers in management on the ground that workers contributed labour and brains while shareholders contributed money to the enterprise and that both should, therefore, share in its property. He said that there should be a perfect relationship of friendship and cooperation among them. For the unions,

he said that the aim should be to raise the moral and intellectual height of labour and, thus, by sheer merit, make labour master of the means of production instead of the slave that it is. It was at his instance that, in 1920, the workers and the employers in Ahmadabad Textile Industry agreed to settle their disputes by joint discussions and consultations.

Therefore, the Ahmadabad Agreement may be regarded as a milestone in the history of joint consultation i.e. participative management in India. Following this, some works committees were also set up in the Government Printing Presses and Railways. During the same period, such committees were also set up in the Tata Iron and Steel Company, Jamshedpur. Since then, there is no looking back in this direction. While supporting the need for works committees, the Royal Commission on Labour suggested that, to promoting industrial harmony and to avoid misunderstanding and settle disputes, not only works committees be set up, but strong trade unions be developed and labour officers be appointed. Along with the works committee, the Commission also suggested the establishment of a joint machinery to deal with the more general questions, and also to act as an advisory appellate body in respect of disputes which were confined to a single establishment. These recommendations of the Commission bore fruits with the provision of formal statutory machinery under the Bombay Industrial Relations Act, 1946 and the Industrial Disputes Act, 1947.

WORKERS' PARTICIPATION IN MANAGEMENT AFTER INDEPENDENCE

In fact, the first major step in the direction of workers' participation in management in India was the enactment of the Industrial Disputes Act, 1947 with the dual purpose of prevention and settlement of industrial disputes. The Industrial Policy Resolution, 1948 advocated WPM by suggesting that labour should be in all matters concerning industrial production. Article 43 A of the Constitution of India has provided for WPM in these words:

"The State shall take steps, by suitable legislation, or in any other way, to secure the participation of workers in management of undertakings, establishments or other organizations engaged in an industry".

The First Five-Year Plan and the successive plans emphasized the need for workers' participation in management. For example, the Second Five-Year Plan stressed the need for WPM in the following words:

"It is necessary in this context that the worker should be made to feel that in his own way he is helping build a progressive state. The creation of industrial democracy, therefore, is a prerequisite for the establishment of a socialist society".

The Government of India set up a 'Study Group on Workers' Participation in Management', in 1956, consisting of representatives of the government, employers, and workers to examine the system of WPM in the UK, Sweden, France, Belgium, West Germany and Yugoslavia and make recommendations for the Indian case.

OBJECTIVES OF THE STUDY

The central objective of the study is to determine the level of worker participation in management decision making in the specific objective are

1. To ascertain workers level of involvement in the decision making process of then- work places.
2. To establish the general attitude of workers towards worker participation in management decision making.
3. To determine factors which aid or hinder the observed level of participation?
4. To investigate the implications of worker participation to worker and their organizations.
5. To propose suggestions to overcome the encountered lapses.

METHODOLOGY OF THE STUDY

The present study being carried out by using secondary sources of data collection. It is an evaluative collected from various books, journals and internet sources. The adoption of these tools helped to collect both quantitative and qualitative data.

FORMS OF WORKERS' PARTICIPATION IN MANAGEMENT

The forms in which workers can participate in decision making process, varies from organization to organization. This variation may be due to patten of labour – management relations, level of workers involvement, different levels of management, etc. The following are the some famous form of participative management in India –

1. SUGGESTION SCHEME

Under this scheme the employees are motivated to make suggestions for improvement, because they work on grounds which are involved in their daily work life. They can suggest some new method of production or some new ways for particular work. Workers submit their ideas/suggestions in writing to the management which are scrutinized in their absence. Management may give some monetary or/ and non-monetary reward for their suggestions.

2. WORKS COMMITTEE

A works committee has an equal number of representatives of both employers and workers. It meets frequently for discussion on common problems of workers and management, after discussion, joint decision is made. Matters like, wage payment, bonus, training, discipline, etc. are normally discussed in such meetings. Works committees are extremely popular and effective in France and also in England. In India, The Industrial Disputes Act, 1947 provides for the setting up of bipartite works committees in industrial establishments employing 100 or more workmen to promote good relations between the employers and workmen. However, the works committees have not proved to be effective in India.

3. JOINT MANAGEMENT COUNCILS

The Joint management council was a voluntary body. These councils will consist of equal number of representatives of workers and management but number of workers representatives will not exceed twelve. The problems related to labour welfare, safety measures, grievances redressal, training, working hours, etc. are discussed in such meetings. The government of India take another step for encouraging workers participation in management. The Industrial Policy Resolution of 1956 and the Second Plan recommendations, a Scheme of Joint Management Councils (JMC) was introduced in 1958. The JMCs were intended to promote cordial relations between managements and workers and build up trust and understanding between them. The criterion for establishing JCMs in any industrial establishment is the unit must employ at least 500 workers.

4. WORKERS DIRECTORS

A scheme of inducting representatives of workers as directors on the boards of management of public enterprises was introduced in 1971. Under this scheme, a workers' representative become the active member of the board of directors. But due the lack of managerial qualities, less uniformity in union members and high infancies on the monetary issues, the decisions of the workers director considered as biased towards management.

5. CO-PARTNERSHIP

Under co-partnership form of participation, workers may purchase the share of the company, they working for. Hence they get voting rights and right of participation in the general meetings conducted for shareholders. They can also participate in the management through their elected representatives in the Board of Directors.

6. QUALITY CYCLE

Quality cycle is a voluntarily formed group, working for improvement activities at the work place. It is group of about 10 workers led by the supervisor or the senior worker. They meet about an hour every week to identify, analyses and resolve work related problems. It is comparatively new compact in India and spreading with a fast speed with positive results.

REVIEW STATUS**1. SUGAR MILLS IN HARYANA**

On the perspective of Workers Satisfaction and Involvement it is found that 92% of the workers always suggest something to their supervisor and out of that only 42% suggestions are followed up by their managers. 76% of workers opine that strike is never the method of solving problem. Again out of suggestions given by workers, in the area of welfare are followed 76%, in the areas of Working Environment 13%, Administration 7%, and New Technology 4% are followed.

2. PARTICIPATIVE MANAGEMENT IN TISCO

The Joint Consultative system in TISCO is a three tier set-up consisting of the Joint Department Councils (JDCs) at the base level-one for each major department and combined once for two or more smaller departments. The Joint Works Council (JWC) for the whole organization is at the intermediate level, the Joint Consultative Council of Management (JCCM) constituting the apex body.

3. NATIONAL THERMAL POWER CORPORATION IN INDIA

In the company Periodicity of meetings and forums of participation of Workers is 58%, Trade union leaders 68% Managerial personnel number 51% for monthly. Decision of the forums of participation of workers which are implemented important decision is only 57%. 60% Trade union leaders participate and Managerial personnel for important decision is 48%. Participation of workers relating to policy decisions 19%, the trade union participation is 15% and managerial personnel participate in policy decision 10%. It indicates the ignorance of the industry towards workers participation in management.

REASONS FOR FAILURE OF THE SCHEME OF WORKERS' PARTICIPATION IN INDIA

Being a developing country, India faced so many problems. Its planning section is very good but when it comes to implementation part, the results are not satisfactory. If we talk about the workers participation, it is relatively a new concept in management. There are so many reasons behind the failure of the concept of participation. It varies from organization to organization. It largely depend upon the size of the organization, number of unions formed, management approach towards the participation, employees willingness to participate, educational qualification, lack of uniformity in workers, political influence, etc. But some of the most common and immersing reasons are mention below-

1. The management had not showed great enthusiasm for making participation effective, because they think that the workers had not competent to take decisions. One can be observed that "managers ... do not think that participation will unleash the creative talents of their subordinates. On the contrary, they seem to have a rather low opinion about their subordinates' ability to understand and participate in organizational decision-making."
2. The workers' representative faced the problem of role conflict. On the one hand, he is required to share the managerial responsibility and he has to behave as the leader for workers on the other hand. This creates difficulties in effective participation.
3. This scheme is also not free from political interference. Normally, workers' representatives are active members of some political parties. Many a time, political parties influence the interest of the workers, which brings down the effectiveness of the scheme of participation.
4. In India, more emphases are given to the compensation related issues. Which lead to the conflict between the basic and esteem needs of the workers. Further this adds a point in ineffective management of the scheme.

LIMITATIONS OF PARTICIPATION

- Employee's Participation at all levels will not be Successful. Since technology and organization in today's modern world are so complex that generalized opinion does not work, a specialized opinion does not work, a specialized opinion is required to get the solution.
- Trade unions are also not taking active role in promoting participative management in the industry as they think their significance will get less
- Employers especially in a country like India where the concept of 'Malik and Naukar' is quite prominent in the minds of employers dissuade them to share powers with the worker's representatives.
- Few managers consider this activity just a formality actually it has no relevance or meaning. Role of power works everywhere 'a Might is Right' the one who has power of money, Knowledge skill will always be right as compared to the one who does not.

CONCLUSION

Workers' Participation in Management has assumed great importance these days because it reduces industrial unrest and helps in dispelling employees misunderstanding about the outlook of management in industry. It also influences efficiency in various direct and indirect ways. The management with the help of workers ensures that they are capable of taking fruitful decisions regarding policy making, service conditions, productivity, manufacturing and administration and supervision. Workers' participation provided a channel for communication between workers and management, which in turn had led to the improvement of worker-management relations in the whole enterprise. Better worker-management relations had led to higher productivity. For any scheme of workers' participation to succeed, there must be an effective two-way communication and exchange of information between the management and the workmen.

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THE EFFECT OF HEDONIC SHOPPING MOTIVATIONS ON IMPULSE BUYING TENDENCY AND THE MODERATING ROLE OF BUYING POWER

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ABSTRACT

There are many people who do shopping just for the sake of fun not because they have any need for it. This study emphasises on just those factors hedonic shopping motivations that lead to impulse buying tendency (IBT). Furthermore, it also examines the effects of buying power on the relation between hedonic shopping motivations and impulse buying tendency (IBT). This study was conducted on the general population to test the model by using simple random sampling. A sample of 200 customers was taken from the population and a statistical analysis was conducted using SPSS to test the hypothesis. This paper confirms that hedonic shopping motivations have a positive impact on impulse buying tendency & buying power of the customer certainly strengthens or weakens the relation between hedonic shopping motivations and impulse buying tendency (IBT). This research was limited to a small sample size which was taken from the general population. This study can better help us understand the hedonic customers. It can also help us create an understanding of customer buying behaviour and the improvements that are required to create Impulse buying tendency (IBT).

KEYWORDS

buying power, consumer behaviour, hedonic shopping motivations, impulse buying, shopping behaviour.

INTRODUCTION

Every company's share of wallet is significantly increasing day by day because customers are frequently buying impulsively for one reason or another. There are a significant amount of people around the world who have the tendency to shop without any reason and this can either be due to compulsive or impulsive buying behaviour. The fact is that both these behaviours have some factors behind them that lead to such extremes. Happy or sad it makes no difference, either way it will lead the customer into buying something even though there is no need for it. Buying behaviour of this sort is only shown when financial consequences are not considered (Stern, 1962; Sharma et al., 2010).

As far as impulse buying is concerned, it is known as "unplanned buying" (Stern, 1962; cf. Cobb and Hoyer, 1986). Many researchers during the past four decades have tried to narrow the gap to examine the reasons for the occurrence of this phenomenon. The question still remains, why does impulse buying occur? What are the factors that influence impulse buying? Does it have anything to do with money? Does it depend on the mood of the customer? Impulsive or compulsive, which factor dominates the buying behaviour? All this has only led us to believe that Impulsive buying occurs as part of a wider psychological functioning.

Recent studies have shown the effect of hedonic shopping motivations on impulsive buying and that they have a positive relation, and also, show a high probability that hedonic shopping motivations lead to impulsive buying (Hilal Ozen Nil Engizek, 2014; Babin et al., 1994; Hausman, 2000; Wolfenbarger and Gilly, 2001; Arnold and Reynolds, 2003; Zhou et al., 2007).

This study focuses on the effect of buying power on the hedonic shopping motivations and impulsive buying tendency (IBT). A new concept of "Money in the pocket; Shop till you drop" is also introduced which gives a meaning to the Impulsive buying behaviour of the customer. Shopping has become a probable trend these days; most people like to spend their extra time browsing the stores for no reason. Having "money in the pocket" makes it very difficult to control your emotions and not to buy things that you see while browsing around. Whereas, researches have led us to believe that emotions are dominant in influencing impulse buying and that hedonic shopping motivations result to impulse buying behaviour (Yu and Bastin, 2010). Therefore, if you have the buying power all that remains is a small amount of motivation which will lead you to an Impulse buying tendency (IBT).

It also answers the following questions:

- Impulsive buying behaviour of different genders according to their buying power.
- Effect of hedonic shopping motivations on impulse buying tendency (IBT).
- Desirability (need/want) of the product and its relation with Impulse buying tendencies.
- Impact of Hedonic shopping motivations on Impulse buying tendency (IBT).

LITERATURE REVIEW

IMPULSIVE BUYING TENDENCY (IBT)

Often known as unplanned buying, impulse buying was initially defined as “any purchase which a shopper makes but has not planned in advance” (Stern, 1962). Many years afterwards Rook (1987) took over and re-defined impulse buying as “when a consumer experiences a sudden, often powerful and persistent urge to buy something immediately”. A decade later the definition was slightly changed and extended to “impulse buying is a sudden and immediate purchase with no pre-shopping intentions either to buy the specific product category or to fulfil a specific buying task” (Beatty, S.E. and Ferrell, M.E. 1998).

Researchers throughout the years gave many definitions of “Impulse Buying” and extended its characteristics one after the other. Some argued that these purchases may be due to discounts, low cognitive control and emotions and that they happen without considering financial consequences (Sharma et al., 2010 and Stern, 1962).

Research has led us to believe that impulse buying has more to do with the human characteristics which effect the decision of the customer at the time of purchase, which is known as Impulsive buying tendency. Impulse buying tendency was also called “impulse purchase” by Beatty and Ferrell (1998). Rook (1987) happened to think of consumer impulsivity as a lifestyle trait while Verplanken and Herabadi (2001) argued that it also varies from person to person. “A person could have an urge, but s/he is not necessarily have to do it, several reasons may stop the consumers’ alteration from impulsive buying tendency to impulse action” (Hilal Ozen Nil Engizek, 2014).

HEDONIC SHOPPING MOTIVATIONS & IMPULSE BUYING TENDENCY (IBT)

The emotional needs of individuals for an enjoyable and interesting shopping experience are related to hedonic shopping motivations (Bhatnagar & Ghosh, 2004). Sarkar (2011) explained that “in hedonic consumption, different types of emotional feelings, which are both physiological and psychological, play major roles”. People that are highly involved in shopping are due to the environment (Hopkinson & Pujari, 1999). A very significant study of the relation between Hedonic shopping motivations and impulse buying tendency was drawn by Hilal Ozen Nil Engizek (2014) and Sarkar (2011). Many statements have concluded the same in previous studies, resulting in the dimensions of hedonic motivations. These dimensions namely adventure shopping, value shopping, idea shopping, social shopping and relaxation shopping. Thus, the hypothesis has been drawn:

H₁: Hedonic shopping motivations have a positive impact on impulse buying tendency.

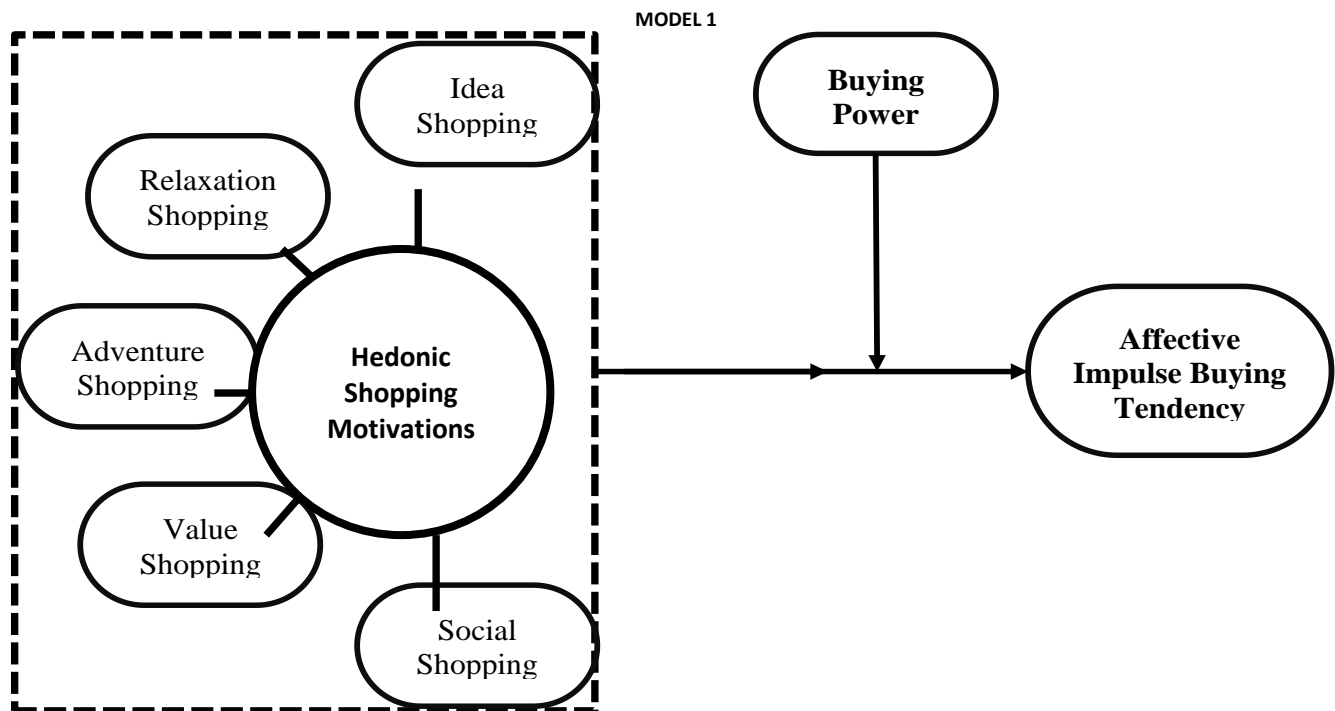
BUYING POWER & IMPULSE BUYING TENDENCY (IBT)

It is the extra amount of money that is placing around in the pocket of the customer at the time of purchase. The relation between Impulse buying tendency and buying power exists on the perspective that the amount placing around in the pocket is high or low. Higher the amount of savings, higher the tendency to buy whatever urges the customer. Simply speaking, people that are from the lower class do not really have any extra money or the buying power to buy impulsively whereas, people that are from the middle class and above can afford to make impulsive purchases. “A variable that is likely to positively influence impulse purchasing is the amount of budget or extra money the individual perceives she or he has to spend on that day” (Beatty, S.E. and Ferrell, M.E. 1998). The moderating effect of buying power between hedonic shopping motivations and Impulse buying tendency is a first, although researchers in the past have calculated the effect of buying power on impulse buying with other independent variables, taking buying power as a moderator in many cases. Buying power as a moderator between HSM and IBT is a logical explanation of the fact that no matter how much people are excited and enjoying their shopping, a person’s ability to purchase something is still dependent on the availability of money in his pocket. Hence, the following hypotheses were developed:

H₂: Buying power has a positive impact on impulse buying tendency.

H₃: Buying power will moderate the positive relation of hedonic shopping motivations on impulse buying tendency such that the relation will be stronger when buying power is high.

RESEARCH MODEL



METHODOLOGY

SAMPLE & POPULATION

Many people shop just for the sake of shopping and some just shop because they have to for the sake of living. These differences among people and their wants or preferences vary due to many demographic as well as psychological reasons. To study all of these factors all together is a big task so we have mainly focused on gathering randomly from people. Random sampling technique was used by uploading the questionnaire on social media websites in communities that consisted of people from around Pakistan, collecting data from the general population without segmenting through any means. The questionnaire was posted on facebook communities from around Pakistan, mainly the replies came from the community of university of Sargodha and communities of Bahawalpur region. A total of 109 questionnaires were received back in which 24 questionnaires were not properly filled. The proper response rate was 77% considering the questionnaires that were received. The participants were assured of their confidentiality and given the right to answer at their own will and convenience.

EXHIBIT 1

DEMOGRAPHIC RESULTS									
Gender		Marital Status			Qualification				
Male	Female	Single	Married	Divorced	Graduate	Post-graduate	MPhil	Ph.D	
85%	15%	79%	19%	2%	35%	44%	20%	1%	
AGE GROUP					Work Situation				
18-25	26-35	36-45	46-55	56-65	Above 65	Employed	Unemployed	Retired	Students
58%	35%	4%	2%	-	1%	40%	11%	-	49%
INCOME LEVEL									
< than 20,000	20,000-30,000	30,000-40,000	40,000-50,000	50,000-60,000	Above 60,000				
50%	9%	9%	7%	9%	16%				

The sample was dominated by male participants by 85% and the remaining 15% were females in which 79% were single, 19% were married and 2% were divorced. According to their educational level 35% were Graduates, 44% were Post-graduates, 20% were MPhil and 1% were PhD in which 40% were employed, 11% were unemployed and 49% were students (with or without a job). Income level of 50% of the participants was less than Rs. 20,000 and another 18% of the people were between the 20,000-40,000 regions, remaining 32% of them had earnings above Rs. 40,000. This mainly was due to the fact that most of the participants were aged between 18-25 years which counted for a massive 58%.

SCALES/MEASURES APPLIED

A "5" point Likert scale was used for all the questions, in which "1" was to represent Strongly Disagree and "5" represented Strongly Agree.

HEDONIC SHOPPING MOTIVATIONS

This variable was measured through "15" questions which were distributed for each of the Hedonic shopping motivations five dimensions.

- Adventure shopping
- Value shopping
- Idea shopping
- Social shopping
- Relaxation shopping

They were taken from Hilal Ozen Nil Engizek (2014) study, which combined the online shopping context from Arnold and Reynolds (2003) and To et al. (2007) hedonic shopping motivations scale to create this scale. One of the questions was "To me, shopping is an adventure". The cronbach alpha for this variable was 0.836.

BUYING POWER

Buying power was measured by "3" questions developed by Beatty, S.E. and Ferrell, M.E. (1998). Sample question, "I feel that I have enough extra money on this shopping so that I can splurge a little if I find something I really like". The cronbach alpha for this scale was 0.406.

IMPULSE BUYING TENDENCY (IBT)

Verplanken and Herabadi's (2001) Impulse Buying Tendency scale of "7" questions was incorporated to measure this variable. Sample question, "I sometimes buy things because I like buying things, rather than because I need them". The cronbach alpha for this scale was 0.616.

CONTROL VARIABLES

Through one way ANOVA analysis qualification, work situation and age group were identified as control variables for Impulsive Buying Tendency and therefore we entered in step one of moderated regression analysis.

RESULTS

TABLE 1: MEANS, STANDARD DEVIATIONS, CORRELATION AND RELIABILITIES

	Mean	SD	1	2	3	4	5	6	7	8	9
1 Gender	1.14	0.35									
2 Marital Status	1.21	0.44	.268*								
3 Qualification	1.87	0.77	-.020	.082							
4 Work Situation	2.56	1.43	-.019	-.307**	-.161						
5 Income	2.68	1.98	.031	.324**	.231*	-.538**					
6 Age Group	1.55	0.84	.136	.616**	.260*	-.444**	.465**				
7 HM	3.26	0.61	-.006	-.033	-.061	.168	-.055	.019	(.84)		
8 BP	2.81	.647	.174	-.037	.189	-.221*	.249*	-.051	-.010	(.41)	
9 IBT	3.39	0.60	-.089	-.216*	-.305**	.156	-.155	-.298**	.435**	-.079	(.62)

*. Correlation is significant at the 0.05 level (2-tailed).

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

The table shows that Hedonic Motivation has a positive correlation with Impulse Buying Tendency (0.435, p<.01) on the other hand Buying Power has a negative degree of association with Impulse Buying Tendency (-.079, p>.05)

REGRESSION ANALYSIS

Moderated regression analysis was performed to test the hypothesis control variables were entered in step one followed by independent and moderator variable in step two, interaction term, a product of Independent and moderating variable were entered in step three.

TABLE 2: RESULTS FOR MAIN EFFECTS AND MODERATED REGRESSION ANALYSES

Predictors	Impulsive Buying Tendency		
	β	R ²	ΔR ²
STEP 1:			
Control Variables		0.149	
STEP 2:			
Hedonic Shopping Motivations	0.404***		
Buying Power	0.062ns	0.333	0.184***
STEP 3:			
HM x BP	-0.044ns	0.334	0.001ns

*p < .05, **p < .01, ***p < .001, ns = not significant

Results from the analysis show Hedonic Shopping Motivations had a positive impact on Impulse buying tendency (β=0.404, p<.001). This is in line with our hypothesis, thus H₁ is accepted on the other hand Buying Power had an insignificant impact on Impulse buying tendency (β=0.062, p>.05) leading to the rejection of H₂. Moderated regression analysis indicated that the combined effect of Hedonic Motivation and Buying Power on Impulse Buying Tendency was insignificant (β=-0.044ns, p>.05) hence, H₃ was also rejected.

DISCUSSION

This study explore the regions of hedonic motivation and its involvement with impulse buying tendency, although previous studies have been conducted for the same purpose but here buying power of the customer is introduced as a moderator to intervene in the relation between the two. In the past buying power has been involved with impulse buying but not through hedonic motivations. Although the results in this study suggested otherwise, as H₂ and H₃ were rejected because of inappropriate data collection method that was used. It is still common sense to note that buying power has an effect individually on impulse buying tendency and it moderates the effect between the two variables that we studied. H₁ was accepted where it showed positive and significant impact on impulse buying tendency. Hedonic shopping motivations have been considered to intervene in the impulse buying tendency because its dimensions consist of human emotions which totally consist of physiological and psychological needs of the customer.

IMPLICATIONS

Marketers from around the world can benefit from these facts and consider influencing those people who are potential buyers in terms of their buying power. They can also be segmented with respect to their savings and then targeted as in such a way that it creates an urge for them to buy impulsively. To better know the customers and their wants for a shopping environment that makes them feel involved in the shopping experience both psychologically and physiologically. Events at shopping malls and big stores can be arranged to make use of their emotions and to create that urge for impulsive buying. Managers can focus on providing assistance and ease to specially selected customers that are known to spend time in the shop and wonder for shopping and spending their free time by browsing. Extra information can be provided to them about the products and discounts and coupons can be given.

LIMITATIONS AND FUTURE RESEARCH

The sample size was very small and the sample collection was from online participants which could not be self-administered. Because of the nature of the questions and tough English used many participants did not understand the meaning of the questions. Therefore, it should have been translated and then distributed. The sample population was dominated by male participants who have less shopping experience with respect to the females in terms of shopping. Hence, the study should have been focused on female participants. Most of the participants were students and unemployed who had either no salary or less than 20,000 rupees salary. This indicates that the study should be conducted with a sample of those people who have a salary of more than Rs.40,000. With that buying power may have the desired impact on impulse buying tendency. The study had many demographic relations which were left out and could have been studied, for instance monthly savings could have contributed in the study to show the relation of extra amount of money in the pocket to the changing nature of people with that respect. Impact of many other demographics can also be related to impulse buying tendency which were controlled in this study (age, gender, income, social status, etc.).

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A CRITICAL ANALYSIS OF COMMERCIAL BANKS PERFORMANCE IN GHANA

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ABSTRACT

The introduction of universal banking law has brought changes over the years, with its stiff competition in the banking industry. Commercial banks are no exception to the modern changes in ensuring adequate information towards their organizational goals. This study seeks to assess the performance of commercial banks in Ghana, using Ghana Commercial Bank (GCB) Limited as a case study. Secondary data obtained from the published annual reports of GCB Limited covering the period of three (3) years from 2010 to 2012 which includes the financial statements of the bank was used as the main source of data for this study. The study used the SPSS software to run multiple Regression analysis by examining the inter-relationship between bank performance (Dependent variable) and a number of explanatory (Independent) variables or key determinants of banks financial performance such as Total Loans and Advances, Customers Deposits, Total Assets, Profit after tax and Net Income. The study revealed that various indicators over the past three years (2010-2012), have performed well and has contributed to the growth of the bank. The GCB was not topping in all the indicators when compared with other banks in the industry, but have contributed to the industry at large. The study also revealed that Profit after tax and Total loans and advances served as the major indicators of Ghana Commercial Bank performance for the period under study.

KEYWORDS

commercial bank, financial intermediary, employee's performance appraisal, customer deposits mobilization, loans and advances.

1.1 BACKGROUND OF THE STUDY

The strength and sustainability of a country's banking system is one of the key determinants for its economic development, especially in countries with bank-based financial systems (UNDP, 1994). As a result, the performance of the banking system is always an area of interest and concern to government regulators and academic researchers.

The Ghanaian banking industry is one of the service industries that are significantly contributing to the growth of the economy (Ghana Banking Survey, 2013). It plays a vital role in capital mobilization and also grants financial facilities to businesses that seek to grow and develop. The Banking sector has undergone significant transformation and continues to improve with new regulations and guidelines seeking to maintain stability. This has made the sector more efficient, innovative, competitive and profitable. The transformation of the industry has resulted in an emergence of technologically innovative products and services (World Bank report, 2013). Banks have employed these innovative products and services in their operations so as to provide customers with easy accessibility of their services. The banking industry has immense prospects in both the local and international arena. For the banks to actual demonstrate these prospects in practice and position themselves strategically for quality effective service delivery, it is critical for them to make information available in all aspects of their operations to the general public.

In view of the above, the banking industry has made a great effort in recent times by making information regarding their performance available in the public domain (Ghana Banking Survey, 2013). Access to relevant information on issues affecting their performance is pertinent for their development. Information therefore has become a powerful tool in modern development; and banks would have to ensure accuracy and constant flow of information with regards to their operations and performance to the public in order to build confidence in the clients and investors.

Information access based on sound judgment of performance especially to the finances of a business is relevant to all stakeholders, especially potential investors to make sound and informed decisions.

This study therefore used banks performance indicators such as Customer Deposits mobilization, Loans and Advances, Net Income, Profit after tax, and Total Assets to measure the financial performance of the Ghana Commercial Bank (GCB) Limited.

2.0 LITERATURE REVIEW**2.1 THEORETICAL LITERATURE**

In theory, performance indicators are categorized into three indicators: bank-specific, industry-specific and macroeconomic. Bank specific indicators include: growth in bank assets, capital adequacy, operational efficiency, and liquidity. The common measure for industry-specific representative used in various studies is bank-concentration. While on the other hand, the key macroeconomic variables include: growth in GDP, GDP-per-capita inflation expectation, interest rate and its spread.

Aguinis (2005) argues that performance in any organization is determined by three major factors namely: (i) Declarative knowledge which is information about facts and things including information regarding a given task's requirement, labels and principles; (ii) Procedural knowledge which is a combination of knowing what to do and how to do it and includes cognitive physical, perceptual, motor and interpersonal skills and (iii) Motivation which also involves three types of behaviours; choice to expend effort and choice to persist in the expenditure of that level of effort. He establishes an equation for performance as the product of these three determinants as:

Performance = Declarative knowledge × Procedural Knowledge × Motivation

Therefore if any of the variables is zero, then performance is zero and low score in any of the variables will definitely lead to low performance.

PERFORMANCE MEASUREMENTS

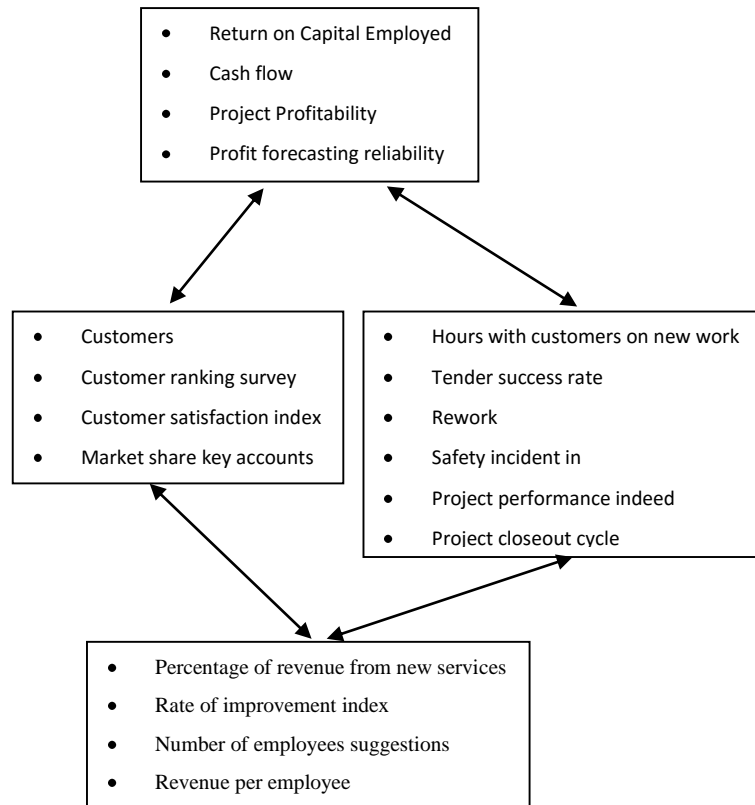
A performance measure system enables enterprise to plan, measure and control its performance according to a pre-defined strategy. Some of the major performance measurement systems in use today are profiled below.

- The Balance Scorecard
- Economic Value Added (EVA)
- Customer Value Analysis/Customer Relationship Management
- Performance Prism developed by Adams, Andy and Mike.

BALANCED SCORECARD

The Balance Scorecard is the most widely applied performance management system. The Balance Scorecard measure performance across a number of different perspectives namely; financial perspective, a customer perspective, an internal business process perspective and an innovation and learning perspective. Through the use of various perspectives, the Balance Scorecard covers both leading and lagging performance measure, thereby providing a more balanced view of company performance. Leading indicators include, measures such as customer satisfaction, new product development, on time delivery, etc. traditional lagging indicators include; financial measures such as revenue growth and profitability (Kaplan & Norton, 2002). The Balanced Scorecard performance management systems have been globally adopted because this approach enables organizations to align all level of staff around a single strategy so that it can be executed more successfully (Kaplan & Norton, 2002). Example of a Balanced Scorecard is shown below:

Fig. 1



Source: Kaplan and Norton (2002)

Some benefits a firm can obtain from properly implementing the Balance Scorecard include:

- Translation strategy into more easily understood operational metrics and goals.
- Aligning organizations around a single, coherent strategy
- Making strategy everyone’s everyday job, from CEO to the entry level employee.
- Making strategic improvement a continual process
- Mobilizing change through effective leadership

ECONOMIC VALUE ADDED (EVA)

EVA can be defined as an overall measure of organizational performance. EVA is both a specific performance measure and the basis for a larger performance measurement framework. EVA is designed to give managers better information and motivation to make decisions that will create the greatest share holder wealth. Since EVA is a single metric, is complementary to the BSC framework (for e.g.; as a financial perspective measure) Customer Value Analysis and Customer Relationship Management (CVA)

CVA and Customer Relationship Management (CRM) techniques are enabling businesses to improve performance, to measure that improvement and to focus a firm on the value of its customers. Moreover, CVA and CRM technologies are providing firms with better data integration and hence, better measurement regarding customers.

- Customer Value Analysis and Customer Relationship Management techniques are enabling businesses to improve performance, to measure that improvement and to focus a firm on the value of its customers. Moreover, CVA and CRM technologies are providing firms with better data integration and hence, better measurement regarding customers.
- Performance Prism. The performance prism is a thinking aid which seeks to integrate fire related perspectives and provide a structure that allows executives to think through the answers to fire fundamental questions.
- Stakeholder Satisfaction; who are our stakeholders and what do they want or need?
- Stakeholder Contribution; what do we want and need from our stakeholders?
- Strategies: what strategies do we need to put in place to satisfy these sets of wants and needs?
- Process: what process do we need to put in place to satisfy these sets of need and wants
- Capabilities; what bundles of people, practices, technology and infrastructure- do we need to put in place to allow us to operate our processes more effectively and efficiently?

Together, these five viewpoints provide a comprehensive and integrated framework for managing organizational performance and by answering the related questions, organizations can build a structured business performance model.

According to Encyclopedia of Business (2011), Performance measures of banks can be grouped into two; those that relates to results (such as competitiveness and financial performance), and those that focus on the determinants of results (inputs such as resource utilization, innovation and flexibility).

Chen and Silverthone (2008), identify three types of performance. One is the measure of output rates, amount of sales over a given period of time, the production of a group of employees reporting to managers. The second type of measure of performance involves ratings of individuals by someone other than the person whose performance is being considered. The third type of performance measures is self appraisal and self-ratings. As a result, the adoption of self-appraisal and

self-rating techniques are useful in encouraging employees to take an active role in setting his or own goals. Thus, job performance measures the level of achievement of business and social objectives and responsibilities from the perspective of the judging party (Hersey and Blanchard, 1993).

PERFORMANCE APPRAISAL

Employees want to know how well they perform on their jobs. A simple statement, almost axiomatic in any organization, yet it has probably caused more controversy, applied research and practical advice than any other assertion in the history of management writing and thinking (Kavangh, 1997). Employees want to know how well they are performing and interested in getting feedback to ensure that they work towards the goals of the business. The assessment of employees helps the business to grow, fill in vacant positions, prepared employees for training and development.

Performance appraisal is a process within the overall performance management process (Dowling et al., 1999), and is defined as the "the evaluation of an individual's work performance in order to arrive at objective personnel decisions" (Robbins et al., 2000).

PERFORMANCE APPRAISAL PURPOSE

Taylor and Wherry (1951), proposed that ratings collected for administrative purpose would be more lenient than ratings collected for research or developmental purposes. The majority of the research on performance appraisal purpose has focused on the rater, some work has also been conducted on rater effects (Boswell & Boundreau, 200, 2002).

There are numerous methods to measure employee's performance appraisal but some of these methods are not suitable in some cases. Effective appraisal systems should address clarity, openness, and fairness; recognize productivity through rewards; and be cognizant of appraiser leadership qualities (Winston & Creamer, 1997).

DETERMINANTS OF BANK PROFITABILITY

Several variables are used as determinants of bank profitability. We can essentially divide bank operations into two groups based on the variables used to measure bank performance (dependant variables). In most studies, bank performance is measured by the level of profitability. The profitability measures include the ROE (Return on Equity), ROA (Return on Assets), and Profit Rate (Rp). In most bank studies, emphasis is placed on measuring profitability in terms of ROE and ROA. Kecton and Matsunaga (1985) state that rate is especially useful in measuring changes in bank performance overtime since banks consist of income and expense components. Several studies in banking industry have used both ROE and ROA, (Agu, 1992; Civelek & Al-Alami 1991) to measure profitability. However, (Smirlock, 1991) found results based on ROA to be statistically inferior and justified the relative performance of ROE on the bases that it reflects the efforts of managers interested in maximizing shareholders' wealth. Nonetheless, other studies have used ROA as a measure of profitability in banking (Evanoff & Fortier, 1999; Nolyneux & Forbes, 1995).

The basic argument in favor of profitability measures in banking is that banks are essentially multi-product firms and the use of profitability measures eliminates problems associated with cross-subsidization between products and services.

2.2 EMPIRICAL LITERATURE

Several studies have been conducted on the performance and efficiency analysis of banks, for which a few have been received as shown below;

In general, the banking literature finds that bank performance depends on both specific and macroeconomic factors. In terms of bank specific factors, credit risk has been found to be negatively linked to performance of banks (Miller and Noulas, 1997). Deficient risk management functions and poor asset quality feed into higher amount of unpaid loans which negatively impact bank performance.

Almazari (2011) in his study measured the financial performance of some selected Jordanian commercial banks for the period 2005-2009. The study used simple regression analysis using bank size, asset management, and operational efficiency as independent variables and dependent variable was taken as financial performance represented by; return on assets and interest income. The study concluded that banks with higher total deposits, credits, assets, and shareholders' equity does not always result in better profitability performance.

Siddique and Islam (2001) undertook a study on commercial banks of Bangladesh for the financial year 1980-1995. The study revealed that the Commercial Banks, as a whole, are performing well and contributing to the economic development of the country. The average profitability of all Bangladeshi banks collectively was 0.09% during 1980 to 1995. The study concluded that although banking sector contributes to the national economy as well as to the individual organization, however the performances of different categories of banks were not equally attractive.

Ashraf and Rehman (2011) compared and analyzed performance of Islamic banking and conventional banking system in Pakistan by using financial measures. The study analyzed the financial performance of selected banks from five different dimensions; i) Profitability, ii) Earnings, iii) Liquidity, iv) Credit risk and v) Asset activity for the period 2007-2010. The study concluded that the performance of Islamic Banks in Pakistan is lagging behind on the basis of performance because of increased operating cost and inefficiency from the part of management.

Kouser and Saba (2012) compared the performance of Pure Islamic banks, mixed banks and conventional banks in Pakistan using CAMEL rating. The study revealed the following facts i) Islamic banks have adequate capital and have strong asset quality compared to other banks in sample, ii) Islamic banks in general have more competent management compared to conventional banks, iii) the earnings of Islamic branches of conventional banks are greater than other banks.

Nimalathasan (2008) undertook a comparative study of financial performance of banking sector in Bangladesh using CAMELS rating system. The study was done on 6,562 Branches of 48 Banks in Bangladesh for the financial year 1999-2006. The study revealed that out of 48 banks, 3 banks were rated O1 or Strong, 31 banks were rated O2 or satisfactory, 7 banks were rated O3 or Fair, 5 banks were rated O4 or Marginal and 2 banks obtained O5 or unsatisfactorily rating. 1 Nationalized Commercial Bank (NCB) had unsatisfactorily rating and other 3 NCBs had marginal rating.

Chowdhury (2002) in his study portrayed the state of banking industry of Bangladesh. In his study he emphasized that performance of banks requires knowledge about the profitability and the relationships between variables like market size, bank's risk and bank's market size with profitability. The study shed light on the importance of performance evaluation of commercial banks in today's world. The study concluded that the banking industry in Bangladesh is experiencing major transition for the last two decades. The author recommended that the banks should endure the pressure arising from both internal and external factors and prove to be profitable.

Akhtar and Ahmed (2011) reported the significant role of capital adequacy ratio, operating efficiency, asset management and GDP that are influencing the profitability of commercial banks in Pakistan while the impact on bank-specific and macro-economic factors on profitability.

Al-Tamimi (2009) determined some significant factors influencing performance of the UAE Islamic and Conventional National banks from 1996-2008. Using regression analysis, specifically ROE and ROA as dependent Variable, the researcher concluded that liquidity and concentration were the most significant determinants of conventional national banks.

Sufian (2009) investigated the determinants of commercial banks performance using profitability in a developing economy, case study Malaysian Financial sector during the period 2000-2004. The results showed that higher credit risk and higher loan concentration of Malaysian banks face lower profitability level. On the contrary, Malaysian banks with higher level of capitalization, higher income from non-interest sources, and higher operational expenses face higher profitability level.

Tarawneh (2006) in his quest to investigate the performance of commercial banks, divided the commercial banks in Oman into unified categories depending on their financial characteristics revealed by financial ratios. Using simple regression analysis, the following were determined: the effect of asset management, operational efficiency, and bank size on the financial performance of five Omani commercial banks with more than 20 branches. The results indicated that bank with higher total capital, deposits, credits, or total assets do not always represent a better performance measure of banks.

Duncan and Elliott (2004) in determining efficiency and financial performance among Australian financial institutions, showed that interest margin, return on assets, and capital adequacy are the major factors enhancing bank performance which are positively correlated with customer service quality.

According to (Zuttah, 2004) on her work on comparative study using Standard Chartered Bank Ghana and Ghana Commercial Bank Limited on banks performance sought to find out whether bank performance had improved over the period of 1990-2003 in today's highly competitive banking environment since there are more banks in the system now than ever due to the licensing of more private banks. The study also sought to determine which banks have done better job, why and how. The result of the analysis showed that the operational procedures management of the banks has had a significant impact on the financial position of the two

banks studied. It also showed that the performance of SCB and GCB were reflection of the good management and shows that both are highly competitive banks but SCB is more competitive than GCB

Recent studies in Islamic banking (Bashir and Darrat 1992; Bashir, Darrat and Suliman, 1993) have supported the size-performance relationship in the absence of guaranteed nominal returns, large size (measured by capital ratio) was found to impact the banks performance positively. A high capital-asset ratio enables Islamic banks to reduce the financial risk. Moreover, studies of banks behavior (Galloway, Lee and Roden, 1997; Kahane, 1997) have revealed that, without deposit insurance, low capitalization may trigger a “credit crunch”. Capitalization also plays the role of collateral and hence reduces the consequence of adverse selection.

3.0 RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

Saunders et al. (2007), defines research design as the general plan of how the research questions would be answered. It is the conceptual structure within which research is conducted. It constitutes a blue print for the collection, measurement and analysis of data. The research design for this study is survey research design to assess the financial performance of GCB Limited by examining the relationships between the performances of the commercial banks against their performance indicators. This therefore makes the research to be quantitative in nature. Secondary data which includes the financial statements of the bank serves as the main source of data for this study obtained from the published annual reports of GCB Limited covering the period of three (3) years from 2010 to 2012.

3.2 SAMPLING AND POPULATION

3.2.1 POPULATION

Sekeran, (1990) reported that population refers to the entire group of people, events or things of interest that the researcher wishes to investigate. Population refers to all items under consideration in any field of inquiry. The targeted population for this study is the commercial banks in Ghana. However, due to time constraint in using the entire population, the study used only a sample of the population.

3.2.2 SAMPLING

Sekeran, (1990) defines a sample as a portion of the population that has attributes as the entire population. In conducting research, it is often impossible, impracticable or too expensive to collect data from all the potential units of analysis (population). Hence a smaller number of units (sample) are often chosen to represent the whole population. The study concentrated on Ghana Commercial Bank Limited as the sample.

3.2.3 SAMPLING TECHNIQUE

The sampling method used for this study is the convenient sampling, which belong to the non-probability sampling techniques. Convenience sampling involves selecting sample elements that are most readily available to participate in the study and who can provide the required information (Saunders et al. 2007). This method enabled the researchers to conveniently gather data only from GCB Limited which proved the right information needed to achieve the objectives of this study.

3.3 DATA ANALYSIS AND PRESENTATION

The study used both descriptive and inferential statistics for the data analysis. The descriptive statistics were mainly tables and charts to explore the pattern of the data. The variables of interest to the researchers were Total Loans and Advances, Customer Deposit mobilization, Total Assets, Profit after tax and Net Income which the researchers used for the inferential analysis.

The study used the SPSS software to run multiple Regression analysis by examining the inter-relationship between bank performance (**Dependent variable**) and a number of **explanatory (Independent) variables** or key determinants of its financial performance such as Total Loans and Advances (x1), Customers Deposits (x2), Total Assets (x3), Profit after tax (x4) and Net Income (x5).

Mathematically:

$$Y (\text{bank performance}) = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + \epsilon;$$

Where Y is the bank performance, the dependent variable,

X1 is the Total Loans and Advances

X2 is the Customers Deposits

X3 is the Total Assets

X4 is the Profit after tax

X5 is the Net Income

Where b0, b1, b2, b3, b4, b5, are unknown constants whose values are estimated by the regression analysis from the SPSS output

ε is the random error term

4.0 ANALYSIS, RESULTS AND DISCUSSION

This section analysed and discussed the findings arising out of the data collected. Both descriptive and inferential statistics are conducted and appropriate inferences are made from the analysis.

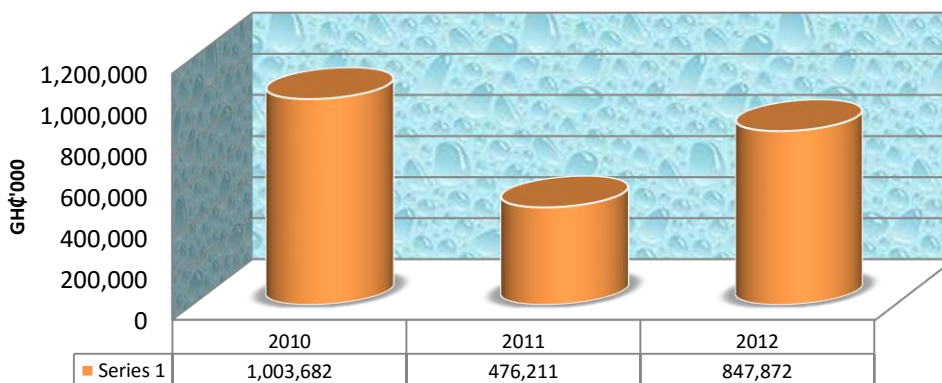
4.1 DESCRIPTION OF THE RESULTS

4.1.1 HOW DOES GCB LIMITED PERFORM FINANCIALLY OVER THE PAST THREE YEARS (2010-2012)?

The performance of GCB Bank Ltd was assessed based on banks performance indicators including: Total Loans and Advances, Customer Deposit mobilization, Total Assets, Profit after tax and Net Income. Based on the analysis of the data, the following results were made.

From Fig.4.0, the bank achieved much improved financial results in terms of total loans and advances in 2012 as against 2011 from 2010. In 2010, the group’s total loans and advances was GH¢1,003.682 million over GH¢476.211 million in 2011 which shows a 52.6% decrease in its total loans and advances. The bank was able to increase their total loans and advances in 2012 by 78% from GH¢475.211 million in 2011 to GH¢847.872 million in 2012.

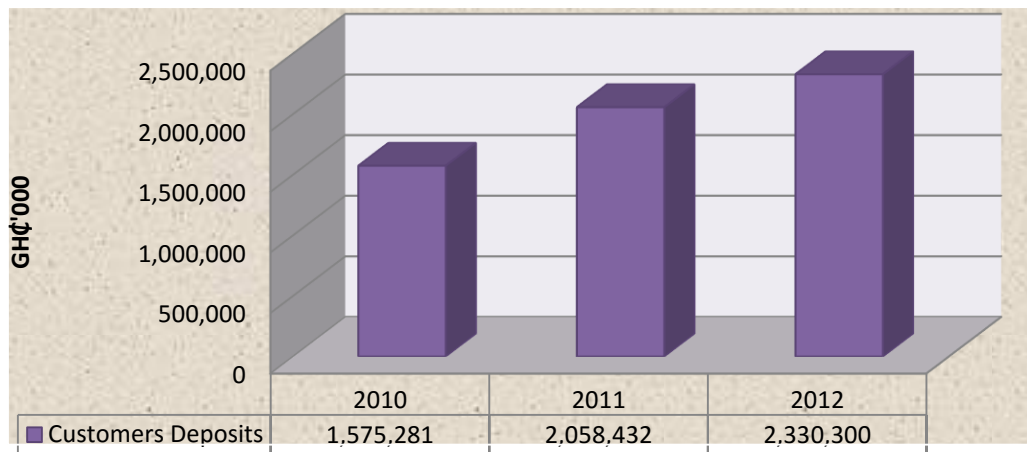
FIGURE 4.0: TOTAL LOANS AND ADVANCES



Source: GCB Ltd Annual Reports; 2010, 2011 and 2012

From Fig. 4.1, the bank achieved a constant increase in their customer deposits. In 2010, the bank was able to mobilize GH¢1,575.281 million as deposits. The total deposits of the bank increased in 2011 by 30.7% from GH¢1,575.281million to GH¢ 2,058.432 million. Total deposits again increased by 13% in 2012 from GH¢ 2,058.432 million in 2011 to GH¢ 2,330.330 million in 2012. This demonstrates a constant growth in customer deposits of the bank for the period under study.

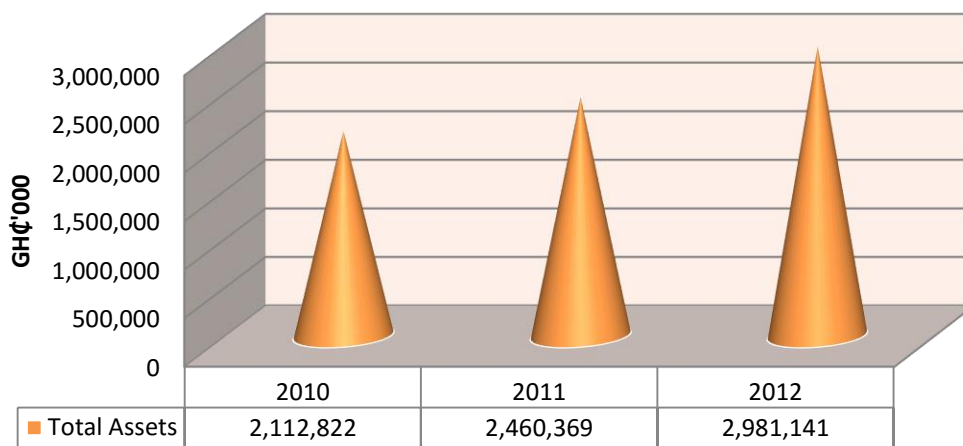
FIG. 4.1: CUSTOMERS DEPOSITS



Source: GCB Ltd Annual Reports; 2010, 2011 and 2012

From Fig. 4.2, Total assets of the bank was GH¢2,112.822 million in 2010 which increased by 16.7% in 2011 to GH¢ 2,460.369 million. The group also experienced an increase in its total assets by 21.17% from GH¢2,460.369 million to GH¢2,981.141 million in 2012.

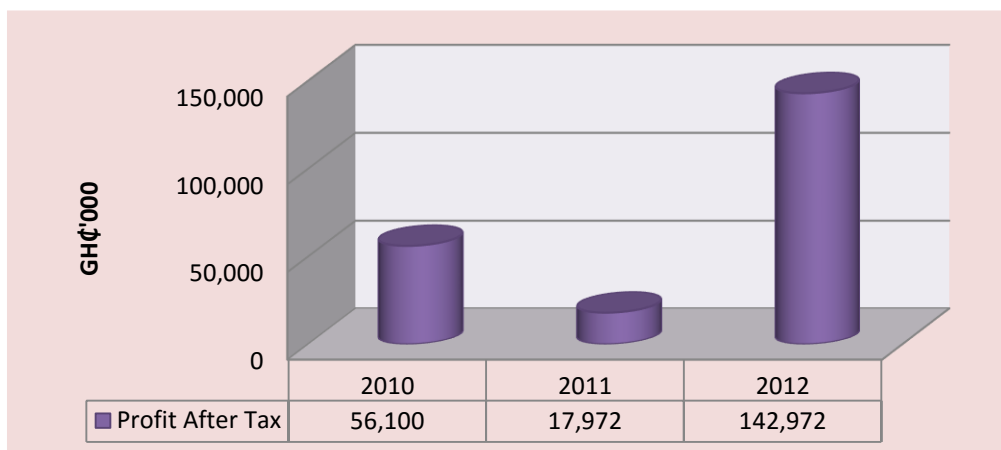
FIG. 4.2: TOTAL ASSETS



Source: GCB Ltd Annual Reports; 2010, 2011 and 2012

In Fig. 4.3, GCB Ltd Profit after tax decreased by 67.96% in 2011 from GH¢56.1 million to GH¢17.972 million. The bank was able to increase its profit after tax in 2012 from GH¢17.972 million to GH¢142.972 million. This showed a more than 100% increase in profit after tax of the bank in 2012, after a fall in 2011 from 2010.

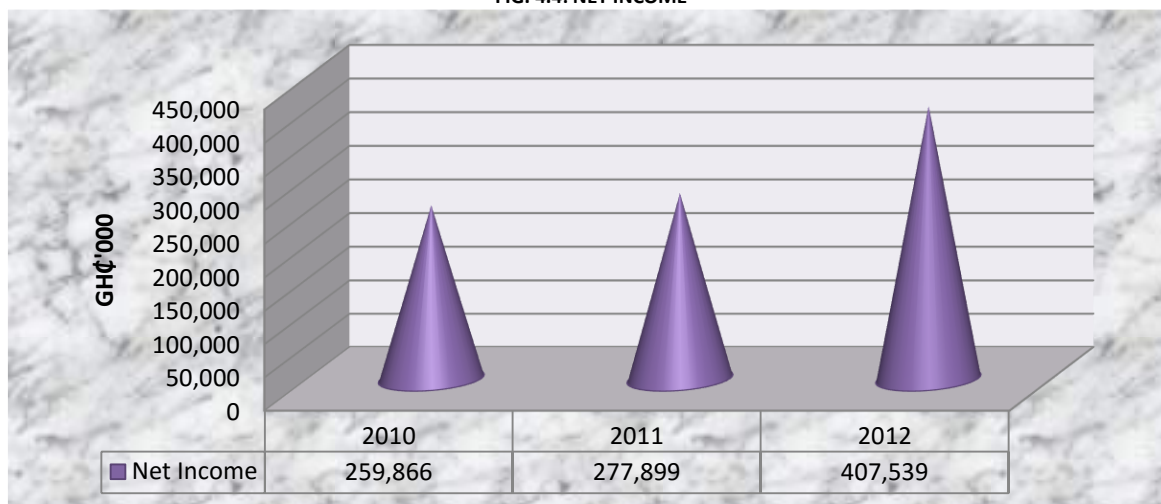
FIG. 4.3: PROFIT AFTER TAX



Source: GCB Ltd Annual Reports; 2010, 2011 and 2012

From Fig. 4.4, the Net income of the group has been on an increase over the period under study. In 2010, the net income of the group was GH¢259.866 million. In 2011, the group net income of GH¢259.866 million in 2010 increased by 6.9% to GH¢277.899 million. Also in 2012, the group experienced a 46.7% increased in their net income from GH¢277.899 in 2011 to GH¢407.539 million in 2012.

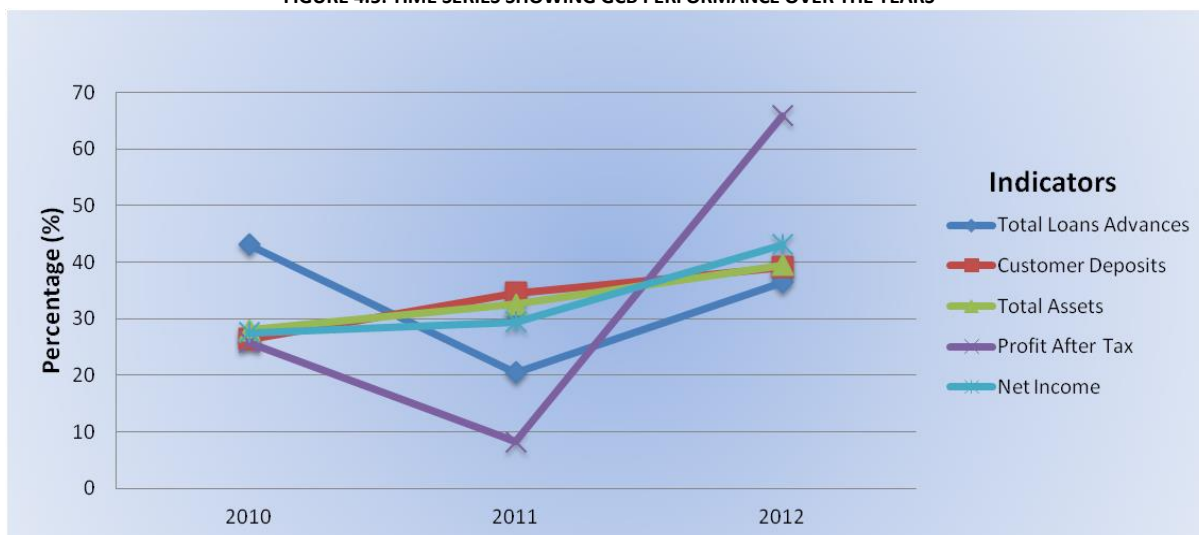
FIG. 4.4: NET INCOME



Source: GCB Ltd Annual Reports; 2010, 2011 and 2012

The time series below shows the collective pattern or trend for which the indicators performed over the past years.

FIGURE 4.5: TIME SERIES SHOWING GCB PERFORMANCE OVER THE YEARS



Source: Researchers own computation

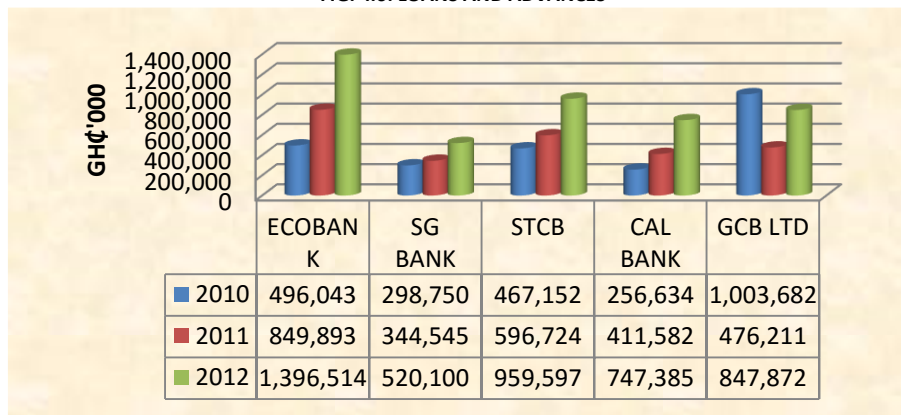
From Figure 4.5 above, the time series showed the movement of the selected performance indicators over the past three years (2010-2012). Considering the Total Loans Advancement, the bank experienced a sharp decline in its Total loans and Advances in 2011 by 22.7% from 43.1% in 2010. In 2012, the bank was able to increase its Total loans and Advances by 16% from 20.7% in 2011. The bank over the past years has experienced a constant increase in its Customer Deposits. As shown above, the bank customer deposits figure was increased by 8.1% in 2011 from 26.4% in 2010 to 34.5% in 2011. In 2012, the bank deposits again increased by 4.6% from 34.5% to 39.1%. Considering the Total Assets of the bank, as shown above, the bank was able to maintain a constant growth in its total assets over years under study by a percentage growth of 4.6% and 6.9% in 2011 and 2012 respectively. The bank experienced a decline in its Profit after tax in 2011 as shown above and a very massive rise in 2012. The bank Profit after tax in 2010 was 25.9% of the total Profit after tax under study which declined by 17.6% in 2011 to 8.3%. In 2012, the profit after tax figure raised to 65.9% representing a 57.6% increment in 2012. Considering the Net Income of the bank for the period under study, the bank experienced an increased throughout. The net income of 27.5% in 2010 out of the total net income for the periods under study increased by a margin of 1.9% to 29.4% in 2011 which also increased to 43.1% in 2012 representing 13.7%.

4.1.2 How does GCB Limited perform financially compared to other banks listed on the Ghana Stock Exchange over the past three years (2010-2012)?

The four selected banks which have been listed on the Ghana Stock Exchange market are as follows: Ecobank Ghana Limited (Ecobank), Societe Generale (SG Bank), Standard Chartered Bank (STCB) and Cal Bank. These banks are performing well in the banking industry as well as GCB Limited. Ecobank and Cal Bank were newly introduced into the banking industry with the introduction of the Universal Banking Law. Standard Chartered Bank and Societe Generale are banks which have grown over the years like GCB Limited. When ranked in the banking industry in terms of core banking performance indicators, GCB Limited is not topping in all the indicators but it is contributing well to the growth of the industry. The oldest of these banks are arranged as follows: Standard Chartered Bank, GCB Limited, Societal General, Ecobank and Cal Bank. The performance indicators used in the comparison included: Total Loans and Advances, Customers Deposits, Total Assets Profit after tax and Net Income of these selected banks including GCB Limited for the periods of this study. Based on the analysis of the data collected, the following results were made.

From Fig. 4.6 below, GCB Limited tops first compared to the other banks in terms of loans and advances for the year 2010, with GH¢1,003.682 million as total loans and advances. Ecobank ranked second with GH¢496.043 million. Standard Chartered Bank ranked third with GH¢467.152 million. Societe Generale was placed fourth in 2010 with GH¢298.770 million and Cal Bank as the last bank with GH¢256.634 million. In 2011, the value of loans and advances of GCB Limited fell from GH¢1,003.682 million to GH¢476.211 million which placed the bank third and Ecobank as first with GH¢849.893 million. Standard Chartered Bank ranked second from third in 2010 with GH¢596.724. Cal Bank ranked fourth with GH¢411.582 million and Societe Generale placed fifth with GH¢344.545 million. In 2012, Ecobank maintained its first position from 2011 in terms of loans and advances with GH¢1,396.514 million. Standard Chartered bank also maintained its position as second with GH¢959.597 million, GCB Limited though experienced an increased in its loans and advances in 2012 from 2011 still ranked third with GH¢847.872 million. Cal Bank and Societe Generale were ranked fourth and fifth with GH¢747.385 million and GH¢520.100 million respectively.

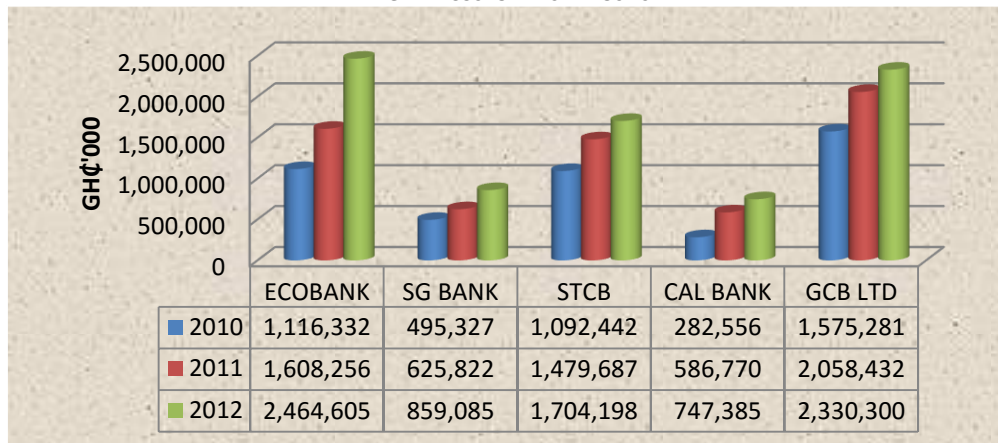
FIG. 4.6: LOANS AND ADVANCES



Source: Annualreportsghana.com

From Fig. 4.7 below, in terms of customer's deposits, GCB Limited tops first in 2010 with GH¢1,575.281 million as total deposits followed by Ecobank with GH¢1,116.332 million. Standard Chartered Bank ranked third with GH¢1,092.442 million as total deposits. Societe Generale and Cal Bank total deposits were GH¢495.327 million and GH¢282.556 million which placed them as fourth and fifth respectfully. In 2011, GCB Bank maintained its position as first with an increase in its customer deposit mobilization to GH¢2,058.432 million from 2010. Both Ecobank and Standard Chartered Bank also increased their value of customer deposits but still ranked second and third with GH¢ 1,608.256 million and 1,479.687 million respectively. Societe Generale was ranked fourth with total deposits of GH¢625.822 million and Cal Bank as last with total deposits of GH¢586.770 million. Ecobank was able to increase its total deposits to GH¢ 2,464.605 million which placed the bank first over GCB Bank Ltd in 2012. GCB Limited moved from first to second with GH¢2,330.300 million. Standard Chartered Bank maintained their third position with GH¢1,704.198 million and Societe Generale as fourth with GH¢ 859.085 million. Cal Bank total deposits for 2012 summed to GH¢747.385 million which placed the bank last among the selected banks in terms of deposit mobilization.

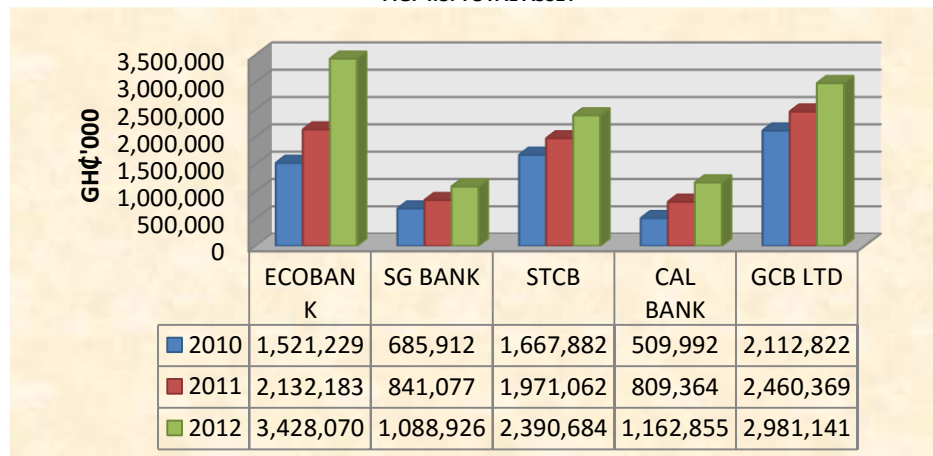
FIG. 4.7: CUSTOMERS DEPOSITS



Source: Annualreportsghana.com

In Fig. 4.8 below, GCB Limited tops first compared to the other four listed banks in 2010 in terms of total assets with GH¢2,112.822 million followed by Standard Chartered Bank with GH¢1,667.882 million and Ecobank with GH¢1,521.229 million as total assets. Societe Generale ranked fourth with GH¢685.912 million and Cal Bank as last with a total assets value of GH¢509.992 million. In 2011, GCB Bank Ltd was able to increase their total assets over the other banks with GH¢2,460.369 million, Ecobank from 2010 increased their total assets to GH¢2,132.183 million over Standard Chartered Bank which placed the bank second and Standard Chartered Bank ranked third with GH¢1,971.062 million. Societe Generale and Cal Bank maintained their fourth and fifth position with GH¢851.077 million and GH¢809.364 million respectively. In 2012, the total assets of Ecobank exceeded GCB Limited ranking the bank first. Ecobank was able to achieve GH¢3,428.070 million as total assets. Though the total asset of GCB Limited increased from 2011 to GH¢2,981.141million in 2012, the bank ranked second and Standard Charted Bank as third with GH¢2,390.684 million. The value of total assets of Cal Bank also increased over Societe Generale to GH1,162.855 million in 2012 which placed the bank fourth and Societe Generale placed fifth with GH¢1,088.926 million as total assets.

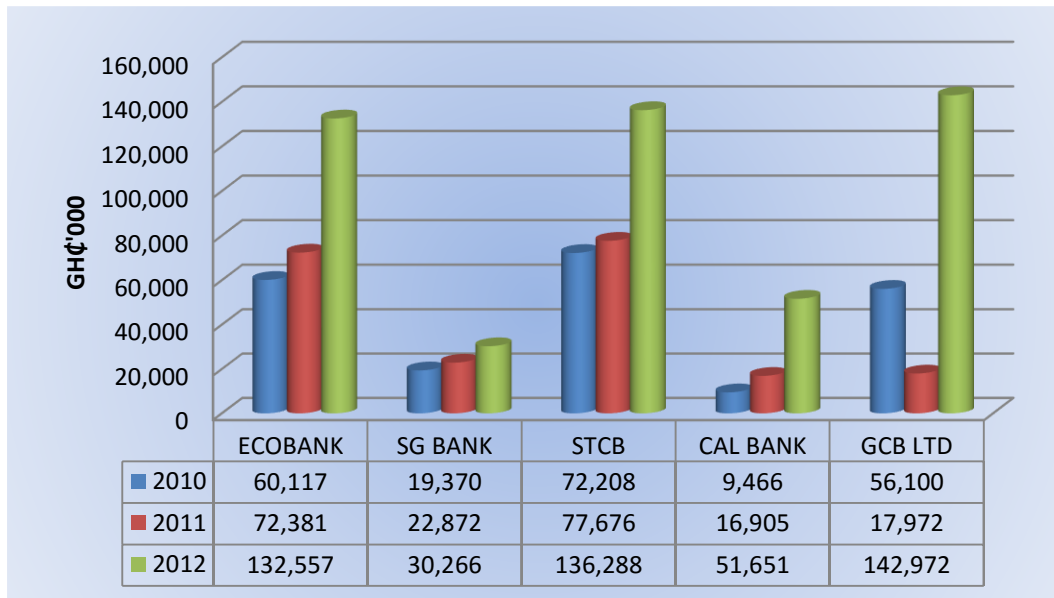
FIG. 4.8: TOTAL ASSET



Source: Annualreportsghana.com

From Fig. 4.9 below, Standard Chartered Bank tops first compared to the other banks in terms of profit after tax for the year 2010, with GH¢72.208 million as profit after tax. Ecobank ranked second with GH¢60.117 million. GCB Limited was ranked third with GH¢56.100 million. Societe Generale was placed fourth in 2010 with GH¢19.370 million and Cal Bank as the last bank with GH¢9.466 million. In 2011, the value profit after tax of GCB Limited increased from GH¢72.208 million to GH¢77.676 million which placed the bank first and Ecobank as second with GH¢72.381 million. Societe Generale ranked third with GH¢22.872 million. The profit after of GCB Limited decreased to GH¢17.972 ranking the bank as fourth. Cal Bank ranked fifth with GH¢16.905 million though there was an increase in profit after tax of the bank. In 2012, GCB Limited experienced a rise in its profit after tax which pushed the bank to be ranked first among the selected banks with a total of GH¢142.972 million. Standard Chartered Bank ranked second with GH¢136.288 million and Ecobank as third with a profit after tax of GH¢132.557 million. Cal Bank and Societe Generale were ranked fourth and fifth with GH¢51.651 million and GH¢30.266 million respectively in 2012.

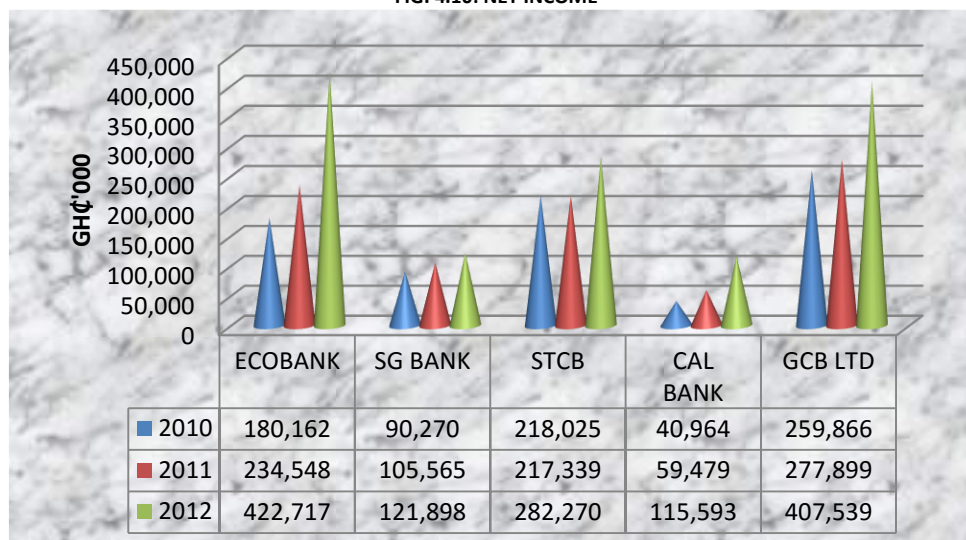
FIG. 4.9: PROFIT AFTER TAX



Source: Annualreportsghana.com

As shown in Fig. 4.10 below, GCB Limited tops first compared to the other four listed banks in 2010 in terms of net income with GH¢259.866 million followed by Standard Chartered Bank with GH¢218.025 million and Ecobank as third with GH¢180.162 million as net income. Societe Generale ranked fourth with GH¢90.270 million and Cal Bank as last with a net asset value of GH¢40.964 million. In 2011, GCB Bank Ltd was able to increase their net income over the other banks with GH¢277.899 million, Ecobank from 2010 increased their net income to GH¢234.548 million over Standard Chartered Bank which placed the bank second and Standard Chartered Bank ranked third with GH¢217.339 million. Societe Generale and Cal Bank maintained their fourth and fifth position with GH¢105.565 million and GH¢59.479 million respectfully. In 2012, the net income of Ecobank exceeded GCB Limited ranking the bank first. Ecobank was able to achieve GH¢422.717 million as total net income. Though the net income of GCB Limited increased from 2011 to GH¢407.539 million in 2012, the bank ranked second and Standard Chartered Bank as third with GH¢282.270 million. The net income of Societe Generale and Cal Bank also increased in 2012 but still ranked the two banks in their original positions in 2011. Societe Generale net income amounted to GH¢121.898 million and Cal bank had a total of GH¢115.593 million as net income.

FIG. 4.10: NET INCOME



Source: Annualreportsghana.com

4.1.3 Which performance indicators of the GCB Limited can be used as key determinants of its financial performance?

In the quest of the researchers to determine which performance indicators of the GCB Limited that can be used as key determinants of its financial performance, Multiple regression analysis was performed to determine whether there is a linear relationship or linear model between the dependent variable, Y, and the independent variables(s), X1, X2,...Xp-1.

The regression model was developed using the STEPWISE method for all the explanatory variables. This method was preferred because it adds the explanatory variables into the model one after the other at a time. It begins with the variable that has or exhibits the highest correlation with the predicted variable, in our case **Bank Performance**.

If an explanatory variable is found not to be contributing significantly to the dependent or predicted variable, it can be removed. The STEPWISE method is especially useful if the independent variables are very large and the motive is to include only those contributing significantly to the model.

After critically examining the SPSS output for the regression model, the study has considered model 1 and 2 on the STEPWISE regression model table as the best models.

Justification for Selecting Model 1 and 2 as the Best Models:

As stated earlier in our discussion under the Stepwise method, the SPSS package begins selecting explanatory variables that contribute highly to the dependent variable. Hence, the package identified Profit after Tax in model 1 as being the independent variable that makes the highest contribution to Bank Performance. It then identified Total Loans and Advances as having the highest partial correlation with Bank Performance. This was added in the second model, model 2.

Mathematically the final and best model is:

$$Y \text{ Bank Performance} = -3.677 + 3.668X_4 + 4.079X_2$$

Also, a critical inspection of the Variance Inflation Factors (VIF) values in Table 4.1 below of these models is less than 10 which are signs of non-existence of collinearity or multicollinearity. This indicates that the best model does not have problems associated with models with too many variables, which do suffer from the issue of over fitting, making it hard to interpret such models.

A look at the model summary reveals in Table 4.2 revealed that R, the multiple correlation coefficients is perfect. R = 1.000 for both models. This shows that there is a perfect correlation between the observed and predicted values of the dependent variable, Bank Performance. The value of R-squared is 1.000 for both models. This indicates the perfect fit of the model.

TABLE 4.1: COEFFICIENTS^a

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		Collinearity Statistics		
		B	Std. Error	Beta	T	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-.005	.001		-4.022	.155	-.022	.012		
	Profit After Tax	3.677E-6	.000	1.000	247.598	.003	.000	.000	1.000	1.000
2	(Constant)	-.008	.000		.	.	-.008	-.008		
	Profit After Tax	3.668E-6	.000	.998	.	.	.000	.000	.741	1.350
	Total loans and Advances	4.079E-9	.000	.005	.	.	.000	.000	.741	1.350

a. Dependent Variable: Bank Performance

TABLE 4.2: MODEL SUMMARY^c

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000 ^a	1.000	1.000	.00135
2	1.000 ^b	1.000	.	.

a. Predictors: (Constant), Profit After Tax

b. Predictors: (Constant), Profit After Tax, Total loans and Advances

c. Dependent Variable: Bank Performance

It is obvious from the analysis that Profit after Tax and Total Loans and Advances serves as the major performance indicators of Ghana Commercial Bank for the period under study taking into consideration the various performance indicators used in this study.

5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

The study assessed the performance of Commercial banks, using Ghana Commercial Bank Limited as a case study. Specifically, the study was conducted to identify the performance indicators that could be used to assess the performance of GCB Limited from 2010 to 2012, to compare the financial performance of the GCB Limited against other banks listed on the Ghana Stock Exchange over the past three years (2010-2012), and to investigate the performance indicators of the GCB Limited that can be used as key determinants of its financial performance.

The study used both descriptive and inferential statistics for the data analysis to achieve its purpose. Annual reports and financial statements were used as the main source of data for the study. The Annual reports and financial statements were gathered from GCB Limited and other banks compared.

The results of the data were as follows:

- Regarding how the various performance indicators performed over the past three years, the bank total loans and advances has grown over the years, though the bank experienced a decline in 2011. These loans and advances include loans given to corporate institutions, small businesses and individuals. The bank experienced a constant increased in its deposit level over the years. The constant growth in deposits means that more customers can be sure that their savings and investment with the bank are secured. The total assets of the bank have increased over the years and this expansion of the bank asset in the future brings about profit of the bank. The profitability of the bank is good and grown over the years after a large decline in 2011. The bank also experienced an expansion in its net income over the years.
- Comparing the performance of the bank with other banks, the bank did well in its total loans and advances compared with the other bank, but averagely below that of Ecobank and Standard Chartered over the years. In terms of deposit mobilization, the bank performed very well compared with the other banks. The bank performed well in terms of total assets than all the other banks in 2010 and 2011 but below Ecobank in 2012. The profitability of the bank over the years is good but more need to done when compared with other banks. The bank net income outperformed the other banks in 2010 and 2011 but below Ecobank in 2012.
- In the quest of the researchers to determine which performance indicators of the bank can be used as key determinants of its financial performance, the study revealed that Profit after Tax and Total Loans and Advances serves as the major performance indicators of Ghana Commercial Bank for the period under study taking into consideration the various performance indicators used in this study.

5.2 CONCLUSION

In a nut shell, the various performance indicators of the Ghana Commercial Bank have performed well over the past three years. When ranked in the banking industry in terms of core banking performance indicators, GCB Limited is not topping in all the indicators but it is contributing well to the growth of the industry. The major performance indicators of the Ghana Commercial Bank are Profit after tax and Total loans and advances.

5.3 RECOMMENDATIONS

Based on the findings of the study, the following recommendations were proposed:

- Many more performance indicators should be investigated to assess the financial performance of the Ghana Commercial Bank. For example, the study leave with earning or dividend per share, asset and liability management, portfolio quality, capital adequacy and also outreach indicators such as number of branches. These may go long way to influence the performance of the bank.
- Profitability and total loans and advances have contributed more to the performance of GCB Limited. Therefore the bank should consider activities that will help increase its profitability. The bank should devise measures to boost its total loans and advances by maintaining regular supervision of loan facilities. This would prevent diversion of funds into business ventures other than the agreed purposes.
- Since banks listed on the Ghana Stock Exchange (GSE) performs better financially, all banks registered in Ghana should try listing on the exchange in order to enjoy benefits such as; creating a market for the company's shares, enhancing the status and financial standing of the company, and increasing public awareness and public interest about the company and its products.
- The Ghana Association of Bankers (GAB) and other stakeholders in the banking institutions should be able to do a comprehensive assessment on banks registered in Ghana, so that researchers could rely on such information for the sake of comparison.

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A FINANCIAL PERFORMANCE EVALUATION OF CEMENT INDUSTRIES IN INDIA

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ABSTRACT

This paper studies financial performance of cement industries in India. Cement Industry play very important role in Indian economy. Development of cement industries leads to entire economic development. Progress of cement industries is very slow. The financial performance of the cement industry plays a vital role in India. This paper evaluates the financial performance using profitability ratio (NP Margin Ratio and Return on Capital Employed Ratio) and liquidity ratio (Current Ratio and Quick Ratio). Other financial and statistical tools and techniques have also been applied in order to check the overall financial performance of the company.

KEYWORDS

cement industries, financial performance.

INTRODUCTION

The role of manufacturing sector is very decisive for a developing nation like India. India is going through a phase of rapid development and growth. Cement is one of the essential industry which plays a vital role in the growth and development of a Indian nation. The Indian cement industry is the second largest industry in the world. The First cement factory in India named South India Limited was established in 1879 in Madras (now Chennai). It began production in 1904, but was not succeed. During this period, three new factories came into light. First successful factory was set up in 1914 by Tata at Porbander in Gujarat. It was known as Indian Cement Company Ltd. Second factory, was set up in Rajasthan and third In Madhya Pradesh. The cement industry in India is dominated by around 20 companies, which account for almost 70 per cent of the total cement production in India. 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.

ULTRATECH CEMENT LTD.

Ultratech Cement was incorporated in 2000 as Larsen & Toubro. Later it was demerged and acquired by Grasim and was renamed as Ultratech Cement in 2004. Today, Ultra Tech cement a part of Aditya Birla group is the country's largest exporter of cement clinker. Ultratech Cement Limited has an annual capacity of 52 million tonnes. It manufactures and markets Ordinary Portland Cement, Portland Blast Furnace Slag Cement and Portland Pozzalana Cement. It also manufactures ready mix concrete (RMC). All the plants have received ISO 9001 certification. The export markets span countries around the Indian Ocean, Africa, Europe and the Middle East. Narmada Cement Company Limited was amalgamated with UltraTech in May 2006, while Samruddhi Cement Limited was amalgamated with UltraTech Cement Limited in July 2010.

AMBUJA CEMENT LTD.

Ambuja Cements Ltd. (ACL) is one of the leading cement manufacturing companies in India and commenced cement production in 1986. Initially called Gujarat Ambuja Cements Ltd, the Company later became Ambuja Cements Ltd. In 2006, global cement major Holmic, acquired management control of the Company. Today, Holmic holds a little over 50% equity in Ambuja Cement Ltd. Its current cement capacity is 27.25 million tonnes. The Company has 5 integrated cement manufacturing plants and 8 cement grinding units across the country. It is also one of the most profitable and innovative cement companies in India. ACL is the first Indian cement manufacturer to build a captive port with three terminals along the country's western coastline to facilitate timely, cost effective and environmentally cleaner Shipments of bulk cement to its customers. The Company has its own fleet of ships. ACL has also pioneered the development of the multiple, bio-mass, co-fired technology for generating greener power in its captive plants.

ACC LTD.

The Company was incorporated at Mumbai in 1936. The Company manufacture cement, refractories and cement plant and other heavy machinery including structural and mild fabrications. ACC is India's oldest and largest cement company, belonging to the Tata group. ACC (ACC Limited) is India's foremost manufacturer of cement and concrete. ACC's operations are spread throughout the country with 17 modern cement factories, more than 40 Ready mix concrete plants, 21 sales offices, and several zonal offices. ACC has a unique track record of innovative research, product development and specialized consultancy services.

LITERATURE REVIEW

Jayant Sathaye (2005)¹ the study revealed that, the Indian cement industry has grown rapidly over the past few decades and there have been significant investments in new cement kilns and associated production equipment. This has led to a situation where India's cement industry in made up of both some of the world's most energy-inefficient plants as well as some of the world's best practice facilities. The challenge for the Indian cement industry is to modernize or phase out the older, inefficient plants while acquiring the best possible cement production technology as production inevitably expands in the coming decades. Alovzat Muslumov (2005)² concluded that the privatization was associated with a declining value added and shareholders' profitability in Turkish cement industry. A decline in the value added and shareholders' profitability were mainly caused by the decrease in return on assets. The decline in the return on asset was traced to declining asset productivity. These results are not consistent with previous cross-sectional privatization studies and a number of country studies.

OBJECTIVES OF THE STUDY

This Paper studies financial performance of three cement industries for the period of five years. The objectives of the present study are as follows:

1. To evaluate the financial performance of Cement Industries of India.
2. To analyze the profitability position of Cement Industries of India.
3. To measure the liquidity position of Cement Industries of India.

HYPOTHESIS OF THE STUDY

Ho – There is no significant difference between Actual Value and Expected Value of Net Profit Cement Industries.

H1 – There is significant difference between Actual Value and Expected Value of Net Profit Cement Industries.

SCOPE OF THE STUDY

This study was undertaken to evaluate financial performance of three cement industries (Ultratech, Ambuja and ACC) for the period of five years. In this paper relationship between net profit and capital employed is shown using regression analysis and chi square method. Different types of profitability ratio (NP Ratio and Return on Capital Employed Ratio) and liquidity ratio (Current Ratio and Quick Ratio) have also been calculated for last five years.

RESEARCH METHODOLOGY

SAMPLE OF THE STUDY

The present study includes three cement industries – Ultratech Cement, Ambuja Cement and ACC Ltd.

NATURE OF DATA

The data used for the present study is secondary in nature.

SOURCES OF DATA

The secondary data has been taken from the published annual reports of concerned Cement industry.

PERIOD OF THE STUDY

The data for the study is taken for last five years.

TOOLS USED FOR THE STUDY

In this paper relationship between net profit and capital employed is shown using regression analysis and chi square method. Different types of profitability ratio (NP Ratio and Return on Capital Employed Ratio) and liquidity ratio (Current Ratio and Quick Ratio) have also been calculated for last five years.

DATA ANALYSIS AND INTERPRETATION

TABLE 1: ULTRATECH CEMENT LTD.

Year	Actual Value	(oi)	Expected Value (ei)	(oi-ei)	(oi-ei) ²	(oi-ei) ² /ei
2010-2011	2,014.73		-1933	3,947.73	15,584,572.15	-8062.37566
2011-2012	2,144.47		-2023	4,167.47	17,367,806.20	-8585.1736
2012-2013	2,655.43		-2118	4,773.43	22,785,633.96	-10758.0897
2013-2014	2,446.19		-2239	4,685.19	21,951,005.34	-9803.93271
2014-2015	1,404.23		-2351	3,755.23	14,101,752.35	-5998.19326
						-43207.7649

Degree of Freedom = n-1 = 5-1= 4

Level of Significance = 5% = 9.488

Ho – There is no significant difference between Actual Value and Expected Value of Net Profit Ultratech Cement Ltd.

H1 – There is significant difference between Actual Value and Expected Value of Net Profit Ultratech Cement Ltd.

Here, the calculated value of ki square is negative. The table value of ki square is 9.488. Hence, H1 is accepted and Ho is rejected. It means there is significant difference between Actual Value and Expected Value of Net Profit Ultratech Cement Ltd.

TABLE 2: AMBUJA CEMENT LTD.

Year	Actual Value (oi)	Expected Value (ei)	(oi-ei)	(oi-ei) ²	(oi-ei) ² /ei
2010	1,496.36	-1210	2,706.36	7324384.45	-6053.21
2011	1,294.57	-1259	2,553.57	6520719.74	-5179.285
2012	1,297.06	-1312	2,609.06	6807194.08	-5188.41
2013	1,228.86	-1371	2,599.86	6759272.02	-4930.177
2014	1,263.61	-1430	2,693.61	7255534.83	-5073.801
					-26424.88

Degree of Freedom = n-1 = 5-1= 4

Level of Significance = 5% = 9.488

Ho – There is no significant difference between Actual Value and Expected Value of Net Profit Ambuja Cement Ltd.

H1 – There is significant difference between Actual Value and Expected Value of Net Profit Ambuja Cement Ltd.

Here, the calculated value of ki square is negative. The table value of ki square is 9.488. Hence, H1 is accepted and Ho is rejected. It means there is significant difference between Actual Value and Expected Value of Net Profit Ambuja Cement Ltd.

TABLE 3: ACC LIMITED

Year	Actual Value (Oi)	Expected Value (ei)	(oi-ei)	(oi-ei) ²	(oi-ei) ² /ei
2010	1,168.29	1137	31.29	979.0641	0.8610942
2011	1,095.76	1145	-49.24	2424.5776	2.117535
2012	1,061.19	1154	-92.81	8613.6961	7.4642081
2013	1,325.26	1161	164.26	26981.3476	23.239748
2014	1,120.01	1175	-54.99	3023.9001	2.573532
					36.256117

Degree of Freedom = n-1 = 5-1= 4

Level of Significance = 5% = 9.488

Ho – There is no significant difference between Actual Value and Expected Value of Net Profit ACC Ltd.

H1 – There is significant difference between Actual Value and Expected Value of Net Profit ACC Ltd.

Here, the calculated value of ki square is greater than the table value of ki square. Hence, H1 is accepted and Ho is rejected. It means there is significant difference between Actual Value and Expected Value of Net Profit ACC Ltd.

PROFITABILITY AND LIQUIDITY RATIOS

TABLE 4

Ultratech Cement	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Profitability Ratios					
Net Profit Margin (%)	10.54	13.35	13.15	10.57	8.78
Return On Capital Employed (%)	15.45	21.69	20.48	14.08	13.53
Liquidity Ratios					
Current Ratio	0.58	0.86	0.66	0.76	0.59
Quick Ratio	0.33	0.57	0.43	0.52	0.43

The above figures present the Net Profit Margin Ratio, Return on Capital Employed Ratio, Current Ratio and Quick Ratio of Ultratech Cement Limited from 2010-2011 to 2014-2015. Above all ratios shows increasing and decreasing trend. All above ratios are high in 2011-2012. NP Margin ratio and Return on Capital Employed Ratio are low in 2014-2015. Current Ratio and Quick Ratio are low in 2010- 2011.

TABLE 5

Ambuja Cement	2010	2011	2012	2013	2014
Profitability Ratios					
Net Profit Margin (%)	16.84	14.36	13.33	14.13	14.99
Return On Capital Employed (%)	21.6	21.93	25.52	16.33	18.25
Liquidity Ratios					
Current Ratio	1.07	1.17	1.22	1.28	1.27
Quick Ratio	0.75	0.9	0.95	1.01	1.04

The above figures present the Net Profit Margin Ratio, Return on Capital Employed, Current Ratio and Quick Ratio of Ambuja Cement Limited from 2010 to 2014. Net Profit Margin Ratio is high in 2014 and low in 2012. Return on Capital Employed Ratio is high in 2012 and low in 2013. Current Ratio is high in 2013 and low in 2010. Quick Ratio is high in 2014 and low in 2010.

TABLE 6

ACC Ltd.	2010	2011	2012	2013	2014
Profitability Ratios					
Net Profit Margin (%)	14.26	13.71	9.34	9.81	9.95
Return On Capital Employed (%)	20.75	21.26	25.46	16.34	14.78
Liquidity Ratios					
Current Ratio	0.68	0.88	0.72	0.84	0.81
Quick Ratio	0.43	0.63	0.46	0.57	0.53

The above figures present the Net Profit Margin Ratio, Return on Capital Employed, Current Ratio and Quick Ratio of ACC Limited from 2010 to 2014. Net Profit Margin Ratio is high in 2010 and low in 2012. Return on Capital Employed Ratio is high in 2012 and low in 2014. Current Ratio is high in 2011 and low in 2010. Quick Ratio is high in 2013 and low in 2010.

CONCLUSION

Development of Indian economy depends on trade and industries. Cement Industry play very significant role in Indian economy. The efficiency of a firm depends upon the working position of the industry. Profit earning is considered essential element for survival of the industry. Both long term and short term solvency ratios prove the solvency position and efficiency of the select industries. The financial positions of the selected cement industries are not satisfactory. Selected cement industries are not achieving its future targets. For the development of entire economy cement industries should try to improve its financial performance.

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