INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION & MANAGEMENT

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       REVIEW OF LITERATURE

       NEED/IMPORTANCE OF THE STUDY

       STATEMENT OF THE PROBLEM

       OBJECTIVES

       HYPOTHESES

       RESEARCH METHODOLOGY

       RESULTS & DISCUSSION

       FINDINGS

       RECOMMENDATIONS/SUGGESTIONS

       CONCLUSIONS

       SCOPE FOR FURTHER RESEARCH

       ACKNOWLEDGMENTS

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       APPENDIX/ANNEXURE

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BOOKS

- Bowersox, Donald J., Closs, David J., (1996), "Logistical Management." Tata McGraw, Hill, New Delhi.
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- Schemenner, R.W., Huber, J.C. and Cook, R.L. (1987), "Geographic Differences and the Location of New Manufacturing Facilities," Journal of Urban Economics, Vol. 21, No. 1, pp. 83-104.

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- Garg, Sambhav (2011): "Business Ethics" Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19–22 June.

UNPUBLISHED DISSERTATIONS AND THESES

- Kumar S. (2011): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.

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WEBSITES

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

DELINQUENCY MANAGEMENT: SPECIAL REFERENCE OF BANK OF CEYLON NORTHERN PROVINCE

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ABSTRACT

This study offers exploratory insights into the level of loan delinquency on Bank of Ceylon in Northern Province. The results were based on the analysis of data from 2005 to 2009 with the loans from the banks. Findings revealed that several factors were responsible for banks' altitude of expanding loan portfolio, principal of which are good credit worthiness, good management and loan recovery policies, and the proper evaluation of loan proposals by the loan officers. The research showed that loans delinquency rate was low at 10.28 per cent of total loan obligations in Bank of Ceylon Northern Province. The correlation(r) value between repayment rate and on-time collection rate is 0.978** which is significant at 0.01 level, there is strong negative relationship between arrears rate and repayment rate, the r value between repayment rate and arrears rate is -0.977** which is significant at 0.01 level, the r value between arrears rate and loss provision rate is 0.768, there is no significant relationship between the arrears and loss provision. In view of the findings of this study, some uncontrollable factors specially ethnic war & people internal displacements are influencing in loan default of 2009. Particularly Mullaitivu, Kilinochchi and Mankulam branches are facing this severe problem; their delinquency rate is 88.60%, 85.44% and 93.59% respectively.

KEYWORDS

delinquency, loan portfolio, recovery policies and repayment rate.

INTRODUCTION

In the last decade, there have been strong macroeconomic improvements in emerging countries and their financial markets have expanded rapidly by financial liberalization and technological developments. These developments increased the accuracy of pricing and the creation of new financial instruments, thus, provided the basis for efficient financial markets (Kyuyung, 2005). The creation of new instruments has significant advantages: provide a flexible financial system to meet different needs, open the door to new investment opportunities for existing market participants, and encourage the entry of new institutions (Gjedrem, 2005). Increase of participants in the financial markets is crucial to create liquidity, that way; the system can absorb the effects of fluctuations in the financial asset prices.

Financial stability can be described as efficiency of financial system performing its resource allocation function and spreading risk function efficiently in a stressed situation. So the delinquency management is most important to maintain the financial stability of Micro finance Institution.

Credit risk refers to the loss because of the debtor's non-payment of loans or other forms of credit. Credit risks are faced by lenders to consumers, lenders to business, businesses and even individuals. Credit risks, nevertheless, are most encountered in the financial sector particularly by the institutions such as banks. Credit risk management therefore is both a solution and a necessity in the banking setting. The global financial crisis also requires the banks to regain enough confidence by the public not only for the financial institutions but also the financial system in general and to not just rely on the financial aid by the governments and central banks. It is critical for the banks to engage in better credit risk management practices.

While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparts.

Early stage delinquency management is an important part of the customer management lifecycle. If accounts can be cured quickly and with little impact on customer service, organizations can salvage important customer relationships and turn a potential negative situation into a positive experience for everyone. The decision to outsource these activities is also critical to the success of any early stage delinquency program. With Delinquencies Rising, a Leading Technology Solutions Provider Turned to Diners Club for Guidance in Identifying the Cause and Finding the Cure.

Risk is an integral part of financial services. When financial institutions issue loans, there is a risk of borrower default. When banks collect deposits and on-lend them to other clients (i.e. conduct financial intermediation), they put clients' savings at risk. Any institution that conducts cash transactions or makes investments risks the loss of those funds. Development finance institutions should neither avoid risk (thus limiting their scope and impact) nor ignore risk (at their folly). Like all financial institutions, microfinance institutions (MFIs) face risks that they must manage efficiently and effectively to be successful. If the MFI does not manage its risks well, it will likely fail to meet its social and financial objectives. When poorly managed risks begin to result in financial losses, donors, investors, lenders, borrowers and savers tend to lose confidence in the organization and funds begin to dry up. When funds dry up, an MFI is not able to meet its social objective of providing services to the poor and quickly goes out of business.

This new direction in delinquency management led to excellent results, with a tremendous 90 percent reduction in write-offs. By implementing new policies consistently, constantly and fairly the company reaped tremendous rewards. The changes extended beyond the reduction in write-offs. Automating expense reporting, paying Diners Club directly for approved charges to the card and using electronic funds transfer have reduced the portion of expense reports paid with a reimbursement check from 100 percent to 20 percent. This has significantly slashed processing costs and freed up employee time for more customer-serving activities. The culture within the company has undergone a change as well. The communication program has fostered a greater sense of accountability among all employees, opened company-wide dialogue and encouraged the company's finance group and its business managers to work together to enforce policies. Making greater use of the reports within Global Vision is raising the value that the company places on using information to manage more proactively. With this insight into expense activity, the company is also able to reduce its exposure to financial risk and focus on being the best service company possible.

The MFIs are the key all over the world to facilitate the financial services among the poorest to alleviate the poverty. The poverty alleviation is the most important fact to reach the economic development of each county. So the micro finance institutions should be sustainable to protect the society and give the credit facilities. This sustainability is mostly depending on the recovery percentage of granted credit facilities.

In Sri Lanka, Central Bank pay a special attention to alleviate the poverty percentage in Northern Province within 2012. In this way, the banking industries turned in the way of implementing the microfinance system in order to strengthen the development of the country through alleviate the poverty. In this connection the Bank of Ceylon is also functioning as the primary micro finance institution in Sri Lanka. This study is intended to evaluate the delinquency management of the Bank of Ceylon in Northern Province.

PROBLEM STATEMENT

An excessive increase in repayment delinquencies may cause lenders with low capital adequacy ratios to become insolvent, resulting in widespread failures (Crook & Banasik, 2005). Because it is impossible to know who will fail to make repayments with certainty, lending institutions strive to manage consumer credit risk by estimating the scale and probability of economic losses for each portfolio.

According to the Central Bank of Sri Lanka (2008) the global financial environment was marked by intensifying turbulence, particularly since mid-September 2008. As the effects of US Sub-Prime mortgage market Crisis spread to other parts of the world, the result was a worldwide credit crunch. The drying up of liquidity in financial markets the world-over had ripple effects on real variables as well.

Central Bank of Sri Lanka (2008) declares that Sri Lanka's financial sector faced the spin-off effects of the turbulence in the international financial markets commendably well. While banks operating locally did not have direct exposures to US mortgage linked securities or to the financial institutions that failed elsewhere, the partial closure of Sri Lanka's capital account as well as the sound regulatory framework in place, safeguarded the domestic financial system. In addition, since January 2008, licensed banks. Which account for the greater part of financial intermediation in the country, have been migrating to the Basel II Capital Adequacy framework, which encompasses credit, market and operational risk aspects, and this has helped further strengthen the domestic financial system. The domestic financial system also came under stress due to liquidity problems faced by one commercial bank and failure of some unauthorized finance business during 2008. However, the central bank came to the rescue of the troubled commercial bank in a timely manner and systematic risks stemming from the undesirable external or domestic developments taking effect. Hence, Sri Lanka's financial system remains sound and continues to support economic activity. Therefore the present study intends to identify whether the BOC follow the effective delinquency management? Why there are differences on delinquency management among the branches of Bank of Ceylon?

REVIEW OF LITERATURE

This review of the existing literature covers studies relevant to the research topic. Areas reviewed include the role of microcredit, default in repayment and its effect on microcredit programs, and challenges facing the microcredit subsector. Literature on strategies applied to minimize default is also discussed here.

Amaro and Armando (2008) have conducted this qualitative case study which was to examine the loan default prevention and management practices in Florida's 28 community colleges by conducting telephone interviews. Results revealed that the community colleges used minimal default prevention practices and there was a lack of standardization in the areas of default prevention and aversion. The study recommends that financial and personnel are taught the default prevention guidelines and proposes default prevention.

Boshoff and Staude (2003), in their study of customer recovery satisfaction among the bank employee in South Africa. They identified three main factors *i.e.* procedural justice, interactional justice and distributive justice oriented recovery strategies (JORS). Distributive justice focused on the specific outcome of the firm's recovery effort. Did this outcome (output) offset the costs (inputs) of the service failure? Example of distributive outcomes include compensation such as gratis, discount, coupons, free upgrade, free ancillary services, repair, replace, re-perform and apologies. Distributive justice focused on the actual objective outcome of the service recovery such as financial compensation (i.e. refund and discount). An offer was perceived to be more or less favourable if it was left without explanation for the failure as supported by Spark and Callan, (1996). The distributive justice was based on equity theory which stated that an outcome would be evaluated in terms of its perceived equity. Adam (1965) argued that a person would evaluate the outcome based upon a ratio of inputs to outputs. It was possible that an outcome might even be perceived as too high or too different from that other received and resulting inequality. Thus in this study the relationship between service recovery strategies i.e. justice or fairness of the recovery strategies and customer retention were examined.

The previous research found that procedural justice functioned differently from interactional and distributive justice. It was found that insignificant in Blodgett, *et al.*, (1997), but was operationalised through implicit no-voice or voice in Van den Bos, *et al.*, (1999). There was no one best method for recovering from service failure (Hoffman, 2000). Previous research on service recovery had indicated that not all approaches to service recoveries were the same and not all were equally effective in recovering service failure in different situation and they offered mixed result (Tax, *et al.*, 1998). Normally businesses lose 15 to 20% of their customers. Inadequate company responses to service failure witnessed a significant increase in the firm's defection rate. Furthermore it was reported that 75% of restaurants customers shared their experiences through word-of-mouth. Hence, effective service recovery was directly linked to the firm's profitability (Hoffman, 2000).

Sparks and McKoll-Keneddy (2001), found that respondents were more satisfied with partial refund when service provider adhere to company's policy, but respondents were more dissatisfied if service provider gave away token as special favour. The purpose of the research was to investigate the levels of satisfaction associated with various combination of procedural, interactional and distributive justice related to service recovery strategies. Collie, *et al.*, (2002), revisited the fair process of distributive and interactional justice and found that the analysis provided evidence of fair process across all levels of distributive justice for outcome fairness and satisfaction but only in relation to the effects of the interactional justice. The method used was scenarios based experiment and respondents were undergraduates' business students. Instead of using students as respondents and scenario experiments, Maxham III and Netemeyer (2002), broke the tradition of service recovery research. They conducted a research using self-administered survey questionnaires on bank customers and home buyers. They found a detailed result such as procedure and interactional justices were more influential in overall satisfaction than distributive justice. They further found that satisfaction with recovery more likely to spread positive word-ofmouth, purchase intent than overall firm satisfaction. Furthermore, satisfaction partially mediated word-of-mouth purchase intent.

Previous researchers also found that dimensions such as tangibles (Foster & Cardogan, 2000), firm climate (Clark, 2002; Davidson, 2003), service guarantee (Liden and Skalen, 2003), customer relationship (Boles *et al,* 1997), customer compatibility (Grove and Fisk,1997, Hartline , 2001) , empowerment (Yavas *et al,* 2003, Hocutt & Stone, 1998) , communication (Sparks *et al,* 1997), feedback (Hoffman and Bateson, 1997), explanation (Conlon and Murray, 1996), speed of recovery (Bitner *et al,* 1990; Boshoff,1999), economical and psychological atonement (Webster *et al ,* 2000; Levelsque & McDougall, 1996) were correlated to customer retention and service recovery satisfaction (Boshoff & Staude, 2003).

Moreover, some of the previous studies used bank managers (Engku Ngah, *et al.,* 1998; Rohaya & Nor Hayati, 2004; Ramayah & Koay, 2000), bank employees (Clark, 2002; Boshoff & Allen, 2000), and undergraduates students as respondents (Matilla, *et al.,* 2000; Smith, *et al.,* 1999; Smith & Bolton, 1998; Ching Liu, *et al.*, 2000).

However previous researches methods and results were varied and mixed, none of the previous researchers used Bank of Ceylon and neither have they related Delinquency Management in Northern Province of Sri Lanka. Therefore it is now clear that there are gaps in the relevant theories, practical aspects and empirical evidences, concerning the issue of Delinquency Management of Bank of Ceylon in Northern Province of Sri Lanka. Thus the present study is initiated on "A case study analysis on delinquency management of Bank of Ceylon in Northern Province".

METHODOLOGY

Micro Soft Excel 2007 And SPSS (Statistical Package for Social Science) was used to analyze the data and test the Hypothesis. The following tools were used to test the hypotheses and find the reliability.

RATIO ANALYSIS

Reliability measure was used to test the Variation in the level of average delinquency rates for loan is formulated as a function of the following ratios.

Repayment rate = $\frac{Amount\ Received}{Amount\ Otstanding}$

On-time collection Rate = $\frac{Amount\ Received\ on\ time}{Amount\ due\ for\ the\ first\ time}$

Portfolio at risk (PAR) = $\frac{Outstanding\ amount\ of\ past\ due\ loan}{Total\ outstanding\ portpolio}$

Arrears Rate = $\frac{Amount\ past\ due}{Total\ outstanding\ portfolio}$

Loan loss provision rate = $\frac{Loan\ loss\ provision}{Total\ outstanding\ portfolio}$

CORRELATION ANALYSIS

Correlation test are applied to a random sample of values for the continuous variables. In this case of the person correlation co-efficient. This is a parametric test because it is assumed that the distribution of response is normal for each independent variable value. If a change in the value of another variable, the two variables are said to be correlated. This examines that, whether two variables are perfectly correlated or partially correlated.

HYPOTHESIS OF THE STUDY

The following hypotheses are formulated for the present Study.
H1: Repayment rate & On-time collection rate are positively correlated
H2: Repayment rate and Arrears rate are negatively correlated
H3: Arrears rate (Portfolio at Risk) and loss provision rate are positively correlated

RESULTS AND DISCUSSION

ANALYSIS OF DELINQUENCY MANAGEMENT

Repayment rate, On-time collection Rate, Arrears Rate (Portfolio at risk -PAR), Loan loss provision rate are used to analyze the data collected from the Bank of Ceylon to prove position of delinquency management and to test the hypotheses.

TABLE 01: LOAN REPAYMENT RATE OF BANK OF CEYLON BY YEARS 2005 TO 2009

Years	2005	2006	2007	2008	2009	Average
	(%)	(%)	(%)	(%)	(%)	(%)
Northern Province	94.89	91.17	87.70	89.87	89.46	90.62

Repayment of the loan by installments, made up of an amount of capital borrowed and an amount for the interest charged. Depending on the type of mortgage, these installments can be fixed for the life of the loan or vary with interest rate changes. Measures the amount of payments received with respect to the amount due. This rate reflects the percentage of recovery on disbursed loan.

Average Northern Province's repayment rate is 90.62% and it was 94.89%, 91.17%, 87.70%, 89.87% & 89.46% in 2005, 2006, 2007, 2008 & 2009 respectively. Repayment rate of Northern Province is very high in 2005 as 94.89%, it was low as 87.70% in 2007, in this period Mannar, Mankulam, Kilinochchi and Point Pedro branches are influenced in this reduction of repayment rate of Northern Province. Their repayment rates were 74.01%, 66.91%, 81.51% and 61.60% respectively.

ON-TIME COLLECTION RATE

Repayment of the loan by installments, made up of an amount of capital borrowed and an amount for the interest charged. Measures the amount of payments received with respect to the amount on outstanding without any delay. This rate reflects the percentage of on-time recovery of total outstanding loan.

This on-time collection rate clearly describes the delinquency management of branches. If the bank has over 95% of on-time collection rate, the bank maintain proper management on recovery and disburse loan with perfect evaluation.

TABLE 02: ON-TIME COLLECTION RATE OF BANK OF CEYLON BY YEARS 2005 TO 2009

Years	2005	2006	2007	2008	2009	Average
	(%)	(%)	(%)	(%)	(%)	(%)
Northern Province	94.18	90.69	87.33	88.05	88.36	89.72

Northern Province's average on-time collection rate of last 5 years as 89.72%, it was 94.18%, 90.69%, 87.33%, 88.05% & 88.36% in 2005, 2006, 2007, 2008 & 2009 respectively. From these figures, we can come to the conclusion that the on-time collection rate of Northern Province is in declining range, Mankulam, Mullaitivu, Kilinochchi & Mannar branches are highly influenced in this effect of Northern Province's on-time collection rate of disbursed loans.

ARREARS RATE

Failure to pay an obligation when due. Loans with more than two missing payments (over 90 days past due) are regarded as seriously delinquent and debt collection efforts are initiated to recover the amount due. In a monetary context, something that has been made payable and is overdue and unpaid. These overdue (above 90 days past due) amount on percentage of total loan outstanding is called as arrears rate.

Table 03 describes the percentage of arrears loan on total loan of each branch and districts for last five years. Northern Province's average arrears rate of last 5 years as 10.28%, it was 5.82%, 9.31%, 12.67%, 11.95% & 11.64% in 2005, 2006, 2007, 2008 & 2009 respectively. The arrears rate of Northern Province is very high in 2007 as 12.67%, very low in 2005 as 5.82%. Point Pedro, Mankulam, Mullaitivu, Kilinochchi & Mannar branches are highly influenced in this increase of arrears rate in Northern Province. Mullaitivu, Mankulam, Kilinochchi, Mannar and Point Pedro branches' arrears rate is 88.60%, 93.59%, 85.44%, 26.18 & 21.07 respectively.

TABLE 03: LOAN ARREARS (DEFAULT) RATE OF BANK OF CEYLON BY YEARS 2005 TO 2009

Years	2005	2006	2007	2008	2009	Average
	(%)	(%)	(%)	(%)	(%)	(%)
Northern Province	5.82	9.31	12.67	11.95	11.64	10.28

TABLE 04: LOAN LOSS PROVISION RATE OF BANK OF CEYLON BY YEARS 2005 TO 2009

Years	2005	2006	2007	2008	2009	Average
	(%)	(%)	(%)	(%)	(%)	(%)
Northern Province	6.55	6.13	34.43	16.30	34.25	19.53

LOAN LOSS PROVISION RATE

The amount outstanding as due or default for a specific period of time, the bank can't assure that the full default amount could be recovered in future, some risk is there, so the bank needs to make provision amount on behalf of the non-performing loan outstanding. This amount of provision on total non-performing loan outstanding declares the percentage of provision rate made by the bank on total non-performing loan outstanding amount.

A non-cash expense for banks to account for future losses on loan defaults. Banks assume that a certain percentage of loans will default or become slow-paying. Banks enter a percentage as an expense when calculating their pre-tax incomes. This guarantees a bank's solvency and capitalization if and when the defaults occur. The loan loss provision allocated each year increases with the riskiness of the loans a given bank makes. A bank making a small number of risky loans will have a low loan loss provision compared to a bank taking higher risks.

Table 04 describes the Rate of Provision on Total Non-performing Loans by branches and districts basis in Northern Province of Bank of Ceylon.

Average Northern Province's loan loss provision rate is 19.53%, it means 19.53% of non-performing loan is expected by the bank that could not be recovered in future. It was as 34.25% in 2009 and 34.43% in 2007. So Northern Province branches have faced difficulties in 2007 and 2009 by big percentage. It is risk to the bank's financial stability.

CORRELATION ANALYSIS

Correlation analysis is a statistical analysis which statistically measures the extent and nature of the relationship between two intervals or variables. The co efficient of correlation is calculated to identify relationship between the following ratios.

The value of correlation between the Repayment rate and On-time collection rate of Bank of Ceylon Northern Province is 0.978** which is significant at 0.01 level, which represents there is strong positive relationship between the Repayment rate and On-time collection rate of Bank of Ceylon Northern Province. Therefore when repayment rate increases, On-time collection rate will also increase of Bank of Ceylon in Northern Province.

TABLE 05: CORRELATION BETWEEN REPAYMENT RATE AND ON-TIME COLLECTION RATE

Northern Province		Repayment Rate	On-Time Collection Rate
Repayment Rate	Pearson Correlation	1	.978**
	Sig. (2-tailed)		.004
	N	5	5
On-Time Collection Rate	Pearson Correlation	.978**	1
	Sig. (2-tailed)	.004	
	N	5	5

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

TABLE 06 : CORRELATION BETWEEN ARREARS RATE AND LOSS PROVISION RATE

Northern Province		Arrears Rate	Loss Provision
Arrears Rate	Pearson Correlation	1	.768
	Sig. (2-tailed)		.129
	N	5	5
Loss Provision	Pearson Correlation	.768	1
	Sig. (2-tailed)	.129	
	N	5	5

TABLE 07: CORRELATION BETWEEN REPAYMENT RATE AND ARREARS RATE

Northern Province		Arrears Rate	Repayment Rate
Arrears Rate	Pearson Correlation	1	-.978**
	Sig. (2-tailed)		.004
	N	5	5
Repayment Rate	Pearson Correlation	-.978**	1
	Sig. (2-tailed)	.004	
	N	5	5

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

The value of correlation between the Arrears rate (Portfolio at risk) and Loss Provision rate of Bank of Ceylon Northern Province is 0.768 which is not significant, which represents there is no relationship between the Arrears rate and Loss Provision rate of Bank of Ceylon Northern Province.

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The value of correlation between the Arrears rate (Portfolio at risk) and Repayment rate of Bank of Ceylon Northern Province is -0.978** which is significant at 0.01 level, which represents there is strong negative relationship between the Repayment rate and Arrears rate of Bank of Ceylon Northern Province. Therefore when arrears rate increases, repayment rate will also increase of Bank of Ceylon in Northern Province.

FINDINGS AND CONCLUSION

This study offers exploratory insights into the level of loan delinquency of Bank of Ceylon in Northern Province, and the lending practices of the country's bankers towards the Micro credit. The results were based on the analysis of data collected for five years from in 2005 to 2009 with the Northern Province of BOC. Findings reveal that several factors were responsible for banks' altitude of not expanding loan portfolio, principal of which are poor credit worthiness, lack of collateral security and the constraint imposed by regulation, based on capital adequacy.

The study shows that loans delinquency rate was low at 5.82 per cent of total loan obligations among Bank of Ceylon in Northern Province in 2005, contrary to the situation in some parts of Sri Lanka, loans delinquency rate was high at 11.64 percent of total loan obligations in 2009. In view of the findings of this study, some uncontrollable factors specially ethnic war & people internal displacements are influencing in loan default of 2009. Particularly Mullaitivu, Kilinochchi and Mankulam branches are facing this savior problem; their delinquency rate is 88.60%, 85.44% and 93.59% respectively. And given the implications of loan default on the financial sector of a country, the government should collate and analyze information on, so that an informed decision could always be made on the full understanding of the problems of the sector.

However, the measures suggested in this study are of importance to policy planners, not only in Sri Lanka, but in other developing countries in their similar situations of delinquency process.

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HRD ISSUES IN INDIAN PSUs: AN EMPIRICAL STUDY OF HUTTI GOLD MINES COMPANY LIMITED

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ABSTRACT

The significance of HRD can be felt in any organization which tends to grow and prosper along with development of the workforce. In order to maintain the legacy of the PSUs, they must actively participate in the development of its greatest asset called people, so that they can match the standards of the competing time. The company's managerial philosophy generally depends on the top management. The present paper make an attempt to study the problems and difficulties associated with effective implementation of HRD management. The company cannot be developed without the development of its people. People are stressed to be developed in the wake of ever changing business environment and fast changing technology. Further the paper draw the empirical evidences of the HGML and make a systematic attempt to understand the real issues pertaining a back step for HRD management and implementation in the selected sample unit. In the due course of developing people in planned and systematic manner HRD achieved greater significance in Indian organizations over a period of time. The selected sample organization will aim to make use of all potentialities to make an attempt to create a culture of HRD and growth. Further the paper elicits the existing HRD practices in the sample unit by collecting the information from the selected respondents and suggests necessary actions for improving organization. Everyone in the organization should feel responsibility to carry HRD activities on his/her capacities and take it forward to the next level.

KEYWORDS

HRD, Hutti Gold Mines Co. Ltd.

INTRODUCTION

The present scenario of industrial change, economic development, liberalization and privatization and globalization has necessitated organization to be more alert. In the 21st Century, we come across Human Resources field emerging with its importance across the globe. The importance of Human Resources is to be analyzed and studied thoroughly in order to enhance the capabilities of an organization. Hence, the management of an organization always must focus on the strength of its people or manpower to overcome the weaknesses. The Human Resources Development (HRD) looks after overall development of the human resources of an organization. HRD not only focuses on enrichment of human resources but also covers policies, philosophy, procedures and practices relating to management of people within organizations. As people possess emotions, attitudes, feelings, values and beliefs, etc. it becomes very important to assess and develop them.

HRD is a people-oriented concept. It mainly consists of developing the skills, attitudes, knowledge and competencies of people working in an organization. Employees are considered to be the nerves for any organization and it is very important to manage employees efficiently. The workforce is the best ambassador for the organization. Employees carry the image of the organization n portray as a replica of an organization in which they work; as they carry the culture of the organization in them. Thus, every employee is very important to an organization despite of various levels of management. From employer to employee, every employee is held responsible and accountable for the growth of an organization.

The Present business is competitive and requires world class HR, human resources of an organization are strategically prominent to survive the competency around and to give counter attack to the rivals. Hence, it becomes a primary goal for any organization, be it small or big, to keep the employees happy and satisfied. The advent of technology has changed the practices of jobs and work methods, enabling faster execution of work. The mindset of employees has changed now comparing to the traditional ones.

Thus, HRD becomes an important aspect which can trace out the best capabilities hid in the organization. It also helps the organization to transform into a strong and competent entity. Special trainings and refresher courses will enhance the capabilities of the employees and help the organization to combat the challenges. In India, HRD is practiced by both private and public sectors. It consist various activities namely training, performance appraisal, welfare of employees and developing their potentialities.

OBJECTIVES OF THE PRESENT PAPER

The present paper aims to study the problems & difficulties associated with effective management of HRD and its implementation which serves as major obstacle in the selected sample organization. The paper is based on empirical evidences drawn from the selected organization i.e. Hutti Gold Mines Company Limited, which is a Karnataka state public sector undertaking.

METHODOLOGY

The present paper is based on the data elicited from the sample respondents in the selected sample unit. The data has been collected by administering a well defined and structured questionnaire which comprises of both open and close ended questions and direct interactions with officials and employees of the unit. The questionnaire was administered to both cadre of employees i.e. managerial and non managerial positions.

DATA ANALYSIS METHODS AND TECHNIQUES

A properly defined approach is made to analyze and interpret the data elicited from the sample employees in the selected unit. Seven prominent variables are taken into account namely resistance from the employees, resistance from the top management, willingness of the employees to innovate and technological change, proper linkage between qualification and measures used for the HRD, Absence of effective feedback and appraisal system, pressure from the trade unions, negative/ wrong perception of the employees with regard to HRD, are being considered for the recording of the employees views and opinions and pursued impact on the implementation and effectively managing the HRD in the sample unit.

RESULTS

TABLE-1: AGE GROUP OF THE RESPONDENTS

Categories	Age groups	No. of Respondents	%
Young	20—30	53	15
Middle	31—40	108	31
Old	41—50	105	30
Very old	51—60	84	24
Total		350	100

Source: Field survey

GRAPH -1
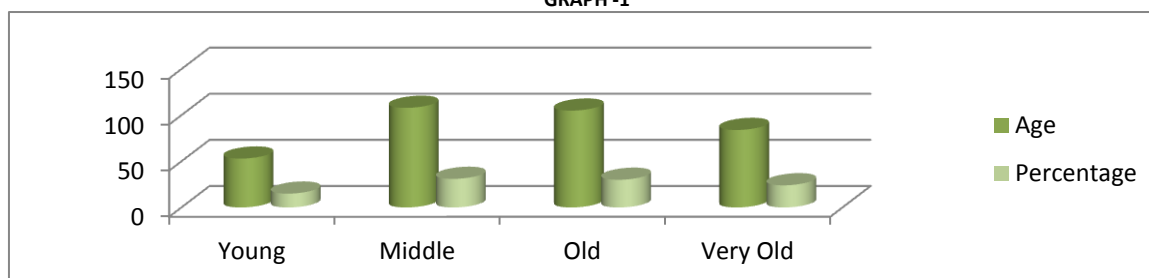
Source: Table-1.

The above table depicts the age of the employees of HGML. The age ranged between 20 years to 60 years of the maximum numbers i.e. 108 respondents were in age group of 31-40 years constituting 31% followed by 30% of respondents were in the age group of 41-50 years. The significant highlight of age group respondents is many of the respondents were above 40 years. The set of employees above the age group of 40 may have positive contribution on HRD provided the firm takes required initiatives.

TABLE-2: EDUCATIONAL QUALIFICATION OF RESPONDENTS

Level of education	No. of Respondents	%
PG	47	13.4
Graduate	69	19.7
Diploma	36	10.3
ITI	55	15.7
PUC	51	14.6
Others	92	26.3
Total	350	100.0

Source: Field survey

GRAPH -2
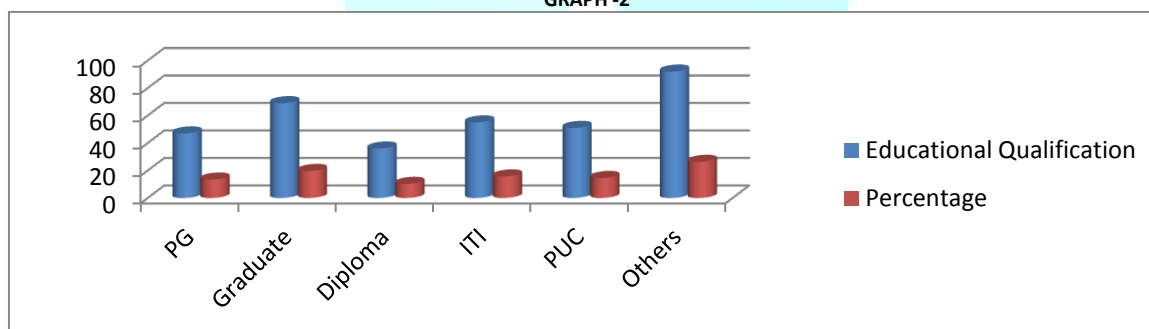
Source: Table-2.

The analysis of table-2 reveals that, the education background of employees is heterogeneous representing 26.3% with general qualification 19.7%, graduates 59% with ITI and 14.6% with PUC and 13.4% post graduates as background of educational qualifications. Under such given condition. It is very difficult for the organization to frame an appropriate HRD policy for developing the Human resource. i.e. in the light of diverse educational qualification of the employees.

TABLE-3: EXPERIENCE OF THE RESPONDENTS

Years	No. of Respondents	%
< 5yrs.	43	12.3
6—10yrs	78	22.3
11—15yrs	86	24.6
16—20yrs	65	18.6
21yrs & Above	78	22.3
Total	350	100.0

Source: Field survey

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GRAPH -3
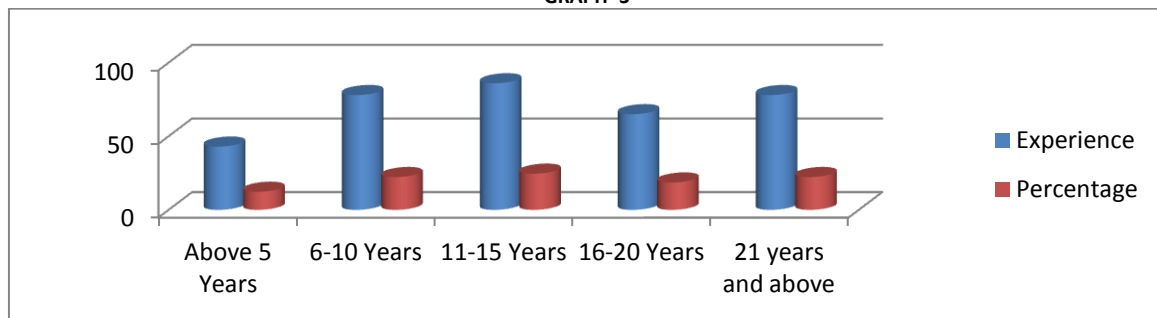
Source: Table-3.

Based on the analysis of table-3, it can be inferred that majority of the employees were having more than 15 years of experience, it is a good strength for the organization and will enable to draw the positive contributions from the employees. It is quite easy also for the firm to develop and adopt effective HRD policies like training and development, for the firm's appraisal etc.

TABLE- 4: RESPONDENTS AWARENESS WITH CONCEPT OF HRD

Familiarity	No. of Respondents	%
High	173	49.4
To some extent	128	36.6
Not at all	49	14.0
Total	350	100.0

Source: Field survey

GRAPH - 4
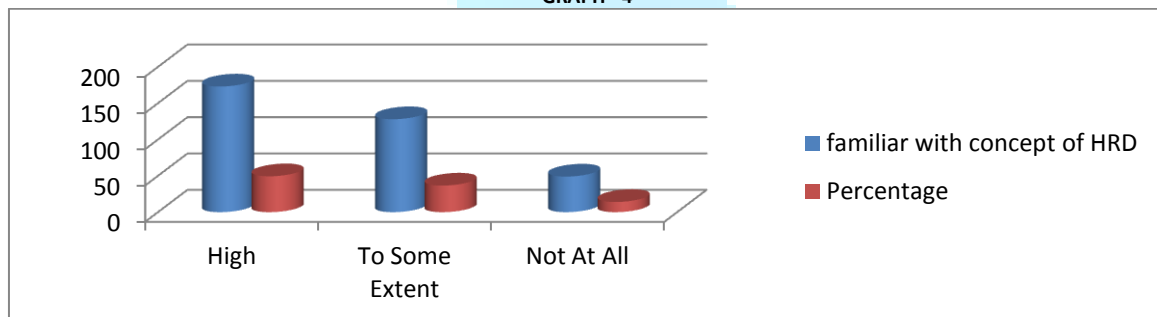
Source: Table-4.

The analysis of the table- 4 shows that, majority of the employees i. e 173 (49.4%) were familiar with concept HRD, followed by (36.6%) of the respondents were familiar with HRD concept and 14% were not aware about HRD concept. For the organization a desired platform is available to launch HRD policies and initiatives since majority of employees are familiar with concept HRD.

TABLE-5: RESISTANCE FROM THE EMPLOYEES

Opinion	No. of Respondents	%
Strongly Disagree	123	35.1
Disagree	78	22.3
Neutral	22	6.3
Agree	78	22.3
Strongly Agree	49	14.0
Total	350	100.0

Source: Field Work

GRAPH- 5

Source: Table – 5

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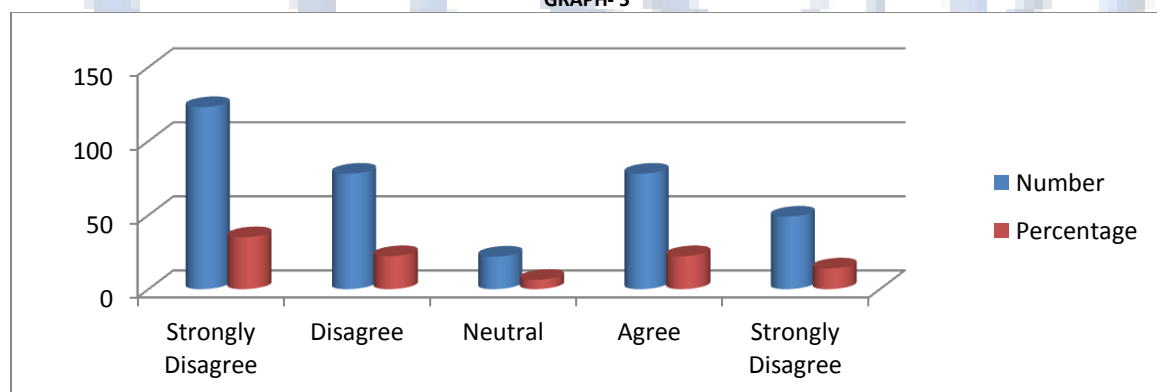
The analysis of the table-5, reveals that majority of the respondents i.e. 201 (57.4%) disagree that employees are resistant in effective management of HRD & problems. Further 127 respondents who accounts for a percentage of (36.2%) agree that employees are resistant to problems and implementation of HRD effectively. 22 respondents who holds a percentage of (6.3%) remains neutral in responding.

TABLE-6: RESISTANCE FROM THE TOP LEVEL MANAGEMENT

Opinion	No. of Respondents	%
Strongly Disagree	101	28.9
Disagree	163	46.6
Neutral	21	6.0
Agree	47	13.4
Strongly Agree	18	5.1
Total	350	100.0

Source: Field Work

GRAPH- 6
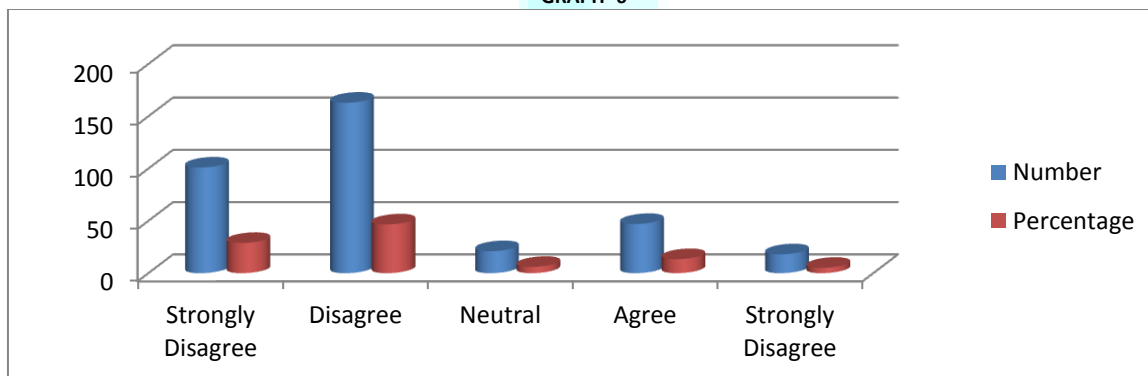
Source: Table – 6

Based on the analysis of the table-6, it can be found that Majority i.e. 264 (75.4%) Disagree with the fact that top management is resistant to HRD and to problems and implementing HRD management effectively. 47 respondents recorded a percentage of 13.4% agree that the top management is resisting employees development and showed negligence to the issues of the employees. Further 18 respondents which counts for a meager percentage of 5.1 strongly agree to the fact that top management is against the HRD and people's problems and fails to address the problems and effective implementation of HRD management.

TABLE-7: LACK OF WILLINGNESS OF EMPLOYEES TO INNOVATION & TECHNOLOGICAL CHANGE

Opinion	No. of Respondents	%
Strongly Disagree	38	10.9
Disagree	82	23.4
Neutral	52	14.9
Agree	110	31.4
Strongly Agree	68	19.4
Total	350	100.0

Source: Field Work

GRAPH- 7
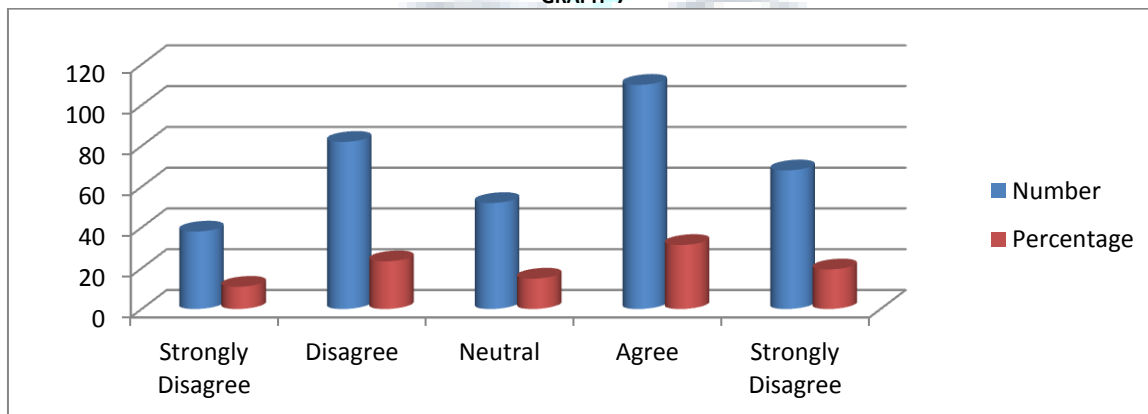
Source: Table – 7

In the table-7, an attempt is being made to ascertain that how the employees adjust to problems of innovation and changing technology at the work place. In the sample unit it is observed that majority of the respondent's i.e. 178 (50.8%) agree that employees lack to innovate and change in technology; this is negative on part of the selected sample organization. The organization has to make efforts to change the mindset of the employees so that they can take active steps to innovate and cope with ever changing technology. Further 120 respondents which accounts for 34.2% do not agree to the fact. But a good number i.e. 52 respondents out of 350 remain neutral in survey which records 14.9% which has to changed so that better inferences can be drawn.

TABLE-8: LACK OF PROPER LINKAGE BETWEEN QUALIFICATION OF EMPLOYEES & MEASURES USED FOR HRD

Opinion	No. of Respondents	%
Strongly Disagree	28	8.0
Disagree	70	20.0
Neutral	27	7.7
Agree	137	39.1
Strongly Agree	88	25.1
Total	350	100.0

Source: Field Work

GRAPH- 8
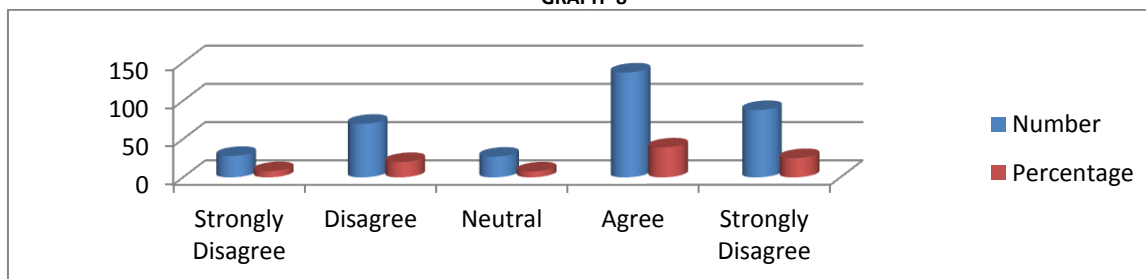
Source: Table – 8

Table-8 shows that whether there is proper linkage between educational qualifications and measures used for HRD in the sample organization and its relevance. It is found that   majority of 225 (64.2%) respondents agree to the point that there is proper linkage between qualifications and used measure in the selected unit for HRD. So the organization has placed the employees based on the qualification and skills required to accomplish the job. Further 98 respondents which accounted for a percentage of 28 disagree to it and further recommends that sample organization should make necessary efforts to create proper linkage to address the problem.

TABLE-9: ABSENCE OF EFFECTIVE FEEDBACK & APPRAISAL SYSTEM

Opinion	No. of Respondents	%
Strongly Disagree	73	20.9
Disagree	131	37.4
Neutral	45	12.9
Agree	63	18.0
Strongly Agree	38	10.9
Total	350	100.0

Source: Field Work

GRAPH-9
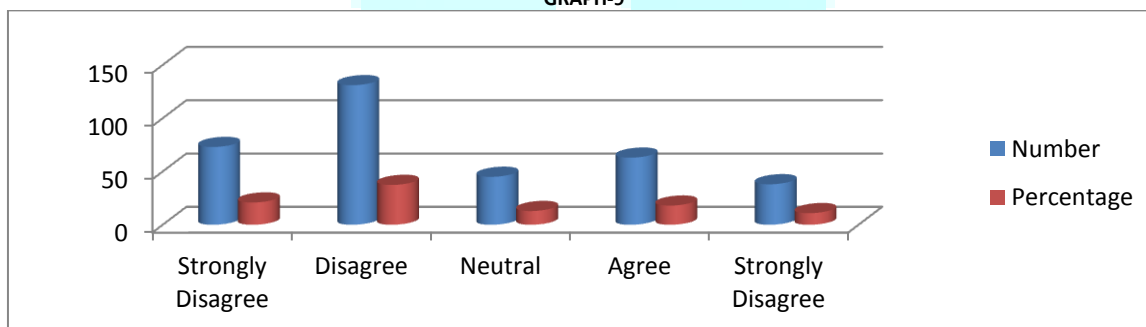
Source: Table – 9

Through table- 9. an attempt is being made to record the perceptions of the respondents on appraisal system of the sample organization and the response to feedback system. The outcome of the analysis states that majority of the respondent's i.e. 204 out of 350 accounting 58.2% disagree that the sample organization lacks in effective feedback system and assessment system. Where as a sum of 101 respondents constituting 28.8% agree that unit does not possess an effective feedback mechanism and doubts on transparency of appraisal and its feedback. In the regard 45 respondents with a percentage of 12.9 resembles to be neutral.

TABLE-10: PRESSURE FROM TRADE UNIONS

Opinion	No.	%
Strongly Disagree	103	29.4
Disagree	88	25.1
Neutral	29	8.3
Agree	82	23.4
Strongly Agree	48	13.7
Total	350	100.0

Source: Field Work

GRAPH- 10
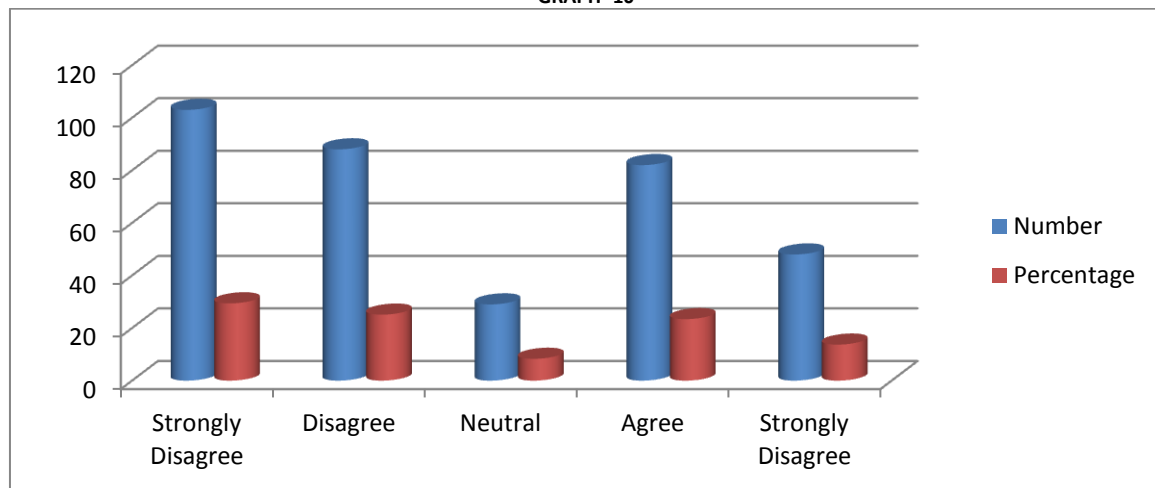
Source: Table – 10.

The above table depicts that the pressure of the trade union is a problem for effectiveness of HRD and its Management and possess a threat to implementation of the HRD in the selected sample organization. In the due course 191 respondents which count for 54.5% disagree that trade union pressure has succumbed the implementation and management of HRD. Further 130 respondents recorded a percentage of 37.14 agree that it is serious issue to be addressed and unit should pacify the trade union, so that HRD can be implemented smoothly by solving associated problems and difficulties in HRD management and implementation.

TABLE-11: WRONG / NEGATIVE PERCEPTIONS OF EMPLOYEES TOWARDS HRD IMPLEMENTATIONS

Opinion	No.	%
Strongly Disagree	81	23.1
Disagree	113	32.3
Neutral	30	8.6
Agree	79	22.6
Strongly Agree	47	13.4
Total	350	100

Source: Field Work

GRAPH- 11
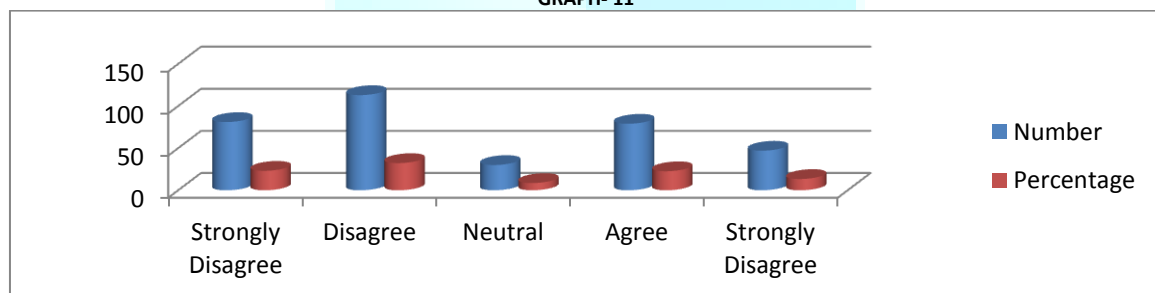
Source: Table – 11.

Table-11 highlights the perceptions of respondents towards HRD with reference to the implementation phase. Majority of the respondents i.e. 194 (55.4%) recorded that employees in the sample organization were not in negative perceptions on HRD implementation and signals that implementation can be effectively carried out as there were no problems and difficulties associated. Further 126 respondents which sizes to a percentage of 36 opined that employees have wrong and negatives perceptions towards HRD implementation and a meager 30 respondents with 8.6% is neutral.

FINDINGS

In the light of empirical study and further analysis of the data, the following findings are drawn.
➢ Majority of the employees are in the age group of 31-40 years.
➢ Majority of the employees are in general qualification as background of education but another feature of the respondents education is that it is quiet heterogeneous and diverse.
➢ More number of respondents are with relatively better experience that is majority of them are having above 15 years of work experience.
➢ Majority of the employees are quiet aware with the HRD concept.
➢ Majority of respondents feel that they are not resistant to the issues of HRD and they were positive and proactive in effective implementation of the HRD and its management.
➢ It is found from the study that even the top management was not resistant to the issue and implementation of the HRD. This was positive step as both employees and top management were interested in overcoming the difficulties faced by the selected sample organization in effective HRD management and its implementation successfully.
➢ Significant number of employees have expressed that they are inclined towards lack of willingness to innovate and technological change this not a good sign for the organization.
➢ It is found from the study that there is proper linkage of employees qualification and measures used for the HRD and it implicates that proper placement is done based on qualifications and skills of the people and indicates to understand the meticulous HRD measures set by sample organization.
➢ From the study it is found that a good number of the respondents feel that the organization is having a strong feedback system and assessment system which leads to growth and promotion.

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➢ Majority of the employees states that the trade unions were not that active to create the pressure on the management. This was not a prominent issue in the sample unit with regard to issues of implementation and difficulties in HRD management.

➢ It is found from the study that majority of the employees were clear perceptions on the implementation of the HRD and found that there are no misconceptions and negativity or wrong perceptions toward HRD implementation which helps to erase the issue and difficulties in implementation.

SUGGESTIONS

➢ The employees should be made to innovate and adjust to technological change in the light of present time. So that issues of the employees can be self solved.

➢ Some of the respondents were hesitant and remained neutral this should be transformed into positive behavior of employees can have desired condition for implementation of HRD.

➢ Organization should make effort to change the mindset and confidence of the workforce to make them prepared to face challenges of innovation and change.

➢ The organization should transform the few respondents perception into positive and make effort that there should no negative thinking so that implementation of the HRD can be carried on smoothly.

➢ The organization should take active steps to ensure high quality workforce in the wake of emerging time of bigger challenges and responsibility.

CONCLUSIONS

The study on the sample PSU shows that the organization has conducive environment for implementation of the HRD and it can lead to manage it in an effective manner. As the respondents are very receptive and inclined towards the HRD activity it is observed that there are no obstacle for implementation process of the HRD. By making use of the HRD activities the organization can improve the people's performance and their productivity at large.

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WORKFORCE DIVERSITY AND ITS IMPACT ON EMPLOYEE PERFORMANCE: A STUDY OF IT COMPANIES IN TAMILNADU

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ABSTRACT

The present empirical study clearly indicate that there is a strong positive impact of workforce heterogeneity on the employee performance. This study mainly focused only on four diversity dimensions - gender, age, educational background and ethnicity - which may have limited the robustness of this research. Since the workforce diversity becomes one of most popular ways to evaluate employee performance in an organization in recent year, the research tends to provide the evidence to support future research related to this field. It is found form the research results that there is a significant relationship of the research variables such as gender, educational background & ethnicity toward employee performance. Business organizations should start realizing the need to be tackled effectively such demographic categories in order to stay ahead of its competitors. The managers and leaders must consider the following points to manage workforce diversity effectively in the IT companies.

KEYWORDS
employee performance, worforce diversity.

INTRODUCTION

Today's global economy is dynamic, interconnected, borderless and cross-functional. Advances in technology and the advent of a global economy bring the people of the world closer together than ever before. Diversity in the workplace means bringing together people of different ethnic backgrounds, religions and age groups into a cohesive and productive unit. Advances in communication technology, such as the Internet and cellular phones, have made the marketplace a more global concept. In order to survive, a company needs to be able to manage and utilize its diverse workplace effectively.

Managing diversity in the workplace should be a part of the culture of the entire organization. Managing diversity focuses on maximizing the ability of all employees to contribute to organizational goals. Ignoring diversity issues costs time, money, and efficiency. Some of the consequences can include unhealthy tensions; loss of productivity because of increased conflict; inability to attract and retain talented people of all kinds; complaints and legal actions; and inability to retain valuable employees, resulting in lost investments in recruitment and training.

The organizations must develop and employ the necessary policies and procedures for attracting and retaining the best and most qualified workers in order to maintain a competitive advantage among their counterparts and increase their effectiveness. To achieve success and maintain a competitive advantage, the organization must be able to draw on the most important resource such as the skills of the workforce. With the increasing richness of diversity in the workforce, the organization needs to expand its outlook and use creative strategies to be successful in retaining the talent pool of employees.

Today's managers are responsible for both leading employees and responding to the needs of customers who are more ethnically and culturally diverse. Leaders in both the public and the private sectors are focusing more attention on the issue of diversity. Whether the goal is to be an employer of choice, to provide excellent customer service, or to maintain a competitive edge, diversity is increasingly recognized and utilized as an important organizational resource.

Leaders and managers within IT companies are primarily responsible for the success of workforce diversity policies because they must ensure that the diversity policies framed and implemented by them should manage the workforce diversity effectively. Managing diversity means acknowledging people's differences and recognizing these differences as valuable. It enhances good management practices by preventing discrimination and promoting inclusiveness. Good management alone will not necessarily help employees work effectively with a diverse workforce.

Managing workforce diversity plays a vital role in the area of management and it is a way to ensure employee retention and greater productivity. The most important issues of workforce diversity are to address the problems of discrimination in terms of gender, age, ethnicity and education background. When diversity is not managed properly, there will be a potential scope for higher turnover of employees, difficulty in communication and interpersonal conflicts. Overall, it will be adversarial to the organization's performance, profitability and reputation.

RESEARCH OBJECTIVES & QUESTIONS
RESEARCH OBJECTIVES
The primary aim of this research is to provide insights and in-depth understanding of the various dimensions of workforce diversity and their impact on employee performance in IT companies. Secondly, the purpose of this research is to identify whether the variables include gender, age, ethnicity and education background would affect employee performance in IT companies. Lastly, the specific objectives of this research are summarized below:
- To throw a light on the antecedents of workforce diversity and their effects on employee bahavious in IT companies.
- To identify whether the variables such as gender, age, ethnicity and education background would affect workforce diversity in an organization.
- To analyze the significant relationship between gender, ethnicity and educational background and their effects on IT employee performance.
- To offer appropriate suggestions for IT companies to implement practices and policies to manage diversity and build an inclusive and harmonious workplace.

RESEARCH QUESTIONS
This study was exclusively designed to identify the various dimensions of workforce diversity and their impact on employee performance in IT companies located in Tamilnadu. The research questions of this proposed study are summarized below:
1. What are the dimensions of workforce diversity that affect the employee behaviours in IT companies.
2. What is the significant relationship of gender, ethnicity & educational background toward employee performance in IT companies?
3. What is the relationship between workforce diversity and its impact on IT employee performance?
4. Why should IT company care about managing workforce diversity?

RESEARCH BACKGROUND

India's workforce has become increasingly diverse over the last decade. Employees from different generations, gender, nationalities and cultures often work together in the same organization. With such workforce diversity, it becomes important for organizations to put in place policies and practices to build an inclusive and harmonious workplace. An inclusive and harmonious workplace is one that appreciates differences amongst workers and works towards maximizing their potential.

The main objective of this research is to identify various dimensions of workforce diversity in IT companies and to analyze the effect of these dimensions on employees' performance. The study also distinguishes the factors that can affect the employees' performance in IT companies. This research study would act as a guideline for the potential new entrants on workforce diversity issues which the company needs to consider before starting its business. The main purpose of the research is to develop a methodology that can be applied to the analysis of workforce diversity and its effect on employee performance in IT companies.

The main thrist of this study is to examine how various dimensions of workforce diversity can potentially affect the employee performance in IT companies. Firstly, a brief review of the dimensions of workforce diversity such as gender, age, ethnicity and education background. Secondly, a past research findings on workforce diversity will be summarized and applied to the employees' performance. Then, the result of an empirical study examines issues related to workforce diversity and its impact on employees' performance in IT companies. Lastly, recommendations will be provided concerning the impact of workforce diversity on employees' performance in IT firms.

REVIEW OF LITERATURE

This review of literature chapter consists of reviews of secondary data that researchers have collected from other journals, books and primary data. It also outlines the literature and relevant theoretical model reviews regarding the impact of workforce diversity on the employee performance. The determinant of variables is necessary to understand to the relationship between the independent variables (gender, age, ethnicity, and education background) and the dependent variable (employee performance). Hypothesis will be formulated based on the relationship between the dependent variables and independent variables.

The literature on workplace diversity contains two main bodies of work. One area focuses on the development of conceptual frameworks for understanding diversity and its impact on employee performance (Jackson, Joshi, & Erhardt, 2003; Webber & Donahue, 2001). The other area presents generalized prescriptions for effectively managing workplace diversity (Mor-Barak, 2005).

WORKPLACE DIVERSITY: CONCEPT AND THEORY

Generally, diversity can be defined as differences relating to gender, ethnicity, age, religion, sexual orientation, physical ability or any other source of difference can have a major impact on employee engagement. With globalization and rising migration, as well as increasing competition to hire, retain and motivate the best employees, companies around the world have to manage diverse workforces.

Workplace diversity is a complex, controversial, and political phenomena (Janssen & Steyaert, 2003). It has been conceptualized by researchers from several viewpoints. Several have looked at it from a narrow perspective, while some others from a broad view (Nkomo, 1995). Scholars favourably disposed to a narrow definition argue that the concept of diversity should be restricted to specific cultural categories such as race and gender (e.g. Cross, Katz, Miller & Seashore, 1994). Some opine that diversity based on race, ethnicity and gender cannot be understood in the same way as diversity based on organizational functions, abilities or cognitive orientations (Nkomo, 1995).

Workforce diversity refers to organizations that are becoming more heterogeneous with the mix of people in terms of gender, age, race, and education background (Robbins, 2009). A diverse workforce for instance, includes gender, age, ethnicity, and education background According to Robbins (2009), workforce diversity has important implications toward management practices and policies. Frequently, diversity is viewed in a limited fashion, primarily addressing issues of race or gender differences, and linked to the laws providing protected status to certain groups. We have used a very broad definition of diversity, to encompass most characteristics that individuals possess that affect the way they think and do things.

Moreover, the key issues of diversity are those that arise because of discrimination and exclusion of cultural groups from traditional organizations (Cross et al., 1994).Therefore, if diversity is a concept that is inclusive to all individuals, it will become very difficult to identify discrimination practices. The main concern of this standpoint is that a broad definition may imply that all differences among people are the same. Thus, diversity studies would then be reduced to the conclusion that 'everyone is different' and, if this conclusion is accepted, the concept of diversity may become "nothing more than a benign, meaningless concept" (Nkomo, 1995). The danger in narrowly defining diversity, however, is that only one dimension of cultural diversity (race, age, ethnicity, or gender) is by and large the subject of research at a time. Since a cultural diversity dimension interacts with other dimensions of diversity, a narrow concept of diversity would be deficient by failing to recognize these interactions (Michaéla, Deanne, Paul, & Janique, 2003).

Scholars, who advocate a broad definition (e.g. Jackson, May & Whitney, 1995) argue that diversity encompasses all the possible ways people can differ. Individuals, according to this school of thought, do not only differ because of their race, gender, age and other demographic categories, but also because of their values, abilities, organizational function, tenure and personality. They contend that an individual has multiple identities and that the manifold dimensions cannot be isolated in an organizational setting. Apart from bringing their race, age, ethnicity, and gender, individuals also come with their particular knowledge, personality, and cognitive style to the work place.

Therefore, in order to understand the dynamics of a heterogeneous workforce, the interactive effects of multi-dimensional diversity have to be addressed. In addition, it is argued that a broadening of the concept of diversity has a potential positive effect on diversity management programs, as it will be more acceptable if it is all inclusive i.e. not only oriented towards specific demographic groups of employees (Thomas, 1991).

McGath, Berdahl & Arrow (1995) conceptualized workplace diversity by developing a five cluster classification. This often cited categorization is as follows: demographic characteristics such as age, ethnicity, gender, sexual orientation, physical status, religion and education; task-related knowledge, skills and capacities; values, views and attitudes; personal, cognitive and attitudinal styles; Status in the organization such as one's hierarchical position, professional domain, departmental affiliation and seniority.

Theoretically, the workplace diversity literature espouses three different theoretical frameworks for the examination of the possible effects of workplace diversity (Williams & O'Reilly 1998). The first is social categorization, which, according to Turner (1987) describes the categorization of people based on salient attributes like gender, ethnicity or age, resulting in stereotyping on the basis of these differences. The second is similarity/attraction theory, which asserts that similarity on salient and non-salient attributes like race or values increases interpersonal attraction and attachment (Berscheid & Walster, 1978). The third is information and decision making theory, which examines the impact of distribution of information and expertise on work-teams (Wittenbaum & Stasser, 1996).

These theories lead to different and sometimes contradictory hypotheses regarding the effects of diversity on group process and performance (Michaéla, Deanne, Paul, & Janique 2003). Social categorization and similarity-attraction theory predict negative effects, such as reduction in within-group communication, decreased satisfaction and commitment, and increased labour turnover. However, from the information and decision-making perspective, positive effects of diversity are hypothesized, mainly because more diverse work-teams are expected to process information differently, as team members may bring together differing viewpoints (Williams & O'Reilly, 1998; Cox, 1993; Pollar & Gonzalez, 1994). This, in turn, is expected to lead to more creativity and increased performance.

Research findings suggest that several factors could be responsible for the conflicts provoked by diversity in work-team composition. Some researchers (Pelled, Cummings, & Kizilos, 1999; Tsui, Egan, & O' Reilly, 1992) have proposed that identifying individual group members with distinct groups (i.e., "out-groups") may disrupt group dynamics. Consistent with this, research on self-categorization theory has shown that out-group members evoke more disliking, distrust, and competition than in group members (Hogg, Cooper-Shaw, & Holz worth, 1993). Moreover, biases against out-group members seem to unfold automatically: the perception of a salient quality (e.g., race, sex) more or less inevitably triggers a corresponding categorization (Fiske & Neuberg, 1990).

In addition, if out-group members come from cultures or sub cultures with which in-group members are unfamiliar, linguistic or paralinguistic differences may foster miscommunication and misunderstanding (Hambrick, Davison, Snell, & Snow, 1998; Palich & Gomez-Mejia, 1999). Less palpable differences associated

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with attitudes, perceptions, and expectations (Palich & Gomez-Mejia, 1999) may pose subtler but nevertheless formidable deterrents to communication and understanding in diverse groups. Together, these factors may combine to make diverse groups a fertile breeding ground for misunderstanding and discord.

Generally, there is empirical support for the assumption that all dimensions of diversity can lead to positive as well as negative effects (Jackson et al., 2003). Social categorization theory, emphasize that similarities and dissimilarities can lead to categorizations which, in turn, lead to favoring one's in-group to the detriment of one or more out-groups social (Tajfel & Turner, 1986). On an intra-group level, this approach is typically referred to as relational demography. Thus, categorizations within a work group (based on an attribute such as gender, race, or age) can lead to the problematic formation of sub-groups ("us" versus "them").

These divergences are likely to manifest themselves as intra-group task conflict. As diversity within a work group increases, such task conflict is likely to increase. Increased diversity generally means there is a greater probability that individual exchanges will be with dissimilar others. Members are more likely to hear views that diverge from their own, so intra-group task conflict may become more pronounced. Also, cognitive tasks in organizations typically demand the experience and knowledge obtained through exposure to functional areas and organizational tenure.

Ancona and Caldwell (1992) noted that for tasks such as those of product development teams, functional background and company tenure are likely to be particularly important because they determine one's technical skills, information, expertise, and one's perspective on an organization's history. Others (Sessa & Jackson, 1995; Milliken & Martins, 1996; Pelled, 1996) have similarly argued that functional background and tenure are especially pertinent to work group tasks. Age, gender, and race, in contrast, are low in job-relatedness.

These empirical evidences notwithstanding, the controversy whether or not there is a positive connection between workplace diversity and organizational performance still persists. Anderson & Metcalfe (2003) reviewed the evidence for managing workplace diversity. They suggested that, while there are claimed gains for workplace diversity, there are also adverse implications. They argued that there is a paucity of stout research examining the impact of diversity upon businesses, which has raised questions about the existence of any connection between workplace diversity and business performance. The business benefits of workplace diversity have been widely contested ever since the idea was conceived. And, even now, there is an ongoing debate as to whether there is indeed any discernable business benefit (Mulholland, Ozbilgin, & Worman, 2005).

Erasmus (2007) mentioned that diversity management and workforce diversity is a forced integration that creates conflict and uncertainty in the workforce as leadership is not skilled in the discipline of diversity management and its principles. As a result, managers do not know how to effectively practice diversity management, and what factors contribute to effective diversity management and task that can deal with diversity related issues in the work place.

According to Dahm (2003), diversity within the workplace can evoke an array of emotions such as some people view diversity as something to be dealt rather than a tool to be used to improve the organization. Even though, many will agree that the results of a diversity-conscious organization add value to the employee and organization. The organizations should embrace diversity in their workforce and work towards achieving it by creating a culture where difference can thrive, rather than working simply for representatives and assimilation (Jehn, Northcraft, & Neale, 1999).

Today, workforce diversity is a global workplace and marketplace topic. Any business that intends to be successful must have a borderless view and an underlying commitment to ensuring that workforce diversity is part of its day-to-day business conduct (Mor Barak, 2005). Besides, understanding the impacts of diversity on organizational outcomes (such as organizational performance, employee satisfaction, and employee turnover) has become essential for the organization.

RESEARCH METHODOLOGY & DESIGN

The research methodology includes research framework; hypotheses formation; research instruments; pilot survey; reliability analysis & Cronbach's alpha; and sampling frame.

RESEARCH FRAMEWORK

As stated earlier, the main objectives of this research are, first, to provide insights and in-depth understanding of the various dimensions of workforce diversity that will affect the employee behaviours in IT companies, and second, to analyze the significant relationships of gender, ethnicity and educational background towards employee performance in IT companies. In order to realize objectives, the research framework is developed as shown in Figure 1. This framework is a simple linear model of relationship between the independent and dependent variables. The antecedents of workforce diversity such as gender, age, ethnicity & educational background as the independent variables. The employee performance of an organization is considered to be the dependent variable of the research model.

The arrows in Figure 1 represent the relationships to be tested in order to achieve the second research objective. Figure 1 indicates that there are four main research variables to be analyzed: gender diversity, age diversity, ethnicity diversity and education diversity. Within each of these research variables, a set of concept variables are included based on related literatures. Each concept variable is measured on a Likert scale of 1-5, where level 5 indicates the highest agreement to the given statement, while 1 indicates the lowest.

FIGURE 1: THE IMPACT OF DIVERSITY IN GENDER, AGE, ETHNICITY AND EDUCATION ON COMPETITIVE EMPLOYEE PERFORMANCE IN AN ORGANIZATION
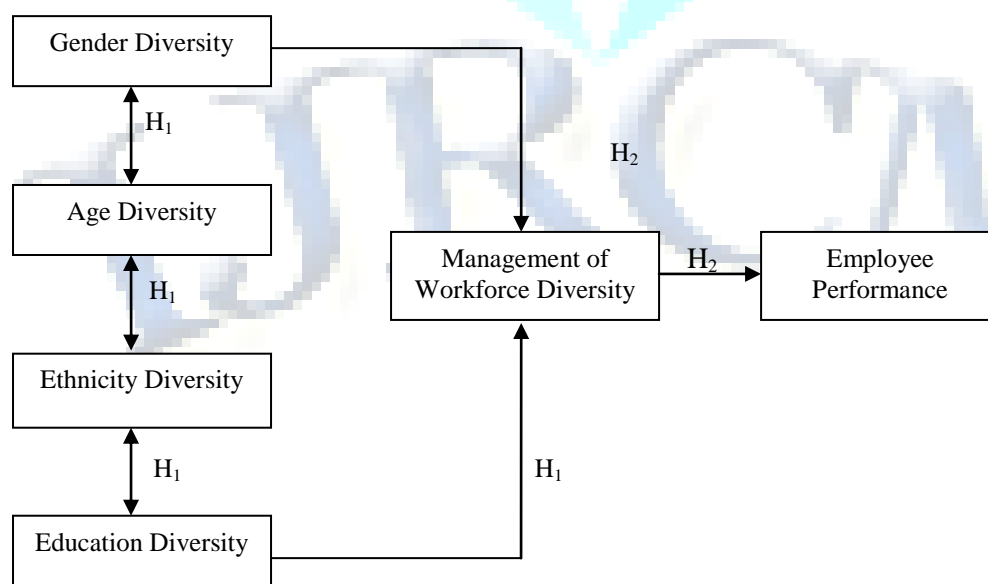
HYPOTHESES OF THE STUDY

In this study, employee performance of IT companies is a dependent variable and gender, age, education background of the employees, and ethnicity are the independent variables. Thus, hypothesis of this study is to find that there is any significant relationship between these dependent variable and independent variables. Either one of these independent variables or some of them do have the positive effect to influence employee performance in IT companies.

H_1: There is no significant relationship of gender, educational background & ethnicity toward employee performance in IT companies.

H_2: The three independent variables (such as gender, education background & ethnicity) are not significant in explaining the variance in employee performance of IT companies.

RESEARCH INSTRUMENT

The development of the research instrument was mainly based on new scales, because the researchers could not identify any past studies directly addressing all of issues discussed in this research. However, and wherever possible, the researchers used validated measures that have been previously applied. The constructs, scale items and factor loadings obtained from exploratory factor analysis are presented on the data analysis section. Two consecutive rounds of pre-testing were conducted in order to ensure that the respondents could understand the measurement scales used in this study. First, the questionnaire was reviewed by the academic researchers experienced in questionnaire design and development and next, the questionnaire was piloted with HR experts known to the researchers.

PILOT SURVEY

In order to prepare an effective questionnaire, a pilot survey of 20 employees was conducted in two IT firms located in Chennai, Tamilnadu. The pilot work took in the form of a personal interview where the participants were first handed a copy of the questionnaire and asked to complete it followed by a discussion on any comments or questions they had with respect to major issues of this study. The outcome of the pre-testing process was a slight modification and alteration of the existing scales, in light of the scales context under investigation. Based on the results and comments from the pilot tests, revisions were made to the questionnaire design.

RELIABILITY ANALYSIS & CRONBACH'S ALPHA

After designing the questionnaire, reliability analysis was done to ensure measurements are reliable for our research. A pilot test is a survey which is done on a small group of respondents to make sure the questions being asked in the questionnaire are reliable. Respondents were asked to comment and suggest any changes to the questionnaire. Most of the feedbacks directed to the comprehensibility of items. Therefore the researcher has modified some of the items to improve quality of the questionnaire. Pilot test minimizes the mistakes made in the questionnaire as well as the difficulties before it is distributed to the targeted respondents. Reliability of the questionnaire was tested as well using reliability test with the help of Statistical Package for Social Science (SPSS) software. The alpha values range from 0.891 to 0.970, which indicates an internal consistency with the alpha value of more than 0.70, so no items were dropped from questionnaire.

TABLE 1: CRONBACH'S ALPHA FOR VARIABLE CONSTRUCTS

Sl.No.	Variable Constructs	Cronbach's α	No. of item
1.	Gender	0.937	10
2.	Age	0.970	5
3.	Education background	0.922	8
4.	Ethnicity	0.891	10
5.	Employee performance	0.957	13

SAMPLING FRAME

The survey reported here was conducted at IT companies located in Tamilnadu. A total of 50 IT companies were selected for the study on the basis of random sampling method. Tamilnadu was chosen as the sample area of the survey because it is considered as one of the major IT hubs in India. The survey population of this study is defined as all employees working in IT firms located in Tamilnadu. A sample size of 130 employees from 50 IT companies located in different geographical areas of Tamilnadu was drawn at random for the study.

A structured questionnaire was used for this complex research project. The data required for the study were purely primary data collected through the structured questionnaire sent to 150 employees who have the general perceptions toward workforce diversity and its impact on the employee performance in the work place. A personal interview was conducted among respondents of 150 employees for collecting reliable data for the research study. This procedure resulted in 130 useful questionnaires or an overall response rate of 86.67%.

DATA ANALYSIS, RESULTS & DISCUSSIONS

The data analysis, results and discussions of the study are summarized below:

DEMOGRAPHIC PROFILE OF RESPONDENTS

From the survey, it is observed that a majority of the respondents are female (90%) and 40% are male. With respect to age groups, 30% belong to below 25 years of age, 35% belong to 25-35 years of age, 20% belong to 36-45 years of age, and remaining 15% belong to above 45 of years. With respect to educational level, majority of the respondents are graduates (40%), 30% are post graduates, remaining 30% have completed advanced computer course. It is also found from the study that most of the respondents fall under the annual income level of 5-10 lacs (40%), 25% fall under 11-20 lacs, 25% fall under above 20 lacs, and remaining 10% fall under below 5 lacs. With respect to marital status, 60% of the respondents are single and 40% of them are married. Regarding diversity of the employees, people in Tamilnadu have diversity in their culture, taboos, values, religion, caste, etc. This research study is useful in accessing the value of workforce diversity in the IT organizations.

In terms of nature of organization, 60% of the respondents work for core IT sector, 20% work for ITES, 20% work for BPO. With respect to work experience, 25% of the respondents have below 5 years of experience, 25% have 5-10 years, 25% have 11-15 years, and 25% have above 15 years of experience. It is found from the survey 85% of the employees are permanent and 15% are contract employees. It is also found that most of the respondents live in nuclear family (60%) and remaining 40% live in joint family.

DESCRIPTIVE STATISTICS RESULTS

Descriptive analysis is where raw data are transformed into a form that will make researchers easier to understand and interpret, rearranging, ordering and manipulating data to provide descriptive information. It is used to determine the main tendencies of the variables. Certain measures like mean, standard deviation and t-distribution are forms of descriptive analysis used to describe the sample data matrix in such a way as to portray the typical respondent and to reveal the general patterns of responses **(Burns and Bush, 2006).** The main objective of this research is to analyze how the factors of workforce diversity affect the employee behavious in an organization. Descriptive analysis helps the researcher to find out the factors of workforce diversity that determine the employees' behavious in an organization.

Measurement of central tendencies is used to discover the mean scores for the five interval-scaled constructs. A total of 46 items (questions) with particular mean score were obtained from the SPSS output. All of the items/questions were being asked using 5-point Likert scale with 1 indicating Strongly Disagree, 2 indicating Disagree, 3 indicating Neutral, 4 indicating Agree, and 5 indicating Strongly Agree. The percentage, mean, standard deviations and t-values of responses for each of the items for gender, age, ethnicity, educational background and employee performance are shown in the following Tables.

1. GENDER DIVERSITY

The employees were asked to rate the statements regarding gender-based factors that determine the workforce diversity in the workplace on a scale of 1 to 5. The aim is to prioritize gender-based workforce diversity constructs which the employees have observed to be most significant in their workplace. According to Table 2, the results are found to be very different from the mid-point 3.0. It is clear that most of the training and development programs designed by the

organization will meet the criteria/requirements of both male and female. Common training and development programs for both male and female was observed to be most significant at 0.1 level of significance. Followed by this, the other most significant gender-based workforce diversity constructs are same career development for all employees (Mean Score=4.33), equal opportunities for growth and advancement exist for both male and female (Mean Score=4.17), The organization does a good job of attracting and hiring employees based on their competency but not on their gender (Mean score=3.83), employees have positive attitude toward gender diversity in this workplace (Mean Score =3.58) and the employees were not discriminated on the gender basis by employer while hiring and recruiting them (Mean Score=3.50).

TABLE 2: GENDER-RELATED FACTORS THAT DETERMINE WORKFORCE DIVERSITY IN WORKPLACE

Construct Variables	Mean	S.D	t
1. Gender discrimination in recruitment process.	3.50	1.35	0.37
2. Competency-based hiring of employees.	3.83	1.35	-0.13
3. Fair Treatment for both male and female.	2.83	1.35	0.61
4. Equal growth opportunities for both male & female.	4.17	1.54	0.76
5. Same career development for all employees.	4.33	1.71	0.78
6. Common Training and Development Programs.	**4.88**	**1.85**	**0.88**
7. Women are more family oriented.	2.00	1.48	0.68
8. Equal opportunity in decision making.	2.50	1.48	-0.34
9. Same performance criteria for both male & female.	1.21	0.81	-0.24
10. Positive Gender diversity in this workplace.	3.58	1.51	-0.28

2. AGE DIVERSITY

The Table 3 presents a set of constructs that influence employee attitude toward workforce diversity based on age-related factors. The respondents were asked to rate the age-based workforce diversity factors in their workplace on a Likert scale of 1 to 5. From the Table 3, it is observed that the construct factors of the age differences in work group might cause a conflict in the work place, positive attitude about age diversity in the workplace, and equal opportunity for training & career development for all employees who belong to different age groups were found to be most significant at 0.1 level of significance.

TABLE 3: AGE-RELATED FACTORS THAT DETERMINE WORKFORCE DIVERSITY IN WORKPLACE

Construct Variables	Mean	S.D	t
1. Equal opportunity for training & career development for all.	3.83	1.21	0.69
2. Members at different age groups in problem solving and decision making process.	2.42	1.17	-0.50
3. Conflict in work group due to age differences.	**4.19**	**1.41**	**0.72**
4. Lack of bonding with people of different age groups.	1.83	1.60	-0.73
5. Age diversity in this workplace.	4.17	1.72	0.73

3. EDUCATION DIVERSITY

The Table 4 portrays a set of construct variables that describe the employee attitude toward educational background and its influence on workforce diversity in the organization. The employees were asked to rate how education-based factors affect employees' bahavious in their workplace on a Likert scale of 1 to 5. It is inferred from the Table 4 that the construct factor of the recruitment plan of the organization, which is prepared based on the education background of the employees has secured a highest mean score of 4.43 and was the significant at 0.1 level of significance. The other significant education-related factors that determine the workforce diversity in workplace are lack of confidence by the employees due to low education background (Mean Score=3.83) and employees have the positive attitude toward education diversity in the workplace (Mean Score=3.73).

TABLE 4: EDUCATION BACKGROUND-RELATED FACTORS THAT DETERMINE WORKFORCE DIVERSITY IN WORKPLACE

Construct Variables	Mean	S.D	t
1. The recruitment plan is based on the education background.	**4.43**	**1.41**	**0.72**
2. Paid study leave for employees.	2.12	1.48	0.68
3. Opportunity for education for lower qualification employees.	1.91	1.21	0.69
4. Conflict due to difference in education background.	2.42	1.72	0.73
5. Lack of confidence due to my education background.	3.83	1.60	0.31
6. All members at different education level in decision making.	2.71	1.57	0.53
7. Equal treatment in diversity of education background	2.13	1.60	-0.73
8. Education diversity in this work place.	3.73	1.41	0.72

4. ETHNICITY DIVERSITY

One of the research objectives is to throw a light on the antecedents of ethnicity and its influence in the workplace. In order to achieve this objective, the employees were asked to rate the statements that describe ethnicity-based workforce diversity on a scale of 1 to 5. The aim is to find whether ethnicity of the employees affects their work behavious in the organization. According to Table 5, the results are found to be very different from the mid-point 3.0. It is clear that training and development programs designed by the organization will meet the criteria/requirements of both male and female. Common training and development programs for both male and female were observed to be most significant at 0.1 level of significance. Followed by this, the other most significant gender-based workforce diversity constructs are same career development for all employees (Mean Score=4.33), equal opportunities for growth and advancement exist for both male and female (Mean Score=4.17), The organization does a good job of attracting and hiring employees based on their competency but not on their gender (Mean score=3.83), employees have positive attitude toward gender diversity in this workplace (Mean Score =3.58) and the employees were not discriminated on the gender basis by employer while hiring and recruiting them (Mean Score=3.50).

TABLE 5: ETHNICITY-RELATED FACTORS THAT DETERMINE WORKFORCE DIVERSITY IN WORKPLACE

Construct Variables	Mean	S.D	t
1. Attracting & hiring minority people	3.09	1.28	0.25
2. Equal growth & advancement for minority people	3.52	1.86	0.37
3. Concern about traditions, customs, cultures, beliefs & values	**4.56**	**1.73**	**0.82**
4. Different languages speaking employees	2.42	1.17	-0.50
5. Problem in communication due to different languages.	1.83	1.48	-0.79
6. Low self-esteem due to ethnicity	4.17	1.60	0.73
7. Conflict due to ethnicity in educational difference	2.83	1.72	-0.10
8. Members at different ethnicity in decision making.	2.73	1.47	0.32
9. Less effective workgroups due to ethnicity	2.33	1.82	0.52
10. Ethnicity diversity in this work place	3.41	1.29	-0.46

5. EMPLOYEE PERFORMANCE

Table 6 shows the construct variables that indicate the employee performance in the workplace. The employees have been asked to rate the factors that were felt to be the most significant for improving employee performance in an organization on a Likert scale of 1 to 5. The results of the analysis show that the enjoyment of doing assigned tasks is the primary significant factor that determines the employee performance and was significant at 0.1 level of significance. It is observed form the Table 6 that the other significant factors that affect employee performance and were found to be scored more than mid-point 3 are commitment to the mission and direction of the organization (Mean=4.17), co-operation with my colleagues of different ethnicity (Mean=4.00), improvement of task performance by continuous training (Mean=3.33), motivation to complete the assigned tasks (Mean=3.17) and good performance is needed for the future growth (Mean=3.00).

TABLE 6: CONSTRUCT VARIABLES THAT DETERMINE THE EMPLOYEE PERFORMANCE

Construct Variables	Mean	S.D	t
1. Enjoyment of doing my tasks.	**4.33**	**0.52**	**6.32**
2. Commitment to the organization's mission.	4.17	0.41	7.00
3. Motivation to complete tasks assigned.	3.17	0.75	0.54
4. Co-operation with my colleagues of different ethnicity.	4.00	0.63	3.87
5. Enjoyment in working with opposite gender.	2.33	0.52	-3.16
6. Salary is based on my performance.	2.00	1.10	-2.24
7. Satisfaction with current salary level.	2.33	0.52	-3.16
8. Chance to use own method of doing the job.	2.67	0.82	-1.00
9. Improvement of task performance by training.	3.33	0.52	1.58
10. Performance is needed for the future growth.	3.00	1.10	0.00
11. Active participation in decision making.	2.00	0.63	-3.87
12. Performance in multicultural workforce.	1.83	0.75	-3.80
13. Management of work force diversity	2.33	0.52	-3.16

MULTIPLE REGRESSION ANALYSIS (MRA)

The multiple regression analysis is performed to test the second hypothesis (H_2) of the study. The second hypothesis (H_2) of this study was framed to explore the impact of Gender Diversity, Educational Background Diversity and Ethnicity Diversity on Performance of the Employees. The second hypothesis (H_2) of this research study can be expressed in a multiple linear regression equation as described below:

Employee Performance = Constant + B_1 Gender Diversity + B_2 Educational Background Diversity + B_3 Ethnicity Diversity + ε

Table 7 shows that 74.3 percent of the observed variability in the employee performance is explained by the three independent variables ($R^2 = 0.743$, Adjusted $R^2 = 0.737$). To test the equivalent null hypothesis that there is no linear relationship in the population between the dependent variable (employee performance) and the independent variables (Gender Diversity, Educational Background Diversity and Ethnicity Diversity), the ANOVA in Table 8 is used. Results from Table 8 shows that the ratio of the two mean squares (F) was 116.537 (F-value = 116.537, P < 0.001). Since the observed significance level was less than 0.001, the three variables have a positive influence on performance of the employees. To test the null hypothesis that the population partial regression coefficient for a variable is 0, t-statistic and its observed significance level were used. The results are shown in Table 9.

Results from Table 9 indicate that we can safely reject the null hypotheses (H_o) that the coefficients for Gender Diversity ($\beta = 0.219$, t = 2.731, p <0.01), Educational Background Diversity ($\beta = 0.554$, t = 7.477, p < 0.001), and Ethnicity Diversity ($\beta = 0.173$, t = 2.685, p < 0.01) are 0. The β weights show that Gender Diversity ($\beta = 0.219$) have a significant positive influence on the employee performance. Similarly, the β weights show that Educational Background Diversity ($\beta = 0.554$) have a strong significant positive influence on employee performance. Finally, the β weights show that Ethnicity Diversity ($\beta = 0.173$) have a positive influence on the employee performance.

Multicollinearity between the independent variables was minimal, as shown by the values of tolerance (0.330 for Gender Diversity, 0.387 for Educational Background Diversity, and 0.511 for Ethnicity Diversity) and VIF that was less than ten for all the three independent variables indicating that the results were reliable. These results support the second hypothesis (H_2).

TABLE 7: MULTIPLE REGRESSION RESULTS FOR THE IMPACT OF GENDER DIVERSITY, EDUCATIONAL BACKGROUND DIVERSITY AND ETHNICITY DIVERSITY ON EMPLOYEE PERFORMANCE

SUMMARY OF MULTIPLE REGRESSION				
Model	Multiple R	R^2	Adjusted R^2	Std. Error of the Estimate
1	0.862[a]	0.743	0.737	0.572
Note: [a]Predictors: (Constant), Gender Diversity, Educational Background Diversity and Ethnicity Diversity				

TABLE 8: ANOVA RESULTS FOR THE IMPACT OF GENDER DIVERSITY, EDUCATIONAL BACKGROUND DIVERSITY AND ETHNICITY DIVERSITY ON EMPLOYEE PERFORMANCE

Summary of ANOVA[b]						
Model		Sum of Squares	*df*	Mean Square	F	Sig.
1	Regression	114.405	3	38.135	116.537	0.000[a]
	Residual	39.595	121	0.327		
	Total	154.000	124			
Note: [a]Predictors: (Constant), Gender Diversity, Educational Background Diversity and Ethnicity Diversity						
Dependent Variable: Employee Performance						

TABLE 9: RESULTS OF REGRESSION COEFFICIENTS FOR THE IMPACT OF WORKFORCE DIVERSITY ON EMPLOYEE PERFORMANCE

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		Beta (B)	Std. Error	Beta (β)			Tolerance	VIF
1	(Constant)	-0.279	0.227		-1.230	0.221		
	1. Gender Diversity	0.307	0.113	0.219	2.731	0.007	0.330	3.033
	2. Education Diversity	0.661	0.088	0.554	7.477	0.000	0.387	2.583
	3. Ethnicity Diversity	0.237	0.088	0.173	2.685	0.008	0.511	1.955

Results of Regression Coefficients[a]

Note: [a]Dependent Variable: Employee Performance

LIMITATIONS OF THE STUDY

There are numbers of limitation that are identified during the progress of completing this research study. Firstly, a major problem that can never be eliminated during the process of generating information is respondents' bias. This is where respondents may not willing to participate in the survey because answering the questionnaires will be time consuming and does not bring any benefits to them. Therefore, the unresponsive and inactive behavior of the respondents may affect them to provide inaccurate answer in questionnaire. This consequence had limited us from obtaining the reliable information related to the study.

Secondly, researchers should achieve consensus on how workforce diversity is view and to develop a generally accepted definition of workforce diversity, thus allowing more researches to take place to explore more benefits and implications of workforce diversity towards organizations' performance.

Thirdly, measurements and items adapted from other researches should be adjusted to fit into the research's context. Validity test should be done to assure the validity of the measures. Future researches should expand sample size to better represent the population for better and more accurate results.

RECOMMENDATION FOR FUTURE STUDY

This study can serve as a guideline for future research. The focus of the study is on the gender, age, ethnicity, and education background of the employees and whether these variables affect their performance in an organization. Firstly, our result is a comparison on the performance of the individual employee and had no comparison based on team performance. Hence we believe that future research can go deeper in this area.

Secondly, the researcher should achieve consensus on how workforce diversity is viewed and to develop a generally accepted definition of workforce diversity, thus allowing more researches to take place to explore more benefits and implications of workforce diversity towards organizations' performance.

Thirdly, measurements and items adapted from other researches should be adjusted to fit into the research's context. Validity test should be done to assure the validity of the all the measures that determine the workforce diversity. Future researches should expand sample size to better represent the population for better and more accurate results.

Last but not least, since this study only focuses on quantitative measure, future works are encouraged in several areas in both quantitative and qualitative measures. It is recommended that future research can get a better understanding for the effects of workforce diversity towards both employee performance and organizational performance in order to go deeper for the study.

CONCLUSION & MANAGERIAL IMPLICATIONS

Today, there is a wide spectrum of organizational response to managing workforce diversity. There are some organizations responding to legal mandates; others are focused on discrete programs and policies; still others are implementing broad HR diversity strategies to foster change in culture and work processes. Based on the results showed above, the overall effects of workforce diversity (gender, age, ethnicity and education background) towards the employee performance are significant in most of the ways.

The findings of this empirical study clearly indicate that there is a strong positive impact of workforce heterogeneity on the employee performance. This study mainly focused only on four diversity dimensions - gender, age, educational background and ethnicity - which may have limited the robustness of this research. Since the workforce diversity becomes one of most popular ways to evaluate employee performance in an organization in recent year, the research tends to provide the evidence to support future research related to this field.

It is found form the research results that there is a significant relationship of the research variables such as gender, educational background & ethnicity toward employee performance. Business organizations should start realizing the need to be tackled effectively such demographic categories in order to stay ahead of its competitors. The managers and leaders must consider the following points to manage workforce diversity effectively in the IT companies.

a) Identify the organization's need for an inclusive and harmonious workplace, have a clear vision of what the organization wants to achieve in diversity management and set out the implementation plan for diversity strategy.

b) Organizations which create an inclusive and harmonious environment enhance their reputation with job seekers, allowing them to attract the best workers in the market.

c) Employees who feel included, valued and rewarded are more engaged and motivated. In a worldwide survey of 3 million employees on diversity, employee satisfaction and organizational performance, it was found that creating an inclusive and harmonious environment was a key driver in employee engagement and commitment.

d) Greater employee engagement leads to reduced turnover. A study conducted by Gallup Management Group during 2008 in the United States revealed that engaged employees had 51% lower turnover on average.

e) Senior management plays three key roles in building an inclusive and harmonious workplace:

- Demonstrate commitment and accountability by identifying relevant performance measures in diversity management and monitoring progress regularly and assigning of resources (e.g. personnel, budget) to diversity management initiatives.

- Communicate the importance of an inclusive and harmonious workplace to set the tone for the organization. This can be articulated during management meetings, company events, or informal sessions with employees.

- Be a role model for behaviour expected of managers and employees by participating actively in initiatives to promote an inclusive and harmonious workplace (e.g. training, workplace activities, employee network groups, etc.), and living the organization values and demonstrating inclusive behavior.

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DIRECT AGRICULTURAL MARKETING: A STUDY OF UZHAVAR SANDHAI (FARMERS' MARKET) IN SALEM DISTRICT

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ABSTRACT

Agriculture occupies a very important role in the growth of economy of our country, which is also the backbone of the economic system. India is primarily an agricultural country. Agriculture marketing is a method of buying and selling of agricultural products. It determines the value of the agricultural product in terms of money and delivers them to the final customer. Most of the farmers sell their produce through village level markets, fairs, Mandies, Co-operative Societies etc. In the above process of agricultural marketing, the middlemen exploit farmers as well as consumers. In order to eliminate the middlemen between farmers and consumers, the Government of Tamil Nadu introduced the new concept, namely "UZHAVAR SANTHAI" in 1999. In this system, the farmers sell agricultural produce directly to the ultimate consumers. Hence, in this study, an attempt has been made to study the direct agricultural marketing called "Uzhavar Santhai".

KEYWORDS
Farmers Market, Performance of Farmers Market, Direct agricultural Marketing, Uzhavar Sandhai.

INTRODUCTION
Uzhavar Sandhai (Farmers' Market) was introduced with a view to eliminate the middlemen and arrange facilities for the farmers to sell their produce directly to the consumers at reasonable rates fixed every day. The scheme benefits both the farmers and the consumers. Regulated market yards for fruits and vegetables are functioning only at a few centers. The marketing system for fruits and vegetables is now in the hands of middlemen. Middlemen exist at various levels between the farmers and the consumers and exploit through malpractices in weighing, handling and payments. Large Number of small farmers are unable to effectively bargain for better price in the wholesale market. Inefficiencies in the wholesale markets result in a long chain of intermediaries, multiple handling, and loss of quality and increase the gap between the producer and consumer prices. Large number of small retailers, each handling small quantities, create high overheads leading to high margin on produces.

DIRECT AGRICULTURAL MARKETING
"Direct Marketing" is perhaps the only channel suitable for both the consumers and cultivators. Direct marketing of agricultural produce helps to eliminate middle men and commission agents who charge high commission fees from the farmers coming to the markets for selling their produce and then artificially inflate the retail prices. Direct marketing of agricultural produce helps in eliminating middlemen and makes the farmers directly responsible for selling his/her produce. This helps in ensuring financial returns for farmers as well as increased consumer satisfaction. Many Indian states have adopted the concept of direct agricultural marketing.

UZHAVAR SANTHAI (FARMERS' MARKETS) IN TAMIL NADU
Uzhavar Sandhai is one of the most successful models of direct agricultural marketing in the country. The idea of setting up marketplaces which directly link producers and consumers and exclude traders and middlemen in Tamil Nadu is called as 'Uzhavar Santhai' (Farmers' Markets), started during 1999. The major objectives of Farmers' markets in Tamil Nadu are to: eliminate middlemen and traders from the marketing of vegetables in the Farmers' markets; establish direct contact between farmers and consumers; maintain stability in the prices of fresh vegetables and fruits; increase coordination between the agriculture and the horticulture departments; act as information centers for the marketing of fresh vegetables and fruits, and promote awareness and to provide training in relation to the preservation and packaging of perishable fresh vegetables and fruits. This has been fairly successful. Many of the farmers depend on rains for vegetable growing and hence there are vagaries of nature that need to be understood.

AIM OF UZHAVAR SANDHAI (FARMERS' MARKET)
- To facilitate direct contact between the farmers and public.
- To provide fresh vegetables and fruits at reasonable price daily without any interference of middlemen.
- To provide correct measurement to the consumers.
- To give full satisfaction to the farmers and public.
- To aim for providing higher price than that of wholesale price to the farmers for their vegetables and fruits.
- To provide the fresh fruits and vegetables at the lesser price than that of retail price to consumers.

FUNCTIONS OF UZHAVAR SANDHAI (FARMERS' MARKET)
- Shops are allotted to identified farmers on first came first served basis.
- The Prices are exhibited in sign boards as in each shop.
- Weighting scales are provided for the use of farmers and they are retrieved after the sale proceedings are over.
- The day – to – day functioning of the market is being recorded and weekly reports sent to Govt. Through the commissioner of Agriculture marketing, who is nominated as the Nodal officer for implementation of the scheme.
- Price fixation is the most important aspect of running of Uzhavar Sandhai and different sources of information must be used to collect prices on a daily basis.
- The entire Uzhavar Sandhai must farmer's Information Centers run by the Horticulture and Agriculture Departments.

NEED FOR THE STUDY

The basic elements of agriculture system are production and marketing. Marketing of agriculture produce is an important as the production itself. As a link between producer and consumer, marketing plays an important role not only in stimulating and consumption but also in increasing the pace of economic development. Marketing of agricultural produce is considered as an integral part of agriculture, since an agriculturist is encouraged to make more investment and to increase production. This is an interesting aspect to find out the various trends happening in the field of marketing of agricultural produce.

OBJECTIVES OF THE STUDY

➢ To study the Socio – economic profile of the farmers who participate in the Uzhavar Sandhai.
➢ To evaluate the consumers perception towards farmers' markets.

DATA & METHODOLOGY

This study is an empirical based on survey and analysis method. Data has been collected from both primary and secondary sources. For collecting primary data, a sample of 100 regular purchasers of vegetables at Uzhavar Sandhai's from Salem District was selected through convenience sampling method. A structured questionnaire was administered among the consumers to collect primary data. Secondary data has been collected from newspapers, journals, and magazines and through informal discussion with officials of the department concerned.

LIMITATION OF THE STUDY

1. It is also assumed that the respondents are true and honest in expressing their views.
2. The study is applicable only to Uzhavar Sandhai's (Farmers' Market) in Salem District and not to any other similar areas.
3. For want of time, only 100 respondents were contacted.

TABLE 1: GENERAL PROFILE OF THE RESPONDENTS

Factors	Classification	No. Of Respondents	Percentage
Sex	Male	20	20 %
	Female	80	80 %
Age	21-35	10	10 %
	36-50	30	30 %
	Above 50	60	60 %
Family Income	Below 4000	10	10 %
	4001-6000	12	12 %
	6001-8000	10	10 %
	8001-10000	30	30 %
	Above 10000	38	38 %
Educational Qualification	Illiterate	13	13 %
	School level	51	51 %
	Diploma level	36	36 %

Sources: Primary Data

Inference

Regarding personal profile of the consumer, the above table shows that 80% of the respondents are female, 60% of the respondents are having the age of above 50 years, and then the earnings of the family is above 38% under the income group of above Rs.10,000.The educational back ground indicates that 51% of the respondents are school levels.

TABLE 2: DISTANCE TRAVELLED BY THE RESPONDENTS

Distance Travelled	No	Percent
Below 2 km	55	55 %
3km-5km	28	28 %
6km-8km	10	10 %
Above 8km	7	7 %
Total	100	100 %

Sources: Primary Data

Inference

It was found that the majority of the respondents' travelling distances are Below 2 km (55%), followed by 3km – 5km (28%).

TABLE 3: HOW MANY DAYS BUY THE VEGETABLES

Days	No	Percent
Weekly one day	43	43 %
Weekly 2-4 days	48	48 %
>4days	9	9 %
Total	100	100 %

Sources: Primary Data

Inference

It was found from the survey that most of the respondents were purchasing the vegetables weekly 2-4 days (48 %), followed by weekly one day (42 %).

TABLE 4: DISTRIBUTION OF MONEY SPENT BY AGE

		Age						Total	
		<=35		36-50		Above-50		No.	%
		No.	%	No.	%	No.	%		
Money spent for Purchasing in Uzhavar Sandhai	50-100	7	25.9	10	19.2	10	47.6	27	27.0
	101-200	13	48.1	32	61.5	10	47.6	55	55.0
	201-400	7	25.9	10	19.2	1	4.8	18	18.0
Total		27	100.0	52	100.0	21	100.0	100	100.0

Sources: Primary Data

Inference

The above table shows that among the respondents of different age groups, 48.1% of the respondents in the age group 35 yrs or below spent an amount of Rs.101-200 where as 61.5% of the respondents in the age group of 36-50 years spent Rs.101-200 at Uzhavar Sandhai. Among the respondents of above 50 years age group 47.6% spent between Rs.50 and Rs.100 and another 47.6% of the respondents spent Rs.101-200. In order to find whether there is any significant relationship between money spent and age of the respondents the following hypothesis was framed and tested.

HYPOTHESIS

There is no significant relationship between money spent at Uzhavar Sandhai and age of the respondents.

CHI-SQUARE TEST

	Value	df	Sig.
Chi-Square	8.354	4	NS

Table value 9.488

Result: Chi square test was applied to find whether there is significant relationship between money spent and age of the respondents. The calculated value of Chi square is 8.354 which is less than the table value of 9.488 at 5 % level of significance. Since the calculated value is less than the table value it is inferred that there is no significant relationship between money spent and age of the respondents. Hence the hypothesis is accepted.

TABLE 5: LEVEL OF SATISFACTION BASED ON AGE

		Satisfaction score		
		Mean	S.D	No.
Age	<=35	17.22	1.09	27
	36-50	17.38	1.63	52
	Above-50	17.71	1.42	21
TOTAL		17.41	1.46	100

Inference

From the above table, it is seen that the satisfaction scores are almost same for all age categories. While the average satisfaction score is 17.22 for the age group 35 years and below, the average satisfaction score for respondents above 50 years is 17.71. In order to find whether the average satisfaction scores vary significantly among the age groups, the following hypothesis was framed and tested.

Hypothesis

The satisfaction scores do not differ significantly among age groups.

ANOVA FOR SATISFACTION SCORE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.930	2	1.465	.686	NS
Within Groups	207.260	97	2.137		
Total	210.190	99			

Table value 3.090

Result: One way ANOVA was applied to find whether the mean satisfaction scores differ significantly among the given age groups. The ANOVA result shows that the calculated F ratio value is 0.686 which is less than the table value of 3.090 at 5 % level of significance. Since the calculated value is less than the table value it is inferred that the satisfaction scores do not differ significantly among the age groups. Hence the Hypothesis is accepted.

FINDINGS

- Majority 52 % of the respondent are 36-50 years old.
- Majority 54 % of the respondent are female.
- The study revealed that majority customers (48 percent) purchase vegetables 2-4 times in a week at Uzhavar Sandhai's.
- Majority 51 % of the respondent are school level education.
- Moreover, customers were mostly satisfied with the statement like; availability of product variety in the market and right measurements in the market which means the market is functionally good.

SUGGESTIONS

- ❖ Communication strategy must be developed so that the department of agriculture will become more evident and relevant to the farmers and customers it serves.
- ❖ Grater collective efforts must be made to promote agricultural markets. Develop promotional strategies for local and national level markets.
- ❖ Sellers should make a positive impact on the customers mind by their courteous behaviour.

CONCLUSION

The Uzhavar Sandhai's a unique fair farmers' market mode which is capable of providing answers to several challenges put forth by the globalization of agriculture. One of the positive aspects of the Sandhai is that it does not require much training because all that is required is the introduction of the concept off air farmers' market. Organized innovations and institutional structures do not come that easily within the circle of poor and small and marginal farmers without support from government bodies. Such thought processes may not cross farmers' minds as they are for the most part engaged in thinking about their future prospects and family problems created by low income levels and the lack of market for their produce. Thus, if they are given the required simple training in marketing techniques, they can decide what to cultivate, at what time to sell, at what price and to whom.

So, what has been done effectively in Tamil Nadu should be practiced by others at governments in their own innovative ways. This will surely improve farmers' and agricultural labourers' lives, and will ultimately help the agriculture sector growth in the economy.

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CONSUMER PERCEPTION TOWARDS ORGANIC FOOD PRODUCTS (OFPS) IN INDIA: WITH SPECIAL REFERENCE TO UDAIPUR CITY

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ABSTRACT

Consumers worldwide are becoming health conscious and are concerned about nutrition (Hart, 2000) and the quality of food consumed. Consumers are also increasingly concerned with food safety issues taking into consideration Gil, Gracia and Sanchez (2012) have investigated that consumers are getting health conscious and are paying more attention to quality of food consumed. Therefore, food must deliver an added value that are sought after by consumers besides basic hedonistic and functional needs such as nutrition, taste, health, favorable price-quality ratio, etc., in the selection of food. This added value may be perceived in the form of ecological, social and individual benefit. The history of the organic food industry explores an effort to establish a foundation pertinent to the succeeding information. The study looks into consumers' perceptions towards organic food examined. A study on consumer perception towards organic food products may add insight into the nascent but emerging organic food industry in India. The review of related literature in the area of organic food products and consumer perception studied has provided many insights for the study. A number of researchers have identified various factors that influence consumer perception of organic food products mainly in developed countries. Some studies have also been undertaken in Asian countries like Malaysia and Indonesia. Very few researchers have attempted to focus in detail the various factors that influence consumer perception towards organic food. Having reviewed several studies and having identified the gap, the investigator felt an imperative need to undertake the present investigation.

KEYWORDS
Organic Food Products (OFPs) and Psychographic Factors & Demographic Factors Influencing Consumer Perception.

INTRODUCTION
The organic food market in India is at a nascent stage. Country specific research undertaken by A.C. Neilsen in 2006 has indicated that Indians are among the top ten buyers of food with health supplements but lack access to organic food products. Due to high logistic cost & low volume operation, organic food products are costly. However, India is an emerging player in the export market with billions of export potential. Also the domestic market is characterized by limited retail presence, low certified branded produce and a small range of organic product offerings with respect to varieties though marginal growth is becoming evident.

Four main factors may have contributed to the growth of the organic markets in India:

- An increasing level of consumer knowledge about organic, in parallel with increasing dissatisfaction with conventional food and environmental concerns;
- Higher levels of consumer trust in the organic origin and in the certification labels of the products;
- Increasing demand of organic produce, especially due to the recent European food crisis and scandals; and
- The involvement of big food retailers in Organic is another factor that can explain an increasing proportion of organic foods in the total amount of food consumption in India.

Some of the exclusive retail outlets selling organic food products in and around Udaipur are Down to earth, shristhi organics, sanjeevani stores, ADITYA Birla group's More outlet etc. Branded organic food products like ProNature, Navadarshanam, ITC's Aashirvaad Organic Spices, etc., are also available at most super-markets. Arogya, Jaivika Krishik Society, Econet, Janodaya, shristhi organics, sarkari super markets, Green Channel, , Health Foodzone.

Figure 1. Framework of factors which affect organic consumer attitudes and purchase decisions
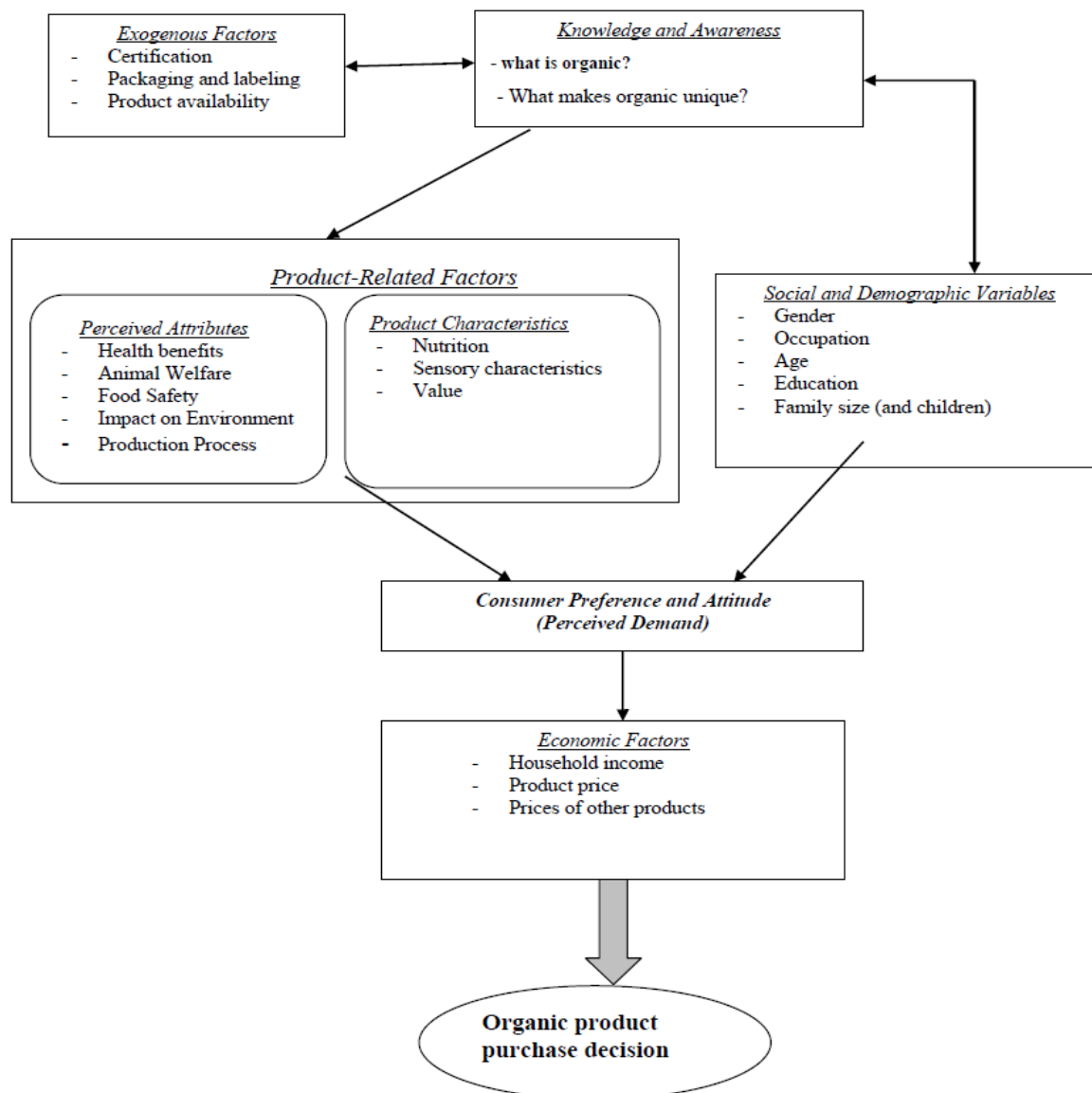
REVIEW OF LITERATURE

Mukul , A.Afrin S & Hassan, M.M. (2013) factor affecting consumers perception about the organic food & their preferences and relevance's. This is basically related to perception for the buying & purchasing of the organic product good for the health.

Schifferstein & Ophuis, (2011) Research has found that organic produce is perceived by consumers to be less damaging to the environment and healthier than conventionally grown food" Retrieved on April 2011

Liu, (2007), "It is also important to connect consumers' knowledge to buying decisions and locate any other buying influences that are driving consumers spending habits".

Organic food market in the South East Asian region constitutes average consumption of 20% per annum, while the organic industry is valued at US $25 million (Ramli, 2005; Organic Monitor, 2006).

Makatouni (2002) studied that organic food is closely associated with not just health, but also with social, economic and ecological sustainability. Organic food products is amongst the fastest growing areas of the food market in Europe, Northern America, Australia and Japan with sales exceeding $114.5 billion in 1999 (Ebrahimi, 2007) with plenty of international growth potential according to agricultural & food industry experts.

Organic food is a topic of great interest in the USA (Greene, 2000), Europe (Food and agriculture Organization, 1999) and the market is fast growing in other parts of the globe (Yussefi and Willer, 2002).

Crutchfield and Roberts (2000) expressed that the last one decade has witnessed growing public concern towards issues such as health, nutrition and safety. Introduction of genetically modified organisms, spread of Escherichia coli infections, etc., have lead to the association of risk with the consumption of conventionally grown produce amongst consumers (Williams and Hammitt, 2001).

RESEARCH GAP

Based on the above literature review, the following research gaps could be identified and have been suggested as follows:

- Due to very rapidly growing sector and greater inclination of consumers towards the organic food attracts me to study on this current affair related to the organic food industry and of course ongoing trends and anticipated growth in present an coming years studies should be made over it.
- Fear over food scandals and certain technological advances such as genetic manipulation and food irradiation has heightened consumer concern on safety issues giving rise to a growing demand for quality guarantees and additional information about production methods.

- Despite concern towards safety of food consumed, consumers do not completely trust organic food products on this parameter and hence it is imperative to conduct a study to identify the present scenario.
- Country specific research undertaken by A.C. Neilsen has indicated that, 'Indians amongst the top ten buyers of food with "health supplements" globally but lack access to organic food products.'

STATEMENT OF THE PROBLEM
The market for organic food products in India has emerged because of the following two reasons.
- To tap the lucrative export markets for organic products in the developed countries.
- Organic processed food products represent higher 'added value'.
- Producers and Consumers general concern for environment and ideologies

Incidentally, in India, most of the organic produce is grown to be exported to the $25-30 billion global market. The rest is sold at predetermined retail outlets. So, if the trend for organic products is growing among producers then, its benefits must naturally reach the local population of a country.

OBJECTIVES OF THE STUDY
The objective of the study is on consumer perception towards organic food products in Bangalore are as follows:
1. To study the organic food market in Udaipur city.
2. To study the relationship between demographics of customer and factors of perception of consumers towards organic food products.
3. To identify the influence of factors of perception on the customer's satisfaction towards organic food products.

HYPOTHESIS OF THE STUDY
The following hypothesis is used to test the effect of perceptual factors on the consumer's satisfaction towards organic food products (OFP).
1. There is no significant influence of factors on the overall satisfaction of customers towards organic food products
2. There is no significant difference between demography of customers & factors of perception
3. There is no significant correlation among factors of perception

SAMPLE SIZE
For the present study, questionnaires were distributed to around 300 respondents, from whom 222 correctly completed questionnaires have been obtained, yielding a response rate of 74 percent.

ANALYSIS

TABLE 1: DISTRIBUTION OF THE SAMPLE ACCORDING TO GENDER, AGE, EDUCATIONAL QUALIFICATION, AVERAGE SPENDING PER MONTH AND FREQUENCY OF CONSUMPTION

Gender	Frequency	%
Male	145	65
Female	101	45
Age	Frequency	%
Below 30	132	59
31-50	90	41
50 Above	24	11
Educational Qualification	Frequency	%
Undergraduate	50	23
Graduate	80	36
Post- Graduate	62	28
Spending	Frequency	%
0-500	95	43
500-1000	93	42
1000 and Above	58	26
Frequency of Consumption	Frequency	%
Once a week	153	69
Once a month	69	31
Once sixth month	24	11

The Table 1 describes male constitution as 65% and females as 45%, the distribution of sample with reference to age wherein maximum respondents were below 30, according to education, maximum respondents are graduates and 28% of the respondents are post graduates. Fourthly, average spending is more than 1000 per month. Lastly, Maximum numbers of respondents consume organic food products on a weekly basis followed by a minimum number of respondents consuming organic food products once a month. The least amount of consumption falls in the category of once a sixth month consumption pattern.

GENERAL FINDINGS
Following are the findings related to this study on consumer perception towards organic food products in Udaipur.
- Consumers of organic food products evaluate product quality with the price they pay.
- Demographic variables namely gender has a positive impact on consumer perception towards organic food products while difference in educational qualifications do not have a significant impact.
- There is significant impact of psychographic factors on overall satisfaction of consumers towards organic food products.
- Consumers consider organic food products as safe for consumption.
- The respondents have also felt that organic food products are healthy to consume.
- Consumers generally prefer to consume grain based organic food products followed closely by organic grains and organic fruits.

IMPLICATIONS OF THE STUDY
It is important to study factors that have an influence on consumer perception towards organic food products. This study helps consumers and producers/marketers of organic food products to understand the importance of various factors on overall satisfaction towards organic food products.

An understanding of consumer perception leads to the creation of better marketing strategies. Here the marketers can focus on appropriate pricing and promotional methods particularly to increase the visibility of organic products to make a positive impact on their perception so as to increase potential sales in the domestic market. Consumers are both quality conscious and price sensitive. Marketers and producers should collectively work towards bringing quality produce in the market to gain market acceptance. At the same time, both marketers and producers should work in consensus with the pricing factor which is perceived to be one of the most important factors influencing consumer perception as well as their overall satisfaction towards organic food products. This will help marketers to formulate a strong communication plan in order to influence consumer perception towards organic food products.

FOUR MAIN FACTORS MAY HAVE CONTRIBUTED TO THE GROWTH OF THE ORGANIC MARKETS IN INDIA

- An increasing level of consumer knowledge about organic, in parallel with increasing dissatisfaction with conventional food and environmental concerns;
- Higher levels of consumer trust in the organic food products and in the certification labels of the products;
- Increasing demand of organic products, especially due to health consciousness.
- The involvement of big food retailers in Organic is another factor that can explain an increasing proportion of organic foods in the total amount of food consumption in India.

CONCLUSIONS

The results of the study show that there is a significant relationship between various psychographic factors on the overall satisfaction of consumers towards organic food products. This implies that both producers and marketers need to concentrate on specific factors so as to improve the market potential for organic food products and thereby contributing to the general well being of the society and the larger good to environment.

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INDIAN RURAL MARKET: AN OPPORTUNITY FOR PRIVATE LIFE INSURANCE COMPANIES

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ABSTRACT

Human life is open to various types of risks, just like road accidents, snake bites, thunder and light, earthquake, floods and serious illness etc. These risks lead to incurring losses which may be beyond the capacity of an individual to bear. Now a day's lots of financial alternatives are available to diffuse the risks, but life insurance is the best alternative. People are also interested to buy life insurance to bear the life risks. In 2000 as per R N Malhotra Committee report, Insurance Regulatory and Development Authority started issuing licenses to private life insurers. Now Indian market is available for Private Life Insurers to expand their business. In India near about 69% population means 84 crore peoples are living in rural areas. Earning, living standard, literacy level, and use of technology all these factors are in growing phase in rural areas. These peoples are also aware about life risks. But most of rural market is untapped for Life Insurance industry. So this is a big opportunity for private life insurance companies to tap this market and expands their business in rural market. This paper presents a review of rural market, life insurance and private life insurance industry. Also shows rural market benefits for private life insurers.

KEYWORDS
Life Insurance, Private Life Insurance, Rural Market, Rural Market Opportunities.

INTRODUCTION

Life insurance is a legal contract between an insurance policy holder and an insurer, where the insurer promises to pay a designated beneficiary a sum of money (the "benefits") upon the death of the insured person. Depending on the contract, other events such as terminal illness may also trigger payment. The advantage for the policy owner is "peace of mind". The death of the insured person will not result in financial hardship for loved ones.

In 1956 all private life insurance companies were taken over by LIC and there was monopoly of LIC in life insurance industry. In 2000 Indian government allowed private players and FDI in life insurance industry. Government also appointed insurance regulatory and development authority (IRDA) for issuing licenses to private life insurers. Private life insurers are free to expand their business in Indian life insurance market. But when we think about Indian market; it is divided into two groups i.e. rural and urban. Indian rural market consists of huge population. So this becomes a huge market for life insurers.

Any market having low density of population and without significant infrastructure facilities is a rural market. A rural market is a geographic area that is located outside cities and towns or whatever is not urban is considered rural. In rural market majority of people are engaged in agriculture and agriculture related activities. Agriculture is main occupation of rural market. As a business point of view large numbers of consumers are available in rural market. According to 2011 census, the rural Indian population constitutes near about 69% of the total population of country. Income and literacy level of rural area is in growing phase and also media reach in rural areas. Rural people are also aware towards saving and life risk. They are interested to save for life risk.

The Indian rural market has huge demand base and offers great opportunities to marketers. Almost half of the national income is generated in rural market. The rural market is zooming ahead at around 25% annually. Venegopal Dhoot, Chairman Videocon Appliances said, "The rural market is growing faster than urban India now". MART, the specialist rural marketing and rural development consultancy has found that 53% of sales lie in the rural market. This shows that there is great scope for selling life insurance of private companies in rural areas. As private life insurance companies go more and more rural in search of business there will be business opportunities in rural market.

REVIEW OF LITERATURE

Mamta Rani (2014) in her research paper, 'rural market' based on secondary data, says that instead of some challenges or problems there is great market potential available in rural market. This market potential becomes a opportunity for marketers who will understand the dynamics of rural market. **Anil Kalotra (2013)** in his research article rural marketing potential in India an analytical study, based on primary data analyzed that purchasing power of rural areas are increased and that is dominating by age group of 21-50 years. **Swadesh Dash and Tushar Pany (2013)** in their research article, Insurance industry in India-prospects and challenges analyzed life insurance potential. They consider insurable population, savings and consumption expenditure to find out this potential. They found that only 30% of rural Indian population is insured and remaining huge population is uninsured. If private life insurers innovate new products to fulfill the insurance need of rural market they will easily tap this market. **Vikas Sharma and Dr. Sudhinder Chawhan (2013)** in their research paper, a comparative study of public and private life insurance based on secondary data stated that life insurance become a mainstay of any market economy. There is monopoly of LIC in insurance sector but private players also trying to increase their market share. Policy lapsation ratio in private companies is higher as compare to LIC. Death claim settlement service in LIC is better than private insurers.

IMPORTANCE OF THE STUDY
01. This study will help to understand rural market and rural market requirements.
02. The study will help to know life insurance and private life insurance.
03. This study will also helpful to life insurers to know the need and requirements of rural markets.
04. This study will helpful to private life insurers for taking corrective actions in rural markets.

STATEMENT OF THE PROBLEM
Is there any need to study the rural market, rural market situations and rural market requirement in case of life insurance to increase the business of private life insurers?

OBJECTIVES
01. To understand the rural market.
02. To understand the life insurance and life insurance industry.

03. To study the private life insurance industry.
04. To study the challenges in rural market.
05. To analyze the opportunities for private life insurers in rural market.

RESEARCH METHODOLOGY

This study is based on secondary data. The main sources of secondary data are various journals articles, books, online data, IRDA website, etc.

LIFE INSURANCE AND LIFE INSURANCE INDUSTRY

The term insurance can be defined in both financial and legal terms. The financial definition focuses on an arrangement that redistributes the cost of unexpected losses, that is, the collection of a small premium payment from all exposed and distributed to those suffering loss. There are two main types of insurance i) life insurance and ii) Non life insurance or General Insurance.

Features and benefits of insurance:
1. Protection from losses.
2. Safeguard against risk.
3. Reduce the impact of the risk of loss.
4. Collection and contribution of premiums in advance for fund creation.
5. Monetary benefit which becomes alternative means of income.
6. Reduction in tension and fear.
7. Avenue for investment with good returns.
8. Credit multiplication.

Life insurance is a contract between an insured (insurance policy holder) and an insurer, where the insurer promises to pay a designated beneficiary a sum of money (the "benefits") upon the death of the insured person. Human life can be lost through unexpectedly death, sickness and disabilities caused by accidents. Life insurance covers the life risk and the death of the insured person will not result in financial hardship for family dependence or loved ones. Life insurance fulfills both needs that are saving and life risk coverage.

Life-based contracts tend to fall into two major categories:
- Protection policies – designed to provide a benefit in the event of specified event, typically a lump sum payment. A common form of this design is term insurance.
- Investment policies – where the main objective is to facilitate the growth of capital by regular or single premiums. Common forms (in the US) are whole life, universal life and variable life policies.

There are different types of life insurance plans: term plan, fundamental plans, money back plans, unit linked insurance plans, guaranteed plans and pension plans.

LIFE INSURANCE INDUSTRY

There is one insurance company that is LIC in the public sector and other 23 companies in the private sector.

Life Insurer in Public Sector- 1) Life Insurance Corporation of India

Life Insurers in Private Sector
1. SBI Life Insurance
2. MetLife India Life Insurance
3. ICICI Prudential Life Insurance
4. Bajaj Allianz Life
5. Max New York Life Insurance
6. Sahara Life Insurance
7. Tata AIG Life
8. HDFC Standard Life
9. Birla Sunlife
10. Kotak Life Insurance
11. Aviva Life Insurance
12. Reliance Life Insurance Company Limited - Formerly known as AMP Sanmar LIC
13. ING Vysya Life Insurance
14. Shriram Life Insurance
15. Bharti AXA Life Insurance Co Ltd
16. Future Generali Life Insurance Co Ltd
17. IDBI Fedaral Life Insurance
18. AEGON Religare Life Insurance
19. DLF Pramerica Life Insurance
20. CANARA HSBC Oriental Bank of Commerce LIFE INSURANCE
21. India First Life insurance company limited
22. Star Union Dia-ichi Life Insurance Co. Ltd
23. Edelweiss Tokio Life Insurance Company Ltd

INDIAN MARKET SHARE OF LIFE INSURANCE AS PER IRDA ANNUAL REPORT 2012-13

Insurers	2011-12	2012-13
Regular Premium		
LIC	64.58	58.08
Private Insurers	35.42	41.92
Total	100	100
Single Premium		
LIC	80.58	83.92
Private Insurers	19.42	16.08
Total	100	100
First Year Premium		
LIC	71.85	71.36
Private Insurers	28.15	28.64
Total	100	100
Renewal Premium		
LIC	69.91	73.50
Private Insurers	30.09	26.50
Total	100	100
Total Premium		
LIC	70.68	72.70
Private Insurers	29.32	27.30
Total	100	100

On the basis of total premium income, the market share of LIC increased from 70.68% in 2011-12 to 72.70% in 2012-13 while the market share of private sector decreased from 29.32% in 2011-12 to 27.30% in 2012-13. In renewal premium, LIC continued to have higher market share as compare to private sector. During the year 2012-13 life insurers issued 441.87 lakh new policies, out of which LIC issued 367.82 lakh new policies while Private Insurers issued 74.05 lakh new policies.

RURAL MARKET
There is lack of definition of rural market. All areas which are not categorized as urban market are considered as rural market. According to the differences between rural and urban areas we can define rural market as, 'any market that exists in an area with less than 10000 populations, low density of population and without significant infrastructure facilities is a rural market.'
In Europe, a place is called town if the population is 2500 but it is not good definition in India because of large population. The term 'Village' is used in India for rural market. In India, according to census 2011, there are 640867 villages with near about 84 crore population.
Rural market satisfied following criteria that are- minimum population of 10000, at least 75% of the male main workers engaged in agricultural pursuits and a density of population of at least 400 per sq. km. According to census study from 2001 to 2011, rural population increased by 10 crore. Literacy rate also increased in rural market by 10%.

FEATURES OF INDIAN RURAL MARKET
1. Rural Community- Family and joint family concept which exercises social control. In rural market family bonds between members of family are strong. In rural families, strong, hardworking and young member of the family take care of weak, old and children.
2. Community feeling and cooperation- there is close relations, cooperation and understanding in rural villages.
3. Large and scattered market- rural market consists 84 crore population from 640867 villages having 400 per sq. km population density.
4. Major income from agriculture- 60% of the rural income is from agriculture and agricultural business.
5. Low standard of living- low literacy, low per capita income, social backwardness, low saving are causes of low standard of living in rural market.
6. Infrastructure facilities- roads, warehouses, communication system and financial facilities these infrastructure facilities are inadequate in rural area.
7. Unequal status- all people living in a rural village are not equal, caste and status divisions are observed to a large extent.

CHALLENGES IN RURAL MARKET
1. Low population density- rural market is spread over broad area. Population density is near about 400 per sq. km.
2. Low literacy- literacy ration is low as compare to urban market. There is also tremendous difference between male and female literacy ratio in rural market.
3. Transportation and communication problem- many rural villages are not connected by road and rail transport. Lack of telephone, fax and internet facilities in rural villages.
4. Seasonal Demand- rural income is mostly depends upon agriculture. Agriculture to a large extent depends upon monsoon. So as per the monsoon situation rural income fluctuates and indirectly buying capacity of rural market gets fluctuate.
5. Buying Decisions- in rural areas buying decisions are slow. Rural consumers like to give a trial and only after personal experience and satisfaction, do they buy the product or services.

RURAL MARKET OPPORTUNITIES
Ravinder Zutshi, director marketing of Samsung said, 'the urban market is replacement and up gradation market today. Also Venugopal Dhoot, chairman of Videocon said, 'the rural market is growing faster than urban India now'. This means that there is tremendous potential in rural market. There is near about 25% annual growth in rural market. Business organizations have opportunities to expand their business in rural market. Following are some changes occur in rural market because of that there are market opportunities for business organizations.
1. Socio-economic changes- in rural market tremendous changes occur in lifestyle, habits and taste, economic status. These changes create a new demand or requirement. So it creates a business opportunity.
2. Literacy level- there was 25% literacy before independence. Now literacy rate of rural market is near about 70%, according to census 2011. Rural male literacy rate increased upto 78% and rural female literacy rate upto 59%, as per census 2011. This increase in literacy will create general awareness about life and life risk. So this factor will also create an opportunities for business organizations.
3. Infrastructure facilities- rural roads, electricity connection and media broadcasting all are in growing phase. These factors will help to reach quickly and easily to rural market.
4. Increase in income and saving- there is continuous growth in income of rural population and their saving habit. Increasing income will motivate them towards purchasing.

5. Increase in expectations and consumption expenditure- because of media explosion, globalization and increase in earning rural people also expect more and new. Rural people are also ready to pay for products and services those fulfill their needs and requirement.
6. Untapped potential market- there is severe competition and saturation in urban market. Rural market is quite untapped market for most of products and services. This is also a huge opportunity for business.
7. Changing attitude of farmers- because of globalization, education farmers treat agriculture as a business. They turn towards cash crops, fruit crops, food processing units and many agri related business. This changing attitude also helps to create business opportunities in rural market.
8. Huge rural population- 69% of total Indian population lives in rural India.

CHALLENGES FOR PRIVATE INSURERS TO TAP RURAL MARKET

Availability- huge Indian population is spread over 3.2 million sq km through 640867 villages: 84 crore Indians may live in rural areas, finding and reaching them is not easy.

Affordability- affordability of the service is second challenge in rural market. With low disposable incomes, products need to be affordable to the rural consumer, most of who are on daily wages or having very little income.

Acceptability- there is a need to offer products that suit the rural market. The insurance companies that have tailor made products for the rural market have performed well. So company should offer reasonable priced policies in the rural market.

Awareness- creating awareness in rural market towards life insurance is essential. For this purpose proper utilization of media is necessary. With large parts of rural India inaccessible to conventional advertising media. So this is quite difficult for business organization to create awareness.

Availability of Insurance Agents in rural market- insurance agent is middleman for insurance business. Agents are important to transmit essential information to the people and try to convert them as an insured person. But there is lack of insurance agents to satisfy rural consumers.

WHY RURAL MARKET FOR PRIVATE LIFE INSURANCE

In spite of above mentioned challenges there are few factors that make rural market available for life insurance-

1. Unsaturated huge market- near about 84 crore of population, 5 persons per household is available in rural market. For fulfilling the life insurance need of this huge population there is monopoly of only one life insurance Company that is LIC. Because of that most of rural population is unaware about life insurance. So this become a huge opportunity for private insurers to aware them and tap this rural market.
2. Increasing rural income- because of new technology, irrigation facilities, crop variety etc. agricultural income increased. So rural people try to invest this increasing income somewhere. This situation also creates new market for life insurance.
3. Increasing literacy level- overall rural literacy rate increased upto 70%. People become aware about their life and life risk because of education. These conscious and educated people also become a new market for life insurance.
4. Young population- now a day, most of Indian population is young. So along with urban area, youth increases in rural market. This population has new need and requirements. So this population will also become a market for life insurance.

FINDINGS

The study finds that-

1. According to IRDA annual report market share growth of private sector is continuously in decline phase.
2. Huge rural market is available and unsaturated for private life insurance companies.
3. Because of increasing earning, infrastructural development, media influence and education in rural areas, new market is generated. .
4. In life insurance sector for rural market, there is monopoly of LIC.
5. There is huge buying potential in rural market, only need to reach and satisfy them.
6. New innovation in products and services according to the needs and requirements of rural market will able to convert this new market.

SUGGESTIONS

There are few suggestions for private life insurers-

1. Still there is monopoly of only one player i.e. LIC in Indian market. So Private Players should focus properly on rural market to increase their total market share.
2. Because of globalization and privatization whole Indian market is available for business. So private life insurers should making use of this opportunity.
3. In case of rural market, 84 crore population is living in rural villages that twice than whole population of USA. So huge market is available for selling the products.
4. In rural market, literacy, income, infrastructure and media all are in growing phase. So proper utilization of all these factors to spread the life insurance business is essential.
5. Because of low rate of road accident and unawareness towards life insurance, it is difficult to sell life insurance in rural market. But by offering them suitable policies like low premium policies, they will purchase that.

CONCLUSIONS

Looking at the feature, challenges and the opportunities of rural markets it can be said that there are opportunities to private life insurance companies to increase their business. After understanding this huge market, by making some changes in normal products and creating awareness among the rural people towards life insurance huge market will be available for private life insurance companies.

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TRANSMISSION OF INFORMATION BETWEEN INDIAN FUTURES AND CASH MARKETS

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ABSTRACT

The proportion of transmission of information from futures market to cash market in India is analysed with the help of VAR variance Decomposition model by using the daily data from S&P CNX Nifty and its underlying asset Nifty-50 for the period of 12th June 2000 – 30th June 2011. Open Interest, Trade Volume, Number of Contract, Volatility series of futures return, spot return and futures return are the variables considered for the analysis. Basic behavior of the variables are estimated through descriptive statistics, line graphs and unit root tests and the final estimation is made with VAR- Variance decomposition model. This study fills the literature gap of the proportion of transmission of information from one variable to another variable in futures and cash market in India. Further it gives and prediction efficiency of the different component in Indian Futures market. Spot from spot behavior of Cash market and Spot to futures market behavior of Futures market are proved by the study. The minor role of trade volume and open interest to predict the movement of the futures market is also revealed here.

KEYWORDS

Information transmission, Shocks and responses, Time Lags, VAR- Variance Decomposition.

INTRODUCTION

Primarily derivatives markets are identified for price discovery, arbitrage and risk protection or risk reduction. Futures market is the market which basically depends on the spot market. Theoretically, both the spot and futures market must move together and adjust or respond to the information and events in a similar manner. According to the empirical result of the studies, Indian spot market and future market are integrated and hence there is a possibility of hedging between Indian spot and futures markets. The futures price is determined by many factors such as the market price of the underlying asset, the money market rate and expected dividend on the underlying asset during the life of the future Supply or demand, movement of futures market and the other aspects of futures market like number of contract and trade volume of futures contract. The movement of the futures market can be predicted with the help of other factors from the futures market and spot market. Vipul (2008) made an attempt to investigate the role of some variable from the futures market that can predict others. Each variable from the futures market and variable from the spot market also can predict the movement of other variables in the futures market. The relationship between variables like open interest, trading volume, turnover, volatility and futures return can be taken as the way in which the movement of one variable is related to another variable, then this relationship can be used to predict the movement of another variables. If some of the variables are able to predict the movement of another variable, it can be said that it is the determinant of that variable. The positive and contemporaneous relationship between price volatility and trading volume are found by Clerk (1973), Lawrence and Harris (1986).

Very strong relationship between futures index trading and the liquidity of its underlying market shows that the trading of stock index futures enhances the liquidity of the underlying stocks (Tina. M. Galloway and Miller 1997). The trading between futures and its spot market also enhances the liquidity of its trading. The role of arbitrage process in the index futures helps to increase the trading volume and its liquidity. Danthin (2003) and Edward (2006) argued that index related trading strategies like index arbitrage will increase liquidity. Trading between spot and futures market enhances the trading volume and liquidity of the index trading. Variables from the futures market can also be used as the element which may predict the movement of futures return. Open interests, turn over and number of contract are the representatives of trading volume of the futures market in quality and quantity manner.

The relationship between different variables in the futures market reveals the ability of each variable to reflect the information flow to the market and its role in determining the futures markets movement. Information flow, measured by trading volume has a positive relationship with volatility while market depth measured by open interest has an inverse relationship with volatility (Bessembinder and Seguin 1992, P. Sakthivel and B.Kamaiah 2009). The importance of trading volume in the form of number of contract or turn over can be traced from many studies in the literature. The level of flow of information to the market can be traced and it may be used as the proxy for the liquidity of the market. Volatility and trading volumes are inter related which will provide lot of information on the market movement. Trading volume is proxy for the flow of information in to the market, trading volume and return volatility are driven by the same factors (Lastrapes 1990, P. Sakthivel 2009). Literature proves the point those variables both from spot and futures markets play the role of passing information and their relationship helps to provide one with another. Therefore in order to identify the role of each variable on the futures return and find the level of influence of each one to the futures return, the VAR system is used. The literature found that open interest, trading volume and volatility are playing their own role in the futures market (Cambell et al (1993) Gwilym et al (1999), Spyrou (2005), Julio 2008, Puja Padhi (2009), and Pratap Chandra Pati (2010).

A lead-lag effect describes the situation where one variable that is leading variable correlated with the values of another variable that is lagging at later time. The analysis of lead lag relationship between these prices reveals the chances of making profit or loss. Volatility, trading volume and the seasonality are the factors which may affect the leading variable effectively. The proportion of shocks reflected by the same variable and transmitted to other variables is shown through the variance decomposition function. Impulse responses and variance decomposition analysis explain economic significance in addition to statistical significance (Brajesh Kumar and P.Singh 2009). The interrelationship between futures return, spot return, open interest, turn over, number of contract and futures market volatility are discussed by this study with the help of variance decomposition methodology. This study provides information on the proportion of transmission of information from futures market to cash market and the same from one indicator to another indicator in the futures market itself in India.

REVIEW OF LITERATURE

The role of different aspects from futures market and its impact on the movement of the market are analysed by the researchers in different periods and in various markets. Hoa Nguyen and Robert Faff (2002) made a study on the determinants of derivatives by Australian companies and found a positive relationship between firm's size and the likely hood of derivatives usage. In the same year Stephen P.Ferris,Hun Y.Park and Kwangwoo Park made an investigation on volatility, open interest ,volume and arbitrage by using evidence from the S&P 500 futures market. The informational content of open interest was empirically investigated by the researchers by applying different econometrics models with data from various markets. Yang, David a. Bessler and Hung-Gay Fung (2004)

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investigated the informational role of open interest in futures markets by using Johansen Cointegration and Error Correction Model then revealed the common long-run information of open interest with the futures price. Jian Christos Floros (2007) found open interest as a proxy in the Greece Stock index Futures Market by applying Johansen model.

Informational content of trading volume and open interest was empirically estimated in Indian market by Sandeep Srivastave (2003) and Kedar Nath Mukherjee and R.K. Mishra (2004) then confirmed the prediction power of open interest in predicting the spot price index. Volatility content of futures market and its impact on other content like open interest, trade volume and price movements were studied by Hongyi Chen, Laurence Fung and Jim Wong (2005) and found that open interest and cash market turnover are positively correlated. Stephane. M. Yen and Ming. Hsiang Chen (2010) studied the relationship between open interest, volume and volatility in Taiwan futures markets and IGARCH models results explained that the significance of in sample relationship among the futures daily volatilities, the lagged total volume. Suchismita Bose (2007) attempted to understand the volatility characteristics and transmission effects in the Indian stock index and index futures markets by using daily data. Vipul (2008) results revealed that any increase or decrease in mispricing did not lead to the significant change in volatility, volume or open interest for any of the futures or the underlying shares. A positive and highly statistically significant result of GJRGARCH model was reveled from the Indian market on futures trading and volatility by P.Sakthivel and B.Kamaiah (2009). J. Lucia and Angel Pardo (2010) found that the ratio of volume to absolute change in open interest. Pratap Chandra Pati and Prabina Rajib (2010) revealed the evidence of time varying volatility which exhibits clustering high resistance and predictability in the Indian futures markets.

Anadrew W. Alford and James R. Boatsman (1995) predicted long term stock return volatility for accounting and valuation of equity derivatives. No significant effect on volatility following the introduction of futures trading was found by Spyros.I.Spyrou (2005) in Athens stock Exchange. Epaminontas Katsikas (2007) made a study on volatility and autocorrelation in European futures markets. Evidence suggested that index futures return in Europe markets behave similarly. Paul Dawson and Sotiris. K. Staikouras (2009) used GARCH (1, 1) estimation to find normal market conditions volatility derivatives trading under lowering the underlying assets. The GARCH model result of Jinliang Li (2010) from U.S market indicated that the quarterly innovation to turn over does not possess explanatory power to the daily volatility of the futures. Claudio Albanese and Adel Osseiran (2007) found that volatility derivatives were particularly well suited to be treated with moment methods. Lech.A.Grzelak, Cornelis.W.Dosterlee and Sacha Van Weeren (2009) made extension of Stochastic Volatility Equity Models with Hull- White Interest Rate Process.

About Indian Market, M. Thenmozhi (2002) made a study on futures trading, information and spot price volatility of futures contracts by using GARCH model. Ash Narayan Sah and G. Omkarnath (2005) studied the significant changes in the volatility after the introduction of derivatives trading by applying ARCH model. GJR- GARCH and EGARCH model were applied to find the asymmetric response of volatility to news in Indian stock market by Puja Padhi (2007). Vasilieios Kallinterakis and Shikha Khurana (2008) identified Volatility as the factor which maintains significant asymmetries in Indian Market. .S. Bhaumik, M.Karanasos and A. Kartsaklas (2008) had conducted a study on derivative trading and the volume volatility link in the Indian stock market with AR-FI –GARCH Model. Mayank Joshipura (2010) showed the effect of introduction of derivatives trading on average daily excess return of underlying stocks and portfolios in India.

STATEMENT OF THE PROBLEM

It is found that almost all studies have considered only one or two variables to assess the futures market for a particular period. Conclusions were drawn based on that variable alone without including other important variables from futures market. It is not found that the study which aims to make a depth analysis on the transmission of information from one variable to another variable by using VAR Variance decomposition model.

OBJECTIVES OF THE STUDY

To estimate the proportion of transmission of information from futures market to cash market in India.

HYPOTHESIS OF THE STUDY

H_o1 : There is no enough level of transmission of information from spot market to futures market.

H_o2: Determinants of Futures market such as Open interest, Turn Over, Number of Contract and Volatility of futures market are not having enough level of information transmission from one to another.

IMPORTANCE OF THE STUDY

On the basis of review of literature, it is found that lot of studies have been done on the futures market in India. Each study clearly analyzed and examined different aspects of futures market in depth. While comparing the studies from abroad and India lot of differences are seen in the movement of market, link between futures market and its underlying market and in the basic structure of variables used. This study makes an attempt to fill the research gap by considering more number of variables such as futures return, spot return, open interest, trading volume, number of contracts. This research work provides basic knowledge on the movement of Indian futures market and its underlying market with the transmission of information from one component to another.

DATA OF THE STUDY

In order to access the relationship between spot and futures market in India, daily closing indices of Nifty spot and Nifty futures from 12th June 2000 to 30th June 2011 are included. Variables from futures markets are futures market return (FUT) is the representative of futures market, number of contract (CONT) , turnover (TURN), both are considered as a proxy for trading volume, open interest (OI) which is the indicator of market depth and hedging efficiency of the market, volatility of the futures return (VOL) and spot market return (SPOT). Variables are taken from S&P CNX Nifty daily closing values and volatility series of futures return which is estimated through GARCH (1,1) methodology. Spot return is obtained from the closing index of the underlying value of Nifty -50.

ECONOMETRICS MODELS USED IN THE STUDY

VAR MODEL

$$Y_t = C_0 + \sum_{k=1}^{p} A_k Y_{t-k} + \varepsilon_t \quad , \, E\,(\varepsilon_t, \varepsilon_t^1) = \Omega$$

Where Y_{t-k} is a $nx1$ column vector of n stationary variables at time $t-k$, $C0$ is a $nx1$ column vector of constants, A_k is an nxn matrix of coefficients, p is the number of lags, and ε_t is a $nx1$ column vector of white noise innovation terms with symmetric and positive definite variance- covariance matrix Ω. VAR models were popularized in econometrics by Sims (1980) as a natural generalization of univariate autoregressive models. VAR is a systems regression model that can be considered a kind of hybrid between the univariate time series models and the simultaneous equation models. The simplest case that can be entertained is a bivariate VAR where there are only two variables y_{1t} and y_{2t}, each of whose current values depend on different combinations of the previous k values of both variables and error terms. This could be written as

$$y_{1t} = \beta_{10} + \beta_{11} y_{1y-1} + \alpha_{11} y_{2t-1} + u_{1t} \tag{3}$$

$$y_{2t} = \beta_{20} + \beta_{21} y_{2t-1} + \alpha_{21} y_{1t-1} + u_{2t} \tag{4}$$

There are g=2 variables in the system. Extending the model to the case where there are k lags of each variable in each equation is also easily accomplished.

VARIANCE DECOMPOSITION

Variance decompositions model a slightly different method for examining VAR system dynamics. They give the proportion of the movements in the dependent variables that are due to their own shocks, versus shocks to the other variables. A shock to their i^{th} variable will directly affect that variable of course, but it will also be transmitted to all the other variables in the system through the dynamic structure of the VAR. Variance decomposition determine how much of the s-step head fore cast error variance of a given variable is explained by innovations to each explanatory variables for s=1, 2, 3,.... in practice, it is usually observed that own series shocks explain most of the errors variances of the series in a VAR. Runkle (1987) argues that confidence bands around the impulses response and variance decomposition should always be constructed. Since unrestricted VARs are overparameterized, they are not particularly useful for short term forecast. However, understanding the properties of the forecast errors is exceeding helpful uncovering interrelationships among the variables in the system. The coefficients of A_0 and A_1 and wanted to forecast the various values of x_{t-i} conditional on the observed value of x_t taking the conditional expectations of $xt+1$, we can obtain

$$E_t x_{t+1} = A_0 + A_1 x_t$$

It is noted that one step ahead forecast error is $x_{t+1} - E_t x_{t+1} = e_{t+1}$. If we take conditional expectations, the two steps ahead forecast error is $e_{t+2} + A_1 e_{t+1}$ more generally, it is easily verified that the n-step-ahead forecast is

$$E_t x_{t+n} = (I + A_1 + A_1^2 + ... + A_1^{n-1}) A_0 + A_1^n x_t$$

and that the associated forecast error is

$$e_{t+n} A_1 e_{t+n-1} + A_1^2 e_{t+n-2} + ... + A_1^{n-1} e_{t+1} \qquad (5)$$

The VMA and the VAR models contain exactly the same information but it is convenient to describe the properties of the forecast errors in term of the $\{\varepsilon_t\}$ sequences. If the conditional forecast $xt+1$, the one- step- head the forecast error is $\phi_0 e_{t+1}$. In general,

$$x_{t+n} = \mu + \sum_{i=0}^{\infty} \phi_i \varepsilon_{t+n-i}$$

So that the n- period forecast error $x_{t+n} - E_t x_{t+n}$ is

$$x_{t+n} - E_t x_{t+n} = \sum_{i=0}^{n-1} \phi_i \varepsilon_{t+n-i}$$

Denoting the n-step- ahead forecast error variance of y_{t+n} as $\sigma_y(n)^2$.

$$\sigma_y(n)^2 = \sigma_y^2 [\phi_{11}(0)^2 + \phi_{11}(1)^2 + ... + \phi_{11}(n-1)^2] + \sigma_z^2 [\phi_{12}(0)^2 + \phi_{12}(1)^2 + ... + \phi_{12}(n-1)^2]$$

Because all values of $\phi_{jk}(i)^2$ are necessarily non negative, the variance of the forecast error increase as the forecast horizon n increases. Note that it is possible to decompose the n-step –ahead forecast error variance into the proportions due to each shock. The proportions of $\sigma_y(n)^2$ due to shocks in the $\{\varepsilon_{yt}\}$ and $\{\varepsilon_{zt}\}$ sequences are

$$\frac{\sigma_y^2 [\phi_{11}(0)^2 + \phi_{11}(1)^2 + ... + \phi_{11}(n-1)^2]}{\sigma_y(n)^2} \qquad \text{and} \qquad \frac{\sigma_z^2 [\phi_{12}(0)^2 + \phi_{12}(1)^2 + ... + \phi_{12}(n-1)^2]}{\sigma_y(n)^2}$$

The forecast error variance decomposition gives the proportion of the movements in a sequence due to its own shocks versus shocks to the other variables. Variance decompositions can be useful tools to examine the relationship among economic variables. If the correlations among the various innovations are small, the identification problem is not likely to be especially important.

RESULTS ANALYSIS AND DISCUSSION

Table 1 shows the summary statistics of variables included in the study periods. Summary statistics provides the basic behavior of variables individually. Nifty SPOTR, FUTR, OI, CONT, TURN and VOL are the variables included in the study. Time series data expected to have variation due to many factors which have an effect on the market.

SUMMARY STATISTICS

TABLE 1: SUMMARY STATISTICS OF VARIABLES

	SPOTR	FUTR	OI	CONT	TURN	VOLA
Mean	0.000497	0.000495	15.79850	11.13658	12.06697	0.000313
Median	0.001346	0.001001	16.65086	12.07817	13.22067	0.000186
Std. Dev.	0.016610	0.017517	1.773199	2.477791	2.503864	0.000414
Skewness	-0.30216	-0.47405	-1.29299	-1.14225	-1.1618	5.424452
Kurtosis	11.08915	12.00970	3.956379	3.311294	3.179561	46.58532
Jarque-Bera	7569.688	9441.874	874.5356	611.5433	624.8307	232082.6
Probability	0.0000	0.0000	0.00000	0.00000	0.00000	0.00000
Observations	2761	2761	2761	2761	2761	2761

Summary statistics reveal that the mean, median and standard deviation of futures returns are positive, indicating that the investors are getting returns and it is negatively skewed (-0.474) and peakedness of the distribution is showed through kurtosis (12.009), which is far from the basic value of 3. Jarque Bera test value (9441.874) shows that the distribution is asymmetric and which is supported by the probability value presented. Other variables included in the study have non normality distribution. The summary statistics of this study shows the asymmetric return in futures and spot market which is supported by the findings of Fama (1965), Stevenson and Bear (1970), Kendull and Hill (1995) Chen (1996) Reddy (1997) Kamath et al. (1998) and Kapil Gupta et al. (2009). Finding of Karpoff (1987) also support the theoretical back ground of this distribution. The risk averse nature of traders in a speculative asset may be a prominent reason for the asymmetric returns (Moolman, 2004). Diagler and Wiley (1999), finds that high degree of volatility in speculative market, both optimistic and pessimistic views of traders to information causes expected variation in prices.

STATIONARITY OF VARIABLES

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Variables included in the study have different characteristics. Return from spot and futures market is the first difference price series of S&P CNX Nifty and all other variables are at their level form. The volatility series of futures return is generated through the application of GARCH (1, 1) model. Prior to further using econometrics models there is a need to examine the stationarity of each individual time series as most data are non- stationary. It is important to make sure that the variables are stationary because the assumptions for asymptotic analysis in granger stationarity of variables test will be valid.

TABLE 2: RESULTS OF STATIONARITY TESTS APPLIED ON VARIABLES INCLUDED IN THE STUDY

Variables	Level	
	ADF	PP
Spotr	-12.45741**	-48.67637**
Futr	-12.52330**	-51.13509**
OI	-4.422677**	-6.836442**
Cont	-3.000871**	-6.426959**
Turn	-2.934808**	-5.695540**
Vola	-7.885084**	-11.23244**

*** indicates the significance at 1% level, ** denotes 5% level of significance. AIC criterion is used to select lag length.

From this table, it is clear that variable used for that analysis are stationary in its level form and both unit root test such as ADF and PP test result confirms the result.

VAR LAG ORDER SELECTION CRITERIA

TABLE 3: VAR LAG ORDER SELECTION CRITERIA FOR MODELS USED IN THE STUDY

Lag	LogL	LR	FPE	AIC	SC	HQ
0	28913.94	NA	3.12e-17	-20.97818	-20.96529	-20.97353
1	45414.09	32916.48	2.02e-22	-32.92604	-32.83580	-32.89344
2	45756.67	681.9375	1.62e-22	-33.14853	-32.98094*	-33.08798
3	45873.25	231.5524	1.53e-22	-33.20700	-32.96206	-33.11852
4	45964.37	180.5954	1.47e-22	-33.24701	-32.92472	-33.13058*
5	46029.91	129.6042*	1.44e-22*	-33.26844*	-32.86880	-33.12407

* indicates lag order selected by the criterion at 5% level of Significance.

Table 3 provides result of VAR order selection criteria for models to be used to find the proportion of transmission of information between Indian futures and cash markets. The optimum lag length 5 is selected at 5% level of significance on the basis of Likelihood Ratio, Final Prediction Error and Akaika Information Criterion for the study. This lag length can make the variables in to homogeneous characteristics and to avoid the autocorrelation problem.

PROPORTION AND TRANSMISSION OF SHOCKS BETWEEN INDIAN FUTURES AND CASH MARKETS

The proportion of change in one variable due to the shock of that variable itself and the transmission of proportionate change to other variable can be analyzed with variance decomposition model. It provides more clarity on the proportionate change in each variable due to shocks in the same variable. Variance decomposition or forecast error variance decomposition indicates the amount of information each variable contributes to the other variables in vector auto regression models. It determines how much of the forecast error variance of each of the variable can be explained by exogenous shocks to the other variables.

Table 4 gives the result of transmission of shocks in proportion measured through variance decomposition. On the first day the shock of the spot return is not transmitted to other variables instead the spot return itself reflects the same. While increasing the time lag, it is seen that the proportion of transmission of change in spot return variable to other variables in different time lags. On the 10th day the actual shock in the spot return and its change in spot return itself is around 99%, futures return and other variables from futures market do not have the shock from spot market. This situation is formed as spot on spot. It reveals that underlying spot market do not provide information to the futures market. Shocks are contained spot itself. There is a spot on spot situation prevailing.

TABLE 4: RESULTS OF VARIANCE DECOMPOSITION OF THE VARIABLE SPOTR

Time Lag	SPOTR	FUTR	OI	CONT	TURN	VOLA
1	100.0000	0.000000	0.000000	0.000000	0.000000	0.000000
2	99.92051	0.016000	0.005009	0.001004	0.009389	0.048092
3	99.76280	0.031258	0.054560	0.003301	0.067703	0.080375
4	99.50293	0.044985	0.062811	0.083102	0.183537	0.122637
5	99.27779	0.143454	0.169381	0.085313	0.200258	0.123802
6	99.25263	0.151275	0.172138	0.087475	0.203665	0.132817
7	99.21131	0.179685	0.173493	0.089895	0.203795	0.141818
8	99.20287	0.182497	0.173487	0.090699	0.203952	0.146493
9	99.19067	0.182475	0.174040	0.096191	0.204683	0.151941
10	99.18449	0.183330	0.175256	0.096524	0.205410	0.154993

As against the previous table, table.5 shows that the shock of futures market is transmitted to spot market immediately. On the first day itself around 97% shocks is transmitted to spot and only 2.84% is in futures market. When time lag increases the proportion of transmission of the shocks to spot market is reducing and very nominal level is transmitted to other variables. On the 10th day of time lag, around 4% shock of futures market is reflected by future itself and around 96% is transmitted to spot market return. All other variables get very minimal shocks from futures market. In other words, shocks of futures markets are transmitted to spot and not in the futures market itself. This is termed as futures on spot.

TABLE 5: RESULTS OF VARIANCE DECOMPOSITION OF THE VARIABLE FUTR

Time Lag	SPOTR	FUTR	OI	CONT	TURN	VOLA
1	97.15292	2.847076	0.000000	0.000000	0.000000	0.000000
2	96.54143	3.395382	0.013865	0.000227	0.000682	0.048410
3	96.33824	3.460367	0.044283	0.000242	0.080547	0.076324
4	96.08854	3.453724	0.049166	0.059177	0.194335	0.155058
5	95.83446	3.584582	0.126201	0.076525	0.219915	0.158314
6	95.79613	3.588786	0.134797	0.084351	0.222487	0.173445
7	95.72601	3.648415	0.135356	0.085753	0.222694	0.181772
8	95.72002	3.648681	0.135343	0.086313	0.222854	0.186787
9	95.71082	3.648361	0.135540	0.090834	0.223509	0.190933
10	95.70644	3.648967	0.136353	0.090834	0.224210	0.193198

Open interest representing the market depth shows that any shock in it is borne by the market depth itself, it does not pass it to any other variables including to the returns from spot and futures market. This trend is changed when time lag is increased. On the 10th day, it is found that 10% of shocks are transmitted to volume and return from futures market and some proportion to return from spot. Which means that, any event that has effect on market depth of futures market, may have effect on return in the long run, not immediately.

TABLE 6: RESULTS OF VARIANCE DECOMPOSITION OF THE OI

Time Lag	SPOTR	FUTR	OI	CONT	TURN	VOLA
1	0.087065	0.464530	99.44840	0.000000	0.000000	0.000000
2	0.061570	1.239441	98.64759	0.016334	0.003670	0.031392
3	0.079296	1.745264	97.89328	0.163646	0.007076	0.111440
4	0.205147	2.040094	96.64210	0.841023	0.025832	0.245808
5	0.336288	2.369182	95.69051	1.154656	0.077716	0.371643
6	0.680082	2.400990	94.54202	1.795161	0.107435	0.474316
7	0.849030	2.353534	93.60586	2.510732	0.121124	0.559722
8	0.931795	2.303604	92.67432	3.305188	0.125066	0.660022
9	0.991402	2.271873	91.62532	4.235290	0.125674	0.750442
10	1.032196	2.243528	90.61161	5.143561	0.127458	0.841646

TABLE 7: RESULTS OF VARIANCE DECOMPOSITION OF CONT.

TimeLag	SPOTR	FUTR	OI	CONT	TURN	VOLA
1	3.314841	0.112976	2.265682	94.30650	0.000000	0.000000
2	4.973029	0.106544	2.706104	92.00913	0.010987	0.194211
3	4.866744	0.120636	4.518158	90.11531	0.150308	0.228847
4	4.793630	0.119540	6.196900	88.40222	0.273196	0.214511
5	4.662238	0.151940	6.973511	87.64022	0.289589	0.282503
6	4.191872	0.198332	7.653228	87.37082	0.291850	0.293900
7	3.901827	0.188018	8.407043	86.86389	0.317001	0.322218
8	3.695508	0.179577	9.307782	86.13408	0.341838	0.341215
9	3.507252	0.171664	10.22138	85.38370	0.356100	0.359900
10	3.327767	0.166680	11.00083	84.75213	0.365900	0.386689

This may be termed as depth on depth situation during short period, but in the long run it may be depth on others. This result shows that market depth and speculative activities of the trading cannot be separated. Both are interrelated and change in one affects the other.

Table 7 shows the results of variance decomposition of number of contract as dependent variable for the study. It indicates that 94% change is happened in the number of contract variable itself due to the shock from the same variable. On that moment around 3%, 1%and 2% shocks transmitted to spot market, futures market and open interest respectively. If any events happens to have effect on number of contracts, would have changes in the number of contract itself and some proportion is transmitted to return from spot market and futures market. But this slowly gets changed is time lag increases. Market depth is the sole factor while have impact due to shocks from number of contract. It is observed significantly that change in number of contract had increased effect on return from spot market on the second day and after that the effect got reduced over the time. The close relationship of number of contract and open interest during this period can be understood from this study and it their interconnection is revealed.

The table.8 shows that any shock in turnover is reflected in number of contract and as days pass by market depth is affected. Very negligible effect is seen in the return from spot market. It means that the movement of turnover is predicted by number of contract at that moment. Number of contract is the base for the trading volume and it shows the tendency of the market to response to the new information soon. The inter relationship between turnover and number of contract is seen. Turnover is also taken as the variable which can predict the movement of futures market during the study period.

TABLE 8: RESULTS OF VARIANCE DECOMPOSITION OF TURN.

Time Lag	SPOTR	FUTR	OI	CONT	TURN	VOLA
1	2.181170	0.145222	2.083159	95.22239	0.368061	0.000000
2	2.844747	0.124146	2.528716	93.85457	0.472203	0.175615
3	2.596644	0.149363	4.376952	92.23158	0.436317	0.209140
4	2.389782	0.140549	6.111264	90.75694	0.406288	0.195174
5	2.196794	0.177894	6.912034	90.01739	0.441207	0.254678
6	2.007132	0.224532	7.571891	89.47858	0.455025	0.262842
7	1.871717	0.211184	8.315269	88.85817	0.454178	0.289485
8	1.749948	0.199810	9.209303	88.07959	0.452817	0.308535
9	1.644363	0.189221	10.11286	87.26832	0.456629	0.328609
10	1.561821	0.181427	10.87597	86.56105	0.462238	0.357499

Table 9 explains the result of variance decomposition of volatility as dependent variable during the study period. 99% of shocks in volatility of futures market are explained by the same variable itself. At the same time minimal level of variance of the shock can be predicted by other all variables on happening of that event. As days pass by after the shock, the proportion of predicting variance of the shock is decreasing and more percentage is transmitting to other variables. The shocks in futures market volatility can be predicted by spot market return at 14.97% and the other variables are predicting the shocks in very minimal level. Spot market return will get changed and affected due to volatility in futures market. It means that more speculation in futures market may have effect on the return from spot market. The null hypothesis of the study like there is no enough level of transmission of information from spot market to futures market and determinants of futures market such as Open interest, Turn Over, Number of Contract and Volatility of futures market are not having enough level of information transmission from one to another are rejected on the basis of results of the various decomposition model. This study really gives a picture on the transmission of information from futures and cash market and from cash market to futures market.

TABLE 9: RESULTS OF VARIANCE DECOMPOSITION OF VOLA.

TimeLag	SPOTR	FUTR	OI	CONT	TURN	VOLA
1	0.042328	0.025831	0.170622	0.654221	0.179674	98.92732
2	1.239369	2.371746	0.115349	0.529920	0.117716	95.62590
3	3.490884	2.273988	0.087435	0.475777	0.089578	93.58234
4	6.264057	2.256593	0.073415	0.456744	0.075105	90.87409
5	8.529155	2.328372	0.066815	0.497730	0.072630	88.50530
6	10.81854	2.227328	0.064437	0.517967	0.074066	86.29766
7	12.38084	2.127969	0.065412	0.520124	0.080106	84.82555
8	13.52408	2.071656	0.068523	0.526901	0.085590	83.72325
9	14.32495	2.031407	0.070579	0.536685	0.091635	82.94475
10	14.97685	1.999249	0.073037	0.546676	0.096635	82.30756

CONCLUSION

Variance decomposition result explains the response and shocks of each variable and the proportion of the shock transmitted to the other variables at the moment and one day or within 10 days. This analysis found that spot return, turnover, open interest, futures market volatility and number of contracts are playing a vital role to predict the movement of futures market because of their causal relationship among them. The shock of futures market transmits suddenly to spot market and the spot market bears the shock in itself. The same relation is seen in the case of number of contract and turnover. Around 90% of the reflection of the shock in the turnover comes to the number of contract immediately and the shock of number of contracts is stayed in the same variable itself. All related variables are transmitting their shocks to each other and they are able to predict the movement of other variables up to an extent.

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GREEN ICT SERVICES AND ISSUES: NANO, GRID AND CLOUD COMPUTING

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ABSTRACT

The global demand of world energy consumption has increased every year remarkably. These developments are not addressing the global challenges in the area of IT development. Green Innovation is only way to address this problem.Understanding and identifying the strategies are needed to achieve Green IT, Which is most important one in the current global world IT development scenario.This paper deals through information collected through discussions, reviews relevant to the development and use of Nano, Grid and Cloud computing for Green Innovation.This is a study relating to the introduction of Green IT and issues connected with recent trends and development of IT such asNano,Grid, Cloud computing.

KEYWORDS
Green IT, Green Computing, Green Grid and Cloud Computing.

INTRODUCTION

Green Computing is a study related with environment and maximizes energy efficiency without affecting nature of the environment. By way of practices only environment sustainable can be possible to save our earth. Sustainable development can have three pillars which are economic, society, and environment.These are closely related one to another to achieve high in the world.The Organization for Economic Co-operation and Development (OECD) is an international economic organization which can stimulate economic progress and world trade. The environmental protection and economic growth can have connection with OECD. The OECD measurement framework indicates four key areas such as environment and resource productivity, economic and environment assets, environment quality of life economic opportunities and policy responses. In this paper deals various concepts related with Green IT and ICT. The term "Greening of ICT" refers to the direct effects of ICTs, and the term "greening with ICT" to the enabling effects of ICTs. Greening of ICT in a narrower sense refers to ICTs with low environmental burdens but using ICT as an enabler reduces environmental impact across the economy outside of the ICT sector. Now a day, 'Being Green' has become popular word for the ICT Development in achieving energy- efficiency in the ICT sector. ICT has a key role in enabling energy efficiency in most areas, including the cutback of its own sector's carbon productions. Organizations are coming under increasing study for how they are using energy efficient methods in the day-to-day operation of the trade, and whether energy is being wasted through various ICT-related processes.

GREEN ICT

According to Hart (1997), Green ICT often refers to meeting the needs of present generationsno compromise the quality of future generations to meet their needs and involves pollutionprevention at the end of a product's use, product stewardship to minimize the environmentalfootprint during use, and use of clean technologies to reduce the use of polluting materialsand develop environmentally friendly competencies. Green ICT naturally originates with IT itself. It is sometimes referred to simply as Green IT and it means different things to different people.

According to Molla (2009), it is the systematic application of ecological-sustainability criteria to the design, production, sourcing, use and disposal of ICT technical infrastructure (ii) as well as within the human and managerial components of ICT infrastructure in order to reduce ICT, business process and supply chain related emissions, waste and water use; improving efficiency and generate green economic rent.

FIGURE 1.0: GREEN ICT
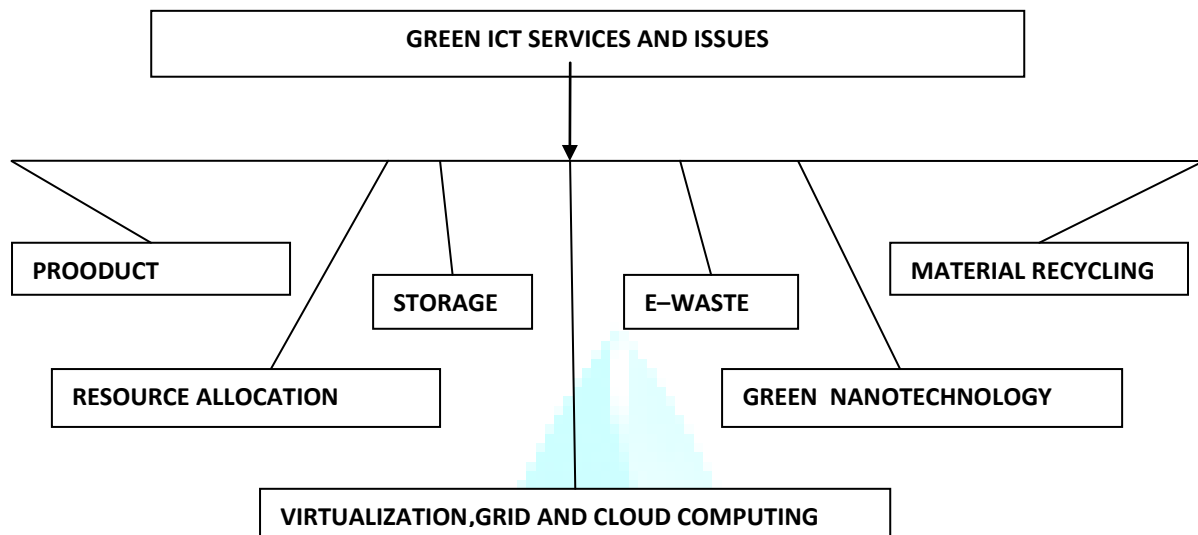
PROODUCT LONGEVITY

The components of a system are hardware, software, networks. For a new PC manufacturing which not only concentrate operational, economical, technical feasibilities more than that we need look the ecological systems that can be avoid E Waste.The Electronic Product Environmental Assessment Tool isaevaluation method for product life cycle effect on the environment which will access the environment affected variables and their impact.

RESOURCE ALLOCATION

The resource allocation is assignment or utilize of available resources for usability. In general resource allocation can be interrelated with people, materials, equipments, knowledge and time. In IT resource allocation mainly focuses allocation of hardware resources such as memory devices, input, and output resources. The physical resources can be shared by multiple systems. Using appropriate algorithm to allocate resource with less expensive. Priority based memory allocation, energy aware resource allocation, schedulingare areas which are facing more challenges in the IT because Infrastructure as Service as the fastest growing system.

STORAGE

Storage is device or media used to recording digital data. Primary and secondary storage devices. Mainly three types of data storage methods areavailable to store data. These are portable methods, semi portable, and volatile. Mostly electronic devices needed to store and retrieve using electrical power. Changing the strategic of usability and operability can reduce the power energy and save the environment to ensure the Green IT. Volatile organic compounds might be used to preserve the environment. In this view cloud computing system can help to avoid unnecessary equipments to managing or handling storage system.

E – WASTE AND MATERIAL RECYCLING

Recycling is a process to change waste materials to useful product. Recent days Effective ways are used to reuse ,recycle or recovery power energy even from food waste. E- commerce exchange of goods and services for money done through internet which can have four model such as B2C,B2B,C2B,C2C so Electronic system is dominating system in the computer world. In the E- waste, Electronic industry or manufacturer of the E materials is one of most responsible person to avoid health issue of users who are using E system like mobile hand set. When recycle the computer system is larger issue in the view of privacy of data in this case data recovery may damage the main goals of the task.

VIRTUALIZATION , GRID AND CLOUD COMPUTING

Virtualization is a methodology for dividing the computer resources to more than one execution environment and various resources can be accessed by one system. For this number of concepts must be applied to virtualizes the system like partitioning, time sharing, machine simulation. The virtualization performs multiple operations using a single physical media. Grid computing completely support distributed systems which can achieve multiple sharing and accessing over the network with using common and single physical hardware system, obviously which will save the environment to leads the Green IT system. The latest and fastest growth of cloud computing offers efficiently in cost saving for businesses and users. The cloud computing hardware is maintained by separate multiple third party servers with the help of different data centers. It is a powerful platform that provides services on demand, which are always on, anywhere, anytime and anyplace. Cloud computing is more concerning in context of economical, technical and operation feasibility. The cloud ecosystem model helps many ways to employing Green IT System.

GREEN NANOTECHNOLOGY

Products and processes that are safe, energy efficient,reduce E Waste which would be based on renewable materials. The electric cars are using nanotechnology enabled batteries which can improve sustainable green processing, energy shortages and scarcity of clean water. There are significant potential markets for this but very few products are commercialized today. Defining a new Green IT enabled Product and selling the product, investing money are big challenges in the near features.

CONCLUSION

There are no of applications and possibility available to achieve Green IT, it is effort and interest of the company to use these options to save environment. The companies must ready to change their IT Strategic to incorporate action plan or implement Green IT system.The company concentrate to follow Green ICT , it will give many more benefits and advantages such as reduces costs, creates opportunities , maximizes Environmental Benefits.Each citizens of this world are more responsible and aware of the natural system, ecological system, climate changes and, global warming that world wake up to the needs of Green IT and their sustenance's.

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A REVIEW OF SPORTS GOODS CLUSTERS BY SWOT ANALYSIS: MEERUT CLUSTER IN PARTICULAR

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ABSTRACT

The sports goods industry in India has witnessed phenomenal growth over the past five decades and now occupies a place of prominence in the Indian economy in terms of its massive potential for employment generation and export. Indian sports goods industry is said to be the labor intensive and provides employment to the weaker sections of the society. However, it is threatened by several other factors such as scarcity of quality raw material, labour laws, poor financial support and import of cheap Chinese products which directly or indirectly affect the economy, employment and other benefits of the industry. The present study highlights the strengths, weaknesses, opportunities and threats of sports goods cluster of India as well as Meerut by using SWOT (Strength-.Weaknesses-Opportunities and Threats) analysis and thereby providing some possible recommendations to overcome the weaknesses by its inherent strength and confront the threats by prevailing the opportunities.

KEYWORDS
Sports goods clusters, SWOT analysis.

INTRODUCTION

India is a home of several traditional sports such as kabbadi, kho- kho, pehlwani (wrestling) and gilli-danda etc. The British brought many popular sports in India including football, rugby, cricket, golf, tennis, squash, hockey, boxing, snooker and billiards etc. The modern Indian sports goods industry has its roots in Sialkot (today in Pakistan). After partition some of the artisans and craftsmen migrated to India and settled down in Jalandhar, Meerut and other towns of the country. Over the period of time these towns have been developed as the sports goods clusters. In the mean time these clusters have seen many ups and downs and now occupy a place of prominence in the Indian economy in terms of its massive potential for employment generation and export. The present study highlights the strengths, weaknesses, opportunities and threats of sports goods clusters of India as well as Meerut by using SWOT (Strength-.Weaknesses-Opportunities and Threats) analysis and thereby imparting some possible recommendations to overcome the weaknesses by its inherent strengths and confront the threats by prevailing the opportunities.

SWOT ANALYSIS

SWOT analysis is a self appraisal tool used to identify the internal strengths and weaknesses of an organization. It also investigates its opportunities for growth and improvement and the threats the external environment presents to its survival. It is a popular and versatile tool, but it involves a lot of subjective decision making at each stage. The features of SWOT analysis are:

- It is elaborative enough to describe the organization's position against the contender.
- Identifies best future opportunities.
- Highlights current and future threats.

SWOT ANALYSIS OF SPORTS GOODS CLUSTERS IN NATIONAL PERSPECTIVE

STRENGTH

Globally, the sports market is one of the most complex and diverse markets in which the government, federations and private sector are intertwined and all of them play an important role. Government policies directly or indirectly impact the development of sports in any country. However, these policies vary from country to country. Prior to 1990's, sports sector in China, one of India's major contender, was completely government funded, however, since then, there has been corporatization of sports. This has helped in professionalization of sports and improving sports environment in China. In India most of the sports goods manufacturing companies comes under the category of medium or rather small segment. The government has taken various steps to facilitate these industries in the following ways:

GOVERNMENT INITIATIVE

Recognizing the importance of sports, the Government of India has established various departments such as Sports Authority of India (SAI) for sports promotion and management. The Ministry of Human Resource Development (MHRD) was set up in 1985, with the objective of integrating efforts for development of human potential in the areas of education, women and child development, arts and culture, youth affairs and sports through its constituent departments. The government has also setup different institutions in this direction as under:

- Small Industrial Development Organization (SIDO) to assist the government in formulating and implementing its policies/programs/ projects/ schemes for MSME etc.
- National Small Industries Corporation (NSIC) to foster the growth of MSMEs in the country.
- Entrepreneurship Development Institute (EDI), to promote the entrepreneurial culture in the country.
- National Commission for Enterprises in the Unorganized Sector (NCEUS), constituted in 2004 for a period of three years to examine the problems of enterprises in the unorganized sector and suggest measures to overcome them.
- Ministry of Micro, Small and Medium Enterprises (MSME) to promote, develop and enhance the competitiveness of micro, small and medium enterprises.
- Small Enterprise Information and Resource Centre Network (SEIRCN) to connect the entrepreneurs globally to the latest information base.
- Process cum Product Development Centre (PPDC), established in various cities of country with industrial significance e.g. Jalandhar, Agra and Meerut etc. to facilitate indigenous product development and enhancement.
- Sports Goods Export Promotion Council (SGEPC) to promote the export of sports goods from the various sports goods clusters of the country.

In addition to this, many more organizations are also working in this direction to fulfill the aspirations and requirements of the segment.

AVAILABILITY OF SKILLED LABOUR

According to National Productivity Council Report (2010), in general, 60 percent of the workforce is skilled while 40 percent is unskilled in the sector. This skilled labour constitutes the technically untrained artisans and craftsmen, working on the customary benchmarks.

GROWING YOUNG AND URBANIZED MIDDLE CLASS

According to Federation of Sports and Play Association report (2011), more than 1.2 billion people live in India and nearly half of them are less than 25 years of age. Due to continuous development in life style and the immigration of educated youth to the urban areas, the demand of fitness products as well as other sports goods has increased and this increased demand fosters the country's sports goods industry a lot.

WEAK BUT CONTINUOUS SPORTS PARTICIPATION

It is quite significant to highlight, on the basis of some consumer researches that many people are interested in purchasing sports clothing and sports shoes if they have the money, even if they don't practice sports. Growing disposable income and shifts in lifestyles, particularly in urban India, have also begun to change people's leisure habits and promoting more physical exercise, particularly through running and membership in fitness clubs.

CONTINUOUS DEVELOPMENT

According to the National Productivity Council Report (2010) and Dubey and Singh (2011), today, Indian sports goods manufacturers are exporting their products under their own brand names. India's share of the global sports goods exports has been grown manifolds.

CORPORATE INVOLVEMENT IN SPORTS

Many corporate houses such as Relience industries Ltd., Sahara India, Vodafone, India Cement, Muthoot Finance, PEPSICO India, Hindustan Lever Limited, SS Sports, Nelco, SG Sports and BDM Sports etc. are sponsoring different sports activities, teams and players as well. It helps to strengthen the sports culture in the country, thereby directly or indirectly improving the health of sports goods industry.

OTHER STRENGTHS

- More than 100 years old industry with strong base of traditionally skilled man power.
- Abundant human resources at lower wages.
- Emergence of India on global manufacturing scene.
- Low overheads due to small scale production.

WEAKNESSES

Apart from the strengths, as mentioned in the above sections, the industry is also confronted with number of problems, constraints, handling hazards, limitations and rigidities as under:

WEAK NATIONAL SPORTS POLICY

The national sports policy states that the objective of broad-basing sports primarily remain the responsibility of the states and the central government. At yet, another level, a third set of key stakeholders, viz., the National Sports Federations, are neither within the jurisdiction of the states, nor the central government.

CONFUSING MINISTERIAL STRUCTURE

According to the study conducted by Mukherjee (2010), at the manufacturing and retailing end, there is no single ministry governing sports goods sector. Sports equipment falls under the jurisdiction of the Ministry of Commerce and Industry while sports apparel is under the Ministry of Textile along with textile, apparel and home furnishing, etc. Retail, on the other hand, is a state subject according to the Indian constitution and, therefore, state governments are the main regulatory authority.

WEAK RESEARCH AND DEVELOPMENT ACTIVITIES

The R&D in sports goods segment is really in the bad shape. No dedicated research center is established by the stakeholders to develop the new techniques, which could cultivate different sports goods clusters, for up gradation of existing technologies, materials and human resources, manpower planning, market development, equipment problem and other technical assistance etc.

POOR AVAILABILITY OF RAW MATERIAL

The sports goods industry widely depends upon the natural resources such as wood, cane, scrap and virgin metal etc. The availability of these materials depends largely upon the climatic conditions of the particular place where these are grown. Hence the fluctuating availability of raw material is a big problem for the craftsmen.

LACK OF FINANCIAL SUPPORT

Most of the small business entrepreneurs depend on traditional sources of finance such as personal or family sources or local moneylenders. Credit available through financial institutions is either availed by large entrepreneurs and the smaller ones are deprived of it due to illiteracy, lack of awareness, rector procedure required for obtaining loans or due to local petty politicking.

POOR INFRASTRUCTURE

National Productivity Council (2010) reported that most of the entrepreneurs are not satisfied with the quality of basic infrastructure of the cluster such as lack of adequate design centers, evaluation and demonstration facilities, services and feasibility studies, pilot plant trials, testing facilities, environment cleanliness including effluent treatment and disposal facilities. Absence of common facilities, non-availability of developed tool rooms and standards for ensuring quality and accuracy of the work/ product and proper storage and handling facilities etc. are some of the other factors. In addition to these factors erratic power supply is one of the major problems reported by most of the entrepreneurs during field survey (Garg, 2014).

OPPORTUNITIES

Rather, many factors that affect the performance of sports goods clusters are lying down still if given the right opportunity, the cluster can flourish. Some of the opportunities that Indian sports goods cluster can avail are as follows:

INCREASE IN PRODUCT DEMAND

Dubey and Singh (2011) and the field survey (Garg, 2014) have reported that the demand of sports goods have increased over the past years due to some of the mega events organized on the soil of the country such as Indian Premier League (IPL), Indian Super Football League (ISL), Pro Kabbaddi League (PKL), Indian Tennis Premier League (IPTL) and Indian Hockey League (IHL) etc.

MEGA EVENTS

India has organized some mega events in the past five years such as Commonwealth games, Cricket World Cup, Formula one car racing, a series of IPL events, ISL and IKL events etc. These events not only motivate the youngsters to involve in sports professionally but also give oxygen to the sports goods artisans and entrepreneurs.

TECHNOLOGY UP-GRADATION

There are lots of opportunities for sports goods industry in up gradation of existing technology. The import of upgraded technology can be in the form of Foreign Direct Investment (FDI), collaborations and purchase of technology etc. Mega events are one of the major avenues for the identification of latest technologies. This opportunity can be adopted by various manufacturing houses.

INCREASE INVESTMENT

It has been reported by most of the entrepreneurs that the investment in the sports goods industry has been increased significantly over the past five years (Garg, 2014). Big corporate houses (like Reebok, Addidas and Puma etc.) have entered with heavy investment to exploit the young, energetic and mall culture fascinated Indian market. It could be a great opportunity for the Indian manufacturers to adopt their quality standards and the marketing strategies to rule the world as these big fishes are doing.

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EMPLOYMENT ENHANCEMENT

Sports goods industry is labour intensive and could be a safe avenue for large number of artisans and craftsmen. If to take the instance of developed nations like USA, UK and Hong Kong etc., in spite of being sound technological base and automation, large work force has been absorbed by the sports goods clusters of these countries (Garg, 2014).

POLICY RELATED TO FDI

FDI will encourage the Indian manufactures a lot to sell their products in the highly competitive and quality oriented international market because the FDI will come with some good management practices and latest technological know-how.

RETAIL OUTLETS

Some of the financially and technologically sound sports goods manufacturers of India can collaborate with the big giants (like Reebok, Addidas and Puma etc.) to setup a retail chain of indigenously make products and can establish a brand India.

OTHER FACTORS

- Large and expanding domestic market.
- Increase in demand due to rise in the disposable income and capacity to spend by the domestic consumer.
- Growing confidence, of both domestic and international buyers, on the Indian sports goods.
- People are more health conscious now than ever.
- Achievements of Indian sports persons increasing the awareness and popularity of sports in India.
- Overseas buyers are looking for alternate source of supply instead of heavy dependence on one country.

THREATS

Although India has improved a lot in manufacturing sector, over the past years, still sports goods sector is estimated as the niche segment and facing several threats on international and domestic fronts as under:

THREATS AT INTERNATIONAL LEVEL

Despite, achieving significant growth in exports, India contributes just one percent to the global sports goods market. On the other hand, India's import of articles and equipments for sports is an alarming factor for Indian sports goods industry. The sports goods import from China and Taiwan are increasing at a rapid pace. Although these countries do not have skilled labour base but the bigger source of threat is their high production capacity at the cheaper price tags due to high mechanization.

GOVERNMENT RELIABILITY ON FOREIGN BRANDS

The government and different sports federations are the major buyers of sports goods in India but their inclination towards foreign brands is a threat for domestic manufacturers. Sports goods imported by the government are exempted from import and other duties. With the advent of corporate retailers/ big brands, many of them directly work with government and /or federations. This cut down the benefits of Indian sports goods manufacturers.

TAXATION AND LEVIES

According to Garg (2014) most of the entrepreneurs are not happy with the taxation policy of the government. They feel that taxes are very high and should be cut down so that Indian sports products could be competitive in the global market.

PENETRATION OF GLOBAL BRANDS

Some studies highlighted that multi-brand retailers like 'Planet Sports' and big brands like Nike and Reebok have focused on school children as a big market for sports products. They are working with the mindset that if these children like a brand, it will stay with them throughout their life. Brands have come up with competitive pricing strategies to get business from this segment. It will hit the benefits of Indian manufacturers in the long run.

HIGH LOGISTIC COST

In India, the logistic chain is highly fragmented and is marked by the presence of a large number of intermittent. Delay in transportation, requirement for multiple documentations at state borders increases the costs of inventory being transported. India spends approximately US$30-40 billion more than it should on logistics due to inefficiencies in the system (Garg, 2014). It is also estimated that approximately 14 percent of a product's cost represents logistics-related cost.

POOR AVAILABILITY AND STORAGE FACILITY

Import barriers such as delays and cumbersome custom clearance process, inadequate warehousing facilities at airports and harbors, bribes and corruption can also be considered as the threat for Indian industries including sports goods sector. Sudden and unplanned shortage of raw materials can lead to non-availability of goods at the retail end.

STRINGENT LABOUR LAWS

Most of the units in sports goods sector are small and medium enterprises having limited production capacities. They are unable to serve the requirements of buyers in case of large orders to be delivered in a time bound manner. Since such orders are not regular, manufacturers are wary of increasing their capacities due to stringent labour laws.

POOR MARKETING PRACTICES

In the small scale industry one of the vital obstacles of development is the existing system of marketing and distribution of products. Presence of middlemen/agents as the intermediaries is problematic, especially for tiny business entrepreneurs. Inadequate market awareness is another problem faced by the small businessmen, which reduces the foreign exchange earning capacity of the industry.

DECLINING GROWTH OF UNITS

As per Dubey and Singh (2011) and the field survey reports (Garg, 2014) most of the manufacturers reported that there is a large competition in the market and the major threat is the penetration of cheap Chinese sports goods in the Indian urban as well as sub-urban markets. It declines the growth of Indian manufacturers.

OTHER FACTORS

- Low consciousness on international safety and quality standards.
- Introduction of high tech materials (graphite and composites etc.) and latest technology by international manufacturers.
- International brands gaining popularity in India.
- Market is vast and targeted only for low and lower middle income groups.
- Breakage of raw material in transportation.

SWOT ANALYSIS OF SPORTS GOODS CLUSTER OF MEERUT

Meerut sports goods cluster is spread across a radius of approximately 10 km. The cluster produces a large range of sports goods and about 60 percent of the total production is being exported to Australia, South Africa, England, America, West Indies, New Zealand, Zimbabwe and Bangladesh etc., and the remaining products are sold in the domestic market across India. An attempt has been made to analyze the Meerut sports goods sector with the help of SWOT analysis a under:

STRENGTH

Sports goods cluster of Meerut is one of the ancient, prominent and established clusters of India. It has certain strengths as:

CLUSTER LOCATION AND INFRASTRUCTURE

Meerut is an industrial city located in the close vicinity of national capital Delhi. Due to this it is facilitated with all the basic infrastructural requirements such as transportation, connectivity with the national road network and a vast market to sell the sports goods produced in the cluster.

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GOVERNMENT INITIATIVE

As discussed in previous sections government has taken various steps to promote Meerut at the international map of sports commodities by establishing Directorate of Industries office, Process cum Product Development Centre (PPDC) to provide latest testing and product development facilities to the entrepreneurs and many other offices and financial assistance centers. Government has also offered certain incentive schemes to the exporters of sports goods.

EMPLOYMENT GENERATION

The cluster provides employment to the weaker section of the society; particularly the craftsmen belong to schedule cast community. The segment is highly labour intensive, due to low mechanization; hence there is a vast scope of handmade articles, which could be prepared easily in any household or cottage industry. It is also beneficial to the physically constrained people as well as female workers. Low investment is also a point of attraction to the below poverty line (BPL) families. It has become a good source of income and they can smoothly run their living hood.

CAPABILITY OF IMPARTING QUALITY WITH IN LIMITED RESOURCES

According to field survey, cricket accessories manufacturing units in Meerut are relatively better organized and give more attention to quality within the confined and constrained resources. Quite a few industry export substantial volume to all over cricket playing countries in the world and have established their brands such as SS, SG, SF and BDM etc. Some units produce standard quality goods in large quantity using continuous/ semi-automatic process.

FOREIGN CURRENCY GENERATION

Meerut sports goods cluster generates substantial amount of foreign currency by exporting its products. It is estimated that this figure is approximately Rs. 125 Crores per annum (Garg, 2014).

HIGH WORKMANSHIP

The field survey (Garg, 2014) estimates that 80 percent of the industry depends on labour and rest on the machines. The craftsmen are skilled enough to produce quality product manually against the predefined benchmarks. Hence the sports goods cluster of Meerut is found to be highly labour intensive.

AWARDS AND HONOURS

According to the news reported by hindi daily 'Dainik Jagran' (9th April 2012), Meerut based sports goods companies have been honored by three brand promotion awards out of five in the award ceremony organized by Sports Goods Export Promotion Council (SGEPC). The sports city has proven its determination for excellence again, in the field of cricket sporting goods, table tennis and athletics products etc. Further the cluster has won total of 21 awards out of 81 in different segments.

OTHER FACTORS

- Handmade products.
- Easy availability of skilled labour in and around the cluster.
- A state of the art sports goods complex equipped with all facilities.
- Strong presence in the local market.

WEAKNESSES

Sports goods cluster has certain weaknesses as under:

UNORGANIZED STRUCTURE

Total number of units estimated in the cluster is approximately 3350 out of which 1250 are registered and 2100 unregistered enterprises (Garg, 2014). These large amounts of unregistered units are fragmented in Meerut and neither comes under the control of government nor any other agency. Most of the workers associated with these units are unskilled and daily wage workers. These units produce sub-standard products for the sub-urban as well as rural markets.

SCARCITY OF RAW MATERIAL

Garg (2014) identified that cluster faces many hurdles in procuring some of the other essential raw materials such as rubber, cane, threads and steel etc., for manufacturing of various sports equipments. Though raw materials are available within the country yet it can't be easily transported from one state to another due to interstate restrictions in goods movement.

CHILD LABOUR

The exposure of child labour, engaged in sports industry of Meerut city and its surrounding regions, was first highlighted by an Indian NGO, Bachpan Bachao Andolan- BBA in 2009 under the supervision of Kailash Satyarthi (Noble Prize Winner 2014). It has been viewed that big companies outsource work to small contractors, who take unfair advantage of the poor in villages and small towns, who then employ young children to churn out footballs and other sports gears at the cost of their health and education. Children as young as six are employed in the football-manufacturing industry right across the city and adjacent villages.

FRAGMENTED STRUCTURE

As per the statistics collected by Garg (2014), there are around 3350 sports goods manufacturing units in Meerut which are fragmented from urban areas like Sports complex, Delhi Road, Mohkampur, Suraj Kund Road, Victoria Park, Jail Chungi and Lal Kurti etc. to the villages around it namely Abdullahpur, Jangethi, Mohkampur, Nai Basti, Maliyana, Partapur and Daurala etc.

CONVENTIONAL MANUFACTURING SYSTEM

Only a handful of enterprises in the cluster are able to tape international brands while most enterprises cater to the less sophisticated domestic market or the low-end export market. The major reason identified behind this weakness is technological stagnation and availability of manually skilled labour.

LOW AUTOMATION

According to survey conducted by different government agencies and Garg (2014) the automation in the sports goods cluster is as low as 0% in the field of stitching of football and maximum upto 40% in the athletic items manufacturing and sports- wear etc.

LACK OF PRODUCT DEVELOPMENT

Majority of the sportsmen are of the opinion that the sporting gazettes should have great strength but light weight. Graphite shafts in golf sticks, fiber glass in skis, different types of polymers in basketball shoes, PU (Poly Urethane) in inflatable balls, kevlar in sail boats and hockey sticks, etc. are some of the examples of latest material used in western countries. Research on some of the other alternate materials is under progress.

Small and medium enterprises are the back bone of sports goods cluster of Meerut. These units can not invest in the development of alternate materials in such a fashion that the international giants can. Poor initiation of government as well as technological institutes in R&D of such a material and equipment designing are also one of the major drawbacks.

DEPENDENCE ON IMPORT OF QUALITY RAW MATERIAL

Raw materials like wood, cork, cane willow, fine grade plastic and leather form the basic inputs to the production of sport goods. Sports goods cluster heavily depends on import either due to non-availability or rather low quality of available material. Changing consumer's requirements and demand for sophisticated equipments is catered only by the imported raw material.

LOW INCLINATION TOWARDS INTERNATIONAL QUALITY STANDARDS

AS reported in previous sections, a big segment of the units are unregistered and are working as the sub-contractors and supplies their products to the low standard sub-urban or rural markets. That is why they are less quality conscious. Most of these enterprises rather don't know about the national/ international quality standards.

UNSATISFACTORY FINANCIAL ASSISTANCE

It is expected that some segments (fitness products, athletic products, table tennis, health equipments and cricket goods etc.) of sports goods would perform well in the near future. But to cater this high demand the cluster should be well prepared with it's all the recourses. Capital is one of the major issues particularly for small as well as micro scale industries. The small unit holders complained that they don't have sufficient fund to fulfill even a fraction of demand if added in the market. They are manufacturing goods for big brands. Banks and other financial agencies do not look at them but always ready to finance the big enterprises.

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LABOUR LAWS AND REGULATIONS

According to the Department of Industrial Policy and Promotion report (2011), the labour laws are also creating problems for small and medium enterprises. Since the manufacturing units require employment of casual workers for short periods, depending on orders/demand. The labour laws need to be made more flexible for undertaking such engagements.

POOR RESEARCH AND DEVELOPMENT

There are very few enterprises in the cluster who are engaged in the development of new products to meet out the international challenges. Though, these units are enthusiastic enough to develop better products but on the basis of very few technically skilled persons. That is why they are not able to communicate their research effectively to the world. Piracy of this development is another hurdle.

LACK OF INDIGENOUS BRANDS AND MARKETING STRATEGIES

Sporting goods market is relatively small and split into several layers. The organized segment of the market is confined to the limited companies such as BDM, SG, SS, SF, Nelco and National Sports etc. These companies have been stepped up their investments but most of the small enterprise faces several problems including the market risk bearing capacity. That is why these small players focus their production either for international brands or for the low-end domestic market, rather than establishing their own brand.

DISPARITY IN SPONSORSHIP

It is the social responsibility of indigenous corporate houses to come forward to support the young and evolving talent in sports. It not only enhances the sporting culture in the country but also encourage the budding sports persons to perform at their best at national and international levels. But unfortunately these houses show more affinity towards established players and the glamorous mega events such as IPL, ISL, IHL, IPTL and IKL etc.

OTHER FACTORS

- No space or vision to organize cluster oriented trade fairs.
- Red-tapism and slow working in government departments.
- Fixed mindset to sell only in the domestic market.
- Erratic power supply and other infrastructural shortcomings.
- Weak association and union.
- Poor working conditions.

OPPORTUNITIES

Meerut sports goods cluster is labour intensive and has highly skilled labour. Willingness to continuous improvement within the limited resources its unique selling prepositions. These are some of the factors that could bring some good opportunities for the entrepreneurs as:

INCREASE IN PRODUCT DEMAND

Garg (2014) has explored that the demand of sports goods has increased over the years because of the adoption of sports as a full time career option by most of the youngsters. The present academia is also associated with the overall development of the students and sport is one of its vital components.

PRODUCTIVITY IMPROVEMENT

Productivity improvement in sports goods cluster has a vast scope. It will not only increase the size of the industry but also the employment opportunities. The cluster can be benefited immensely if a proper technical up-gradation of machines and equipments etc. is done. Ministry of Micro Small and Medium Enterprises (MSME) in order to enhance productivity of Indian industries, started 'Lean manufacturing competitiveness technology program' with the help of Government of Japan. According to this scheme only 20 percent of the total expenditure would have to be borne by the enterprise and rest by the government.

EFFECT OF MEGA EVENTS ON SPORTS GOODS CLUSTER OF MEERUT

Meerut has given many sports stars to the national teams. Raman Lamba, Praveen Kumar, Bhuvneshvar Kumar, Sudip Tyagi, Karan Sharma and Seema Puniya are some of them. It is the influence of mega events such as IPL, ISL and IKL etc. that today the youngsters are exploring their career in the sports and motivate others to sail in the same boat. This culture not only increases the inclination of young players towards the quality oriented sports goods but also provides an opportunity to the manufacturing units to produce world class sporting goods.

EMPLOYABILITY ENHANCEMENT

Garg (2014) has taken the reference of The Economic Times (22nd August 2012) and the report of ASSOCHAM (2012) which states that the employability in Meerut has increased by 38.5 percent, in the recent years, as compare to 23 percent in the same tier cities. The report also highlighted that the job market is expected to be boomed by 50 percent in the coming years as large number of retail outlets including sports goods would register their presence.

FINANCIAL ASSISTANCE

The field survey conducted by Garg (2014) says that about 28 percent entrepreneurs have taken bank loan facilities to establish and expand their businesses. The trained entrepreneurs are now stepping into the segment and availing all the facilities offered by the government time to time to establish or expand their existing facility.

OTHER FACTORS

- With the advent of information and communication technologies new products and designs can be made available easily.
- New machines and tools are now available to financially sound units.
- New products for higher income groups can help in creating new market.
- Some of the Indian brands have enough potential to expand their market horizontally and vertically.
- Potential for product diversification.

THREATS

Today's market is highly dynamic and quality oriented due globalization and social as well as economic reforms made by the governments over the past two decades. This not only increases the market size but also enhance the competition in the market. The sports goods cluster of Meerut has also not remained untouched and is confronted with the following threats:

TRADE COMPETITIVENESS

Among two major sports goods clusters of India-Jalandhar and Meerut; Jalandhar contributes approximately 75 percent where as rest is contributed by Meerut. Due to confined proportion, Meerut cluster is more threatened by Asian counterparts like Japan, China, Taiwan and Pakistan etc. It pays comparatively high tariffs as compare to Pakistani city, but with moderate productivity. Chinese and Japanese companies are more technologically advanced as compare to traditional Meerut cluster.

PENETRATION OF GLOBAL BRANDS

The growing Indian retail market, consistently high GDP, rising per capita income, large consumer base has attracted many foreign brands including sports goods segment to India, especially the brands of developed countries, which are facing a saturated market at home. Both traditional and modern retailers have pointed out that the Indian manufacturing sector has not focused on strong brand development (Garg, 2014). There are only a few Indian brands and hence they have no options but to purchase foreign brands.

PIRACY

It is has already been reported through various mediums that very few entrepreneurs have strived towards branding of their products like BDM, SS, SG, HRS, Nelco, Anand Track and Field Equipments and Bhalla International etc. Still many small and medium manufacturing units market their sub-standard products with big names and earn the handsome profit. During field survey conducted by Garg (2014), almost all the local giants' complaint that it is due to the wobbly government regulations towards the check of piracy.

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PRICE HIKE IN INDUSTRIAL LAND

Garg (2014) has taken the reference of prominent English daily, The Times of India (24th March 2011) that the escalating land prices have frozen the plans of expansion of many small scale industries in Meerut and nearby places. It has affected the chance of many companies, who are doing reasonably well and are engaged in the production of sports goods with full capacity, could not expand their facilities due to costly industrial land hence facing the stagnation problems.

POOR QUALITY SYSTEM

Perhaps, it is the most neglected area of this industry. Having laboratory and carrying out quality control check is exception (very few units have). Practically, there is no check for incoming raw material. However, some cursory check with finished product is carried out-mostly visual, weight and sometime hardness by some units. PPDC offers some of the testing facilities to the manufacturing units but very few of them are interested to do so because their sub-quality products are sold in the market without hassle.

TECHNICALLY SOUND HUMAN RESOURCE

Equally neglected area is the recruitment of qualified technical manpower. PPDC, Meerut offers the polymer technologist course and the young ones do it with full enthusiasm but after the completion of their course they found limited scope for them in the present industrial culture. So they migrate to other industrial towns like Gurgaon, Noida and Ghaziabad etc. for their livelihood. Hence there is hardly qualified Polymer Technologist (PT) in the industry, especially in the middle level like supervisor and lab chemist etc., who could follow proper processing and technology required for the manufacture of the product.

SOME DISCOURAGING ELEMENTS

Inspite of having various factors of enthusiasm, some discouraging elements are still prevailing among the entrepreneurs like lack of financial support by the banks as they demand lots of formalities, limited demand of products because big brands and cheap Chinese products are capturing most of the sports goods segment such as fitness products, by-cycling etc., low returns on the investment to the artisans and small entrepreneurs etc.

RECOMMENDATIONS

By referring above sections it could be recommended that:
- Government first strives towards organizing the fragmented sports goods cluster of Meerut.
- Improved infrastructure and lenient government regulations.
- Government should instruct all the financial institutions, come under their control, to provide financial assistance to small entrepreneurs at minimum formalities.
- Poor R&D activities stagnate the product development. Government, in association with technological institutes of national repute viz. IITs and NITs, can fill this gap.
- One of the Government of India initiatives, PPDC has to become more vigilant to train the technically untrained but manually skilled labour of the sports goods cluster.
- Brand and quality consciousness have to be developed among the entrepreneurs by the competent agencies to meet out the local as well as international challenges.
- A warehouse should be established by the government to store the scare raw material during its high time and can be distributed among the industries according to their demand during lean period. This can also be used to store the finished goods. This practice can be adopted on the cooperative basis.
- Government should promote the lean manufacturing technology and motivate the manufacturing units to adopt it in order to increase the quality of the product as well the productivity of the manufacturing facility.
- Government should develop SEZ or dedicated industrial area for sports goods cluster of Meerut so that all the facilities can be made available within a premises.

CONCLUSION

It could be concluded that sports goods cluster of Meerut, in spite of having small segment, has a significant contribution in the economy of not only Meerut but also the nation. It is a labour intensive industry and should be emphasized more to enhance the employment opportunities. Different non-traditional avenues have also been explored in the study. Recommendations on the basis of SWOT analysis have been made. If these recommendations are materialized by the combined effort of different stakeholders of the cluster it would definitely write a script of remarkable success one day.

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EMPLOYEE COST ON PRODUCTIVITY AND PROFITABILITY IN SELECT PRIVATE SECTOR ORGANISATIONS: A STUDY

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ABSTRACT

The Omni presence of human resource management is seen and felt in all the activities of an organization. The direct and indirect effect of human resource management can easily be seen on productivity and performance of the organization. Without human resource management the non-human resource factors such time, money, infrastructure, goods became redundant. The human resource management is a catalyst transforms the non-human resource management inputs into value added outputs. But it has been a difficult task to measure the HRM parameters. But this papers attempts to measure one of the tangible aspects of HRM i.e. Employee cost. And also attempts to analyse tangible aspects of HRM and relationship with productivity/profitability of the private sector organisations.

KEYWORDS

Productivity, Profitability, Employee cost and Human Resource Management.

1. INTRODUCTION

Human Resource Management has emerged as a major function in organization and deals with how to manage people or employees in the organization. Human Resource Management is the organizational functions that deal with issues related to people such as compensation, hiring, performance management, organizational development, safety, wellness, benefits, employee motivation, communication, administration, and training. According to Stanton and **Coovert (2004)**[1] the activities of the HR function can be divided into three broad, interlocking functional areas: administrative, financial and performance.

Human Resource Management is a very critical and essential function that operates within an organization both in public and private sector. Further **Pradeep N Khandwalla (2013)**[2] shown that Human Resource Management is necessary at all levels of human activity from the individual to the organization to the community to the society and so for a developing country like India. In the coming three decades, a powerful synergy between Human Resource Management and technology can propel India to global economic and political power and the status of a prime civilization. It expressed that it doesn't meant only the HR department, but Human Resource Management as a process at all the levels of organizations, in all its departments and divisions, and practiced by all the managers from the CEO down to the first level supervisor. Further it articulated that meeting the challenges of the future, Human Resource Management in India needs to move beyond its traditional functions and benchmark itself against global standards.

Like in any management function, human resource management activities or decision involves using organizational resources such as money, time and facilities in the hope of achieving desired outcome and improving organizational performance. At the organizational level the typical performance factors considered are productivity and profitability. Impact of Human Resource Management on organizational performance is dependent on the adoption of an effective combination of Human Resource Management practices.

The present study evaluates the impact of select Human Resource Management practices and its financial impact on organization productivity and profitability. Human Resource Management is quite different from the traditional approach and is more of managing people at work. Human Resource Management ensures that the managers clearly convey the organizational goals and objectives so that it can be accomplished more efficiently and effectively by the employees by providing with the required resources when Human Resource Management activities are implemented as well as executed properly and systematically so that it have significant impact on the productivity and profitability**.**

2. LITERATURE REVIEW

Dr. Abdulah A.A.& Dr. Mohammad A.A.(2014)[3] showed a strong relationship between productivity and profitability. Moreover, it is found that productivity of the selected banks has been influenced by staff expenses to operating expenses ratio, staff expenses to total assets ratio and staff expenses per employee. Further it is found that profitability of the selected banks has been influenced by profit per employee, staff expenses to total assets ratio and staff expenses per employee.

Namrata Singh, (2013)[4] discussed that ineffective management of these attributes leads to low performance. Effective management of these attributes leads to higher performance. More over employees contribute to the productivity but at the same time many hurdles also exist which include insufficient recruitment and selection process, training and development, failure of recruitment and selection, training and development, performance appraisal, compensation, industrial relations and work life programs and lack of knowledge etc

Mini Joseph Tejaswi, (2013)[5] expressed that some of the financial impact has been sighted for human resource management attributes such as talent acquisition and mobility on an organization seen from the recent report stating that considering only one attributes of human resource management and how it is effecting the organizations in terms of finance. Indian firms are estimated to have lost at least Rs. 2460 crore in bad hiring in 2012. It is found that pressure and urgency to fill up positions, wrong benchmarking, poor screening, non-competitive hiring team, and lack of reference checks and fake identities and resume were among major factors that led to wrong inductions.

Qureshi et al. (2010)[6] expressed that human resource management have relationship and impact on productivity and profitability in public and private sector organizations. The study of human resource management practices has been an important and critical area in management and organizational performance. The influence of human resource management practices on organizational performance has been an important area of research in past twenty five years indicating positive relationship between Human Resource practices and organizational performance.

Wayne F Casio (2006)[7] discussed moreover measuring financial impact is the focus area for many years. But it is described the financial impact by enhancing return through selection for specific skills through training for specific skills, by reducing risk through lowering the variability in performance and by reducing factors that might derail performance and by increasing liquidity through improving flexibility to adapt the changing business needs.

Akio Morita (2005)[8] opined that process of recruitment, selection, training and development, performance appraisal, and rewards at Sony was built on the premise that employees were the most valuable part of the company. Indeed, it is employees who are its permanent associates and it is employees who serve the organization with their work, talent, creativity, and drive.

David E Guest et al. (2003)[9] Further productivity of the organization is measured by the value of sales per employee and profitability is measured by the company's profit per employee. The measure of sales per employee has been quite extensively used as an indicator of productivity. The use of profit per employee to measure profitability reflects a desire to use a measure that is related in some way to employees in the organization**.**

Right recruitment and selection practices, matching right people with right jobs, training the people with planned learning, continuously and right compensation methods, balanced performance appraisal , good industrial employees relations and helping the employees to balance the work and family leads higher productivity and profitability. The CEO of Allied Signal Larry Bossidy has rightly pointed it out. At the end of the day we bet on people, not on strategies. Culture enables an organization to be more competitive and development oriented. In the long run, effectiveness derives from an ability to build, at lower cost and more speedily than competitors, the core competencies that spawn unanticipated products **(Prahalad & Hamel, 1990)[10]**. Furthermore these functions and attributes have significant financial impact on productivity and profitability in both public and private sector.

3. STATEMENT OF PROBLEM

It is important to measure the financial impact of human resource management in private sectors in terms of productivity and profitability. This research focuses on how human resource management help the companies in increasing the financial performance towards the productivity and profitability. Measuring financial impact of HRM based on employee cost an attempt to correlate the HRM on productivity and profitability which is difficult to measure accurately in select private sector organisations.

4. OBJECTIVES OF THE STUDY

1. To study the relationship between employee cost and productivity/profitability in private sector organisations.
2. To study the impact of employee cost on productivity/profitability in private sector organisations.

5. CONCEPTUAL FRAMEWORK

Productivity	: It is measured by sales of the organisations.
Profitability	: It is measured by profit of the organisations.
Private sector	: It consists of only private sector manufacturer.
HRM	**:** It includes mainly tangible aspects like employee cost.

6. RESEARCH METHODOLOGY

Descriptive research which is fact finding is used to analyse employee cost and its impact on the productivity and profitability in select private sector organisations. For this secondary data is used to examine the relationship. All the relevant data were collected from the academic literature/ministry of corporate affairs/annual reports etc.

7. DISCUSSION AND RESULTS

Showing the correlation/regression between employee cost and productivity in select private sector.

R	R Square	Adjusted R Square
.972[a]	0.946	0.924

Table reveals that high multiple R-value (.975), indicating a very strong relationship between the independent variable (employee cost) and dependent variable (sales), An R Square value of 0.950 indicates that 95.0 of the variance in sales is accounted for by employee cost.
Showing the correlation/regression between employee cost and profitability in select private sector.

R	R Square	Adjusted R Square
.986[a]	.973	.962

It reveals that high multiple R-value (.689), indicating a strong relationship between the independent variable (Profit) and dependent variable (employee cost), An R Square value of 0.475 indicates that 47.5 of the variance in profit is accounted for by employee cost in private sectors.

8. CONCLUSION

The Omni presence of human resource management is seen and felt in all the activities of an organization. The human resource management is a catalyst transforms the non-human resource management inputs into value added outputs. But it has been a difficult task to measure the HRM parameters. But this paper found that tangible aspects of HRM like employee cost can be shown that it has direct impact and direct relationship with the organisational performance in terms of productivity and profitability of the organization. It also shown that productivity/profitability is accounted by employee cost of the company.

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ANNEXURE

ANNEXURE-I: SECONDARY DATA ON PRIVATE SECTOR ORGANIZATIONS

Private Company	Profit(Rs.in Cr)					Sales(Rs.in Cr)					Employee Cost(Rs. InCr)				
	yr 08-09	yr 09-10	yr 10-11	yr 11-12	yr 12-13	yr 08-09	yr 09-10	yr 10-11	yr 11-12	yr 12-13	yr 08-09	yr 09-10	yr 10-11	yr 11-12	yr 12-13
3M India ltd	56.66	92.86	98.88	64.93	52.49	742.47	1086.86	1191.41	1405.1	1574.13	92.93	124.08	149.07	185.66	212.82
AstraZenecaPharma India ltd	61.49	74.04	57.98	64.14	19.52	302.68	353.63	396.69	594.3	531.52	49.24	60.8	81.33	150.5	161.91
A B B India Ltd	359.47	65.69	186.67	136.37	49.47	6237.2	6287.12	7448.97	7564.99	5022.94	386.72	488.3	586.82	619.6	719.65
BoschLtd	552.88	526.67	858.44	1066.51	874	4601.82	4809.53	6681.75	8165.8	8659.1	529.76	609.03	609.03	896.1	1037.1
Biocon Ltd.	202.84	250.9	459.57	255.57	285.7	912.37	1163.08	1561.1	1555.8	1938	80.08	97.44	145.6	191.6	227.6
Bhuwalka Steel Industries Ltd.	-8.05	1.91	3.29	-2.21	-0.34	491.68	448.08	527.81	638.7	1096.6	5.03	5.1	6.14	6.66	7.215
Kavveri Telecom Products Ltd	41.4	34.45	31.2	11.34	11.68	334.03	255.57	200.98	180.57	140.73	4.8	3.27	4.01	3.37	1.72
Khoday India Ltd	15.87	-13.7	-5.58	-3.81	8.55	164.77	137.43	131.98	112.24	120.82	14.3	14.67	15.06	14.13	10.73
Mangalore Chemicals & Fertilizers Ltd	28.17	56.49	76.64	68.5	66.57	2484.73	2081.73	2507.86	3707.63	2779.59	43.81	45.38	52.09	59.25	65.01
Molex India Tooling (P) Ltd	987	1476	1567	1956	2210	1656	1987	2210	2688	3390	676	878	999	1237	1415
Page Industries Ltd	112.68	90.11	58.6	39.64	31.65	875.79	696.56	491.56	346.75	254.65	141.97	112.7	89.69	58.12	42.07
Strides Arcolab ltd	59.95	79.86	47.2	62.97	70.92	593.14	768.35	503.98	749.62	712.01	6.13	105.51	73.56	117.93	55.99
Silktex ltd	5.57	3.38	1.91	-2.33	-4.17	26.72	29.84	20.3	16.41	13.2	5.57	3.91	3.86	4.42	3.34
Sobha developers ltd	196.8	200.8	182.23	136.34	109.64	1803.02	1396.57	1376.69	1113.99	974.74	163.55	126.75	103.52	68.97	93.34
WIPRO LTD	2915.51	4871.7	4829.36	4671.37	5427.7	21507.3	22922	26300.5	31682.9	33226.5	9282.6	9093.8	10937.4	13311.5	15904.2

Source: Annual Report

IMPACT OF LOAN UTILIZATION IN RURAL AREA OF HIMACHAL PRADESH: A CASE STUDY OF DISTRICT MANDI

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ABSTRACT

Regional Rural Banks play vital role for the economic development of rural masses in rural areas in the country. The present study has made an attempted to examine the impact of loan utilization by beneficiaries of HPGB. The study is based on the primary data, which is collected through filling of schedule from the beneficiaries. Study revealed majority of beneficiaries obtained loan through KCC scheme from bank. And, their agricultural production & income has marginally increased due to use of KCC facility. Further, sales and profit of rural micro and small scale businessman are also has significantly increased after utilising financial assistance from the bank Furthermore, study revealed that by beneficiaries also maintained the significant level of working capital efficiently for business and agriculture purposes. Further, few beneficiaries has faced problems regarding higher rate of interest for business purposes, adequate security, lengthy legal formalities of section, sanction and disbursal of loan. The study has suggested making simple procedure for a better access of financial assistance to smallholders and less-educated/illiterate farmers.

KEYWORDS
KCC- Kisan Credit Card, HPGB-Himachal Pradesh Gramin Bank.

INTRODUCTION
As Gandhiji said "real India lies in villages," and village economy is the backbone of Indian economy. Indian economy is an agricultural economy. Agriculture plays vital role in the economic development of the country. Agriculture is not only the major source of income in rural areas, but also provides maximum employment in rural areas of the country. In India, 69 per cent of our population lives in the rural areas and majority of people in rural areas depend on agriculture for their livelihood. But, according to the data of the National Sample Survey (NSS), the growth rate of employment has declined from 69 to 55 per cent in agriculture. Consequently, the share of agriculture and allied sectors in the Gross Domestic Product (GDP) has been reduced to 14 per cent. Unemployment which was 7.2 per cent in the year 2000, increased to 8.1 per cent in 2010 in comparison to urban unemployment rate which increased from 7.7 to 7.9 per cent during the same period. Bank can be proved a boon in improving our rural economy to a large extent. Our rural economy is underdeveloped due to the shortage of finance. People are not able to start new business due to lack of working capital. The economic development of the country mainly depends on the availability of adequate credit facility to the various needy people. It is by providing credit to agriculture laborers, rural artisans, landless laborers, marginal farmers, industrialist, traders and businessmen etc. which can be achieved economic progress.

REVIEW OF LITERATURE
George et al. (1985)[1] have estimated the farmer borrowing costs for institutional and non institutional sources of finance and suggested that the documentation and certification fees should be brought down, which would further reduce the leakages from the count of loan. **Naidu & Naidu (1988)**[2] revealed that beneficiary's income had increased from paddy, jowar and groundnut crop between pre loan to post loan period. The same trend was observed in the case of dyeing & weaving in which the income was more in the latter cases. **Mukherjee (1996)**[3] has concluded that the credit needs of the rural poor and the RRBs should be guided by adopting standard banking principles in order to operate and discharge societal responsibilities placed on them. He is of the opinion that both viability of banking and meeting rural credit needs go hand in hand. He further advocates that the RRBs should maintain a balance of clientele having both high and low credit worthiness. **Swain (2007)**[4] has pinpointed that Bangladesh Grameen Bank in providing finance to small entrepreneurs and producers, has demonstrated that the poor people, when given access to responsive and timely financial services at market rates, repay their loans & use the proceeds to increase their income and assets. **Sharma (2013)**[5] has studied the role of credit disbursement policies of Regional Rural Banks in the sustainable development in rural area of Himachal Pradesh. She evaluate the functioning of the schemes as well as pattern of schemes and revealed that banks are successful in planning and implementing these schemes and the role of different agencies involved in the functioning of bank is also satisfactory. Furthermore she revealed negative aspect has considered i.e. corruption, favoritism, nepotism and resources are misutilised, etc. problems faced by the beneficiaries and their satisfaction level. In 2013, looking back to the first decade of the 21st century 2000-10, **Bharathi & Pravena (2014)**[6] strongly believe that this decade indeed can be called – India's Decade of Development in Financial Sector through Financial Inclusion. Study reveals that illiteracy and the low income savings and lack of bank branches in rural areas continue to be a roadblock to financial inclusion in many states and there is inadequate legal and financial structure. Financial literacy and level of awareness continue to remain an issue.

NEED AND SCOPE OF STUDY
In 1976 Regional Rural Banks (RRBs) have been set up in the country with the best intention of extending credit facilities to the rural folks for their economic upliftment. Presently Himachal Pradesh Gramin Bank is working with 189 branches in the Himachal Pradesh. It came into existence by amalgamating two regional rural banks; namely Himachal Gramin Bank and Parvatiya Grameen Bank on 15 Feb. 2013 in the state. The main objective of setting up regional rural banks in Himachal Pradesh is to provide credit and other facilities especially to marginal farmers, artisans, agricultural labouers and small enterprises in rural area. In this contest the present study is conducted to examine the patron of loan utilisation and problems faced by the beneficiaries of Himachal Pradesh Gramin Bank in the state. HPGB playing significant role for the development of rural economy and therefore, all efforts had been made to strengthen the rural banking structure in the state. The scope of the present study is limited to mandi district of the state.

OBJECTIVES OF STUDY
Objective of present study are:
1. To study the social economic factor of borrowers of Himachal Pradesh Gramin Bank's in rural areas of the state.
2. To study the patron of loan utilisation by the borrowers of Himachal Pradesh Gramin Bank.
3. To identify the problems faced by the rural beneficiary.

RESEARCH METHODLOGY
This paper has been prepared on the basis of primary data. The sample survey is conducted in mandi district of the state and 125 scheduled are filled from beneficiaries of different five branches of Himachal Pradesh Gramin Bank.

INTERPRETATIONS OF DATA

TABLE 1: AGE GROUP OF BORROWERS

AGE GROUP	NO. OF RESPONDENTS	PERCENTAGE
Below 35	19	15.2
36-50	60	**48.0**
51-65	35	28.0
Above 65	11	8.8
Total	125	100.0

Source: Primary Survey

The analysis reveals that out of 125 respondents, 60 beneficiaries (48 percent) belong to age group of 36-50 years, followed by 35 beneficiaries (28 percent) in age group between 51-65 years. On the other hand 19 beneficiaries (15.2 Percent) belong to below 35 years and remaining 11 beneficiaries have accounted to above 65 year of age group. It reveals that large numbers of beneficiaries were between the age group of 36-50 years and followed by age group of 51-65 years.

TABLE 2: CAST WISE CLASSIFICATION OF BORROWERS

CATEGORY	NO. OF RESPONDENTS	PERCENTAGE
General	70	**56.0**
Schedule caste	26	20.8
Schedule Tribe	5	4.0
Other Backward Class	24	19.2
TOTAL	**125**	**100.0**

Source: Primary Survey

Analysis reveals that 70 beneficiaries (56 percent) belong to general category followed by 26 beneficiaries (20.8) percent belong to schedule caste, 24 beneficiaries belong to OBC and remaining five beneficiaries belongs to ST category. The table revealed that majority of borrowers belong to general category bank hence this shows that financial assistance of the bank is fairly distributed among all categories.

TABLE 3: EDUCATIONAL STATUSES OF BORROWERS

EDUCATIONAL STATUS	NO. OF RESPONDENTS	PERCENTAGE	
Primary	7	5.6	36 Percent
Middle	15	12.0	
Matirc	23	18.4	
Higher Secondary (10+2)	44	**35.2**	64 Percent
Graduate	27	21.6	
Post Graduate or more	9	7.2	
Total	**125**	**100.0**	100.0

Source: Primary Survey

Table 3 shows that educational status of the borrowers under study is concerned, 35.2 percent are higher secondary passed, while 21.6 percent borrowers were educated up to graduate, and 8.4 borrowers had passed Matric. 12 percent borrowers have middle, and 5.6 percent borrowers belong to primary. And, only 7.2 percent borrowers are post graduate. Table depict that 64 percent borrowers are above higher secondary; hence it is reveal that highly educated people take more loan as compared to less qualified people in the rural area of the state.

TABLE 4: REGIONAL BACKGROUNDS OF BORROWERS

REGIONAL BACKGROUND	NO. OF RESPONDENTS	PERCENTAGE
Rural	115	**92.0**
Semi Urban	10	8.0
Total	125	100.0

Source: Primary Survey

Table depict that out of 125 beneficiaries, 115 beneficiaries (92 percent) are belongs to rural area and 10 beneficiaries (8 percent) are belongs to semi-rural area. It can be concluded that the majority of beneficiaries belongs to the rural areas and this indicates we cannot neglect the role of rural livelihood in the economic development of the state.

TABLE 5: CLASSIFICATION OF INCOME

INCOME GROUP	NO. OF RESPONDENTS	PERCENTAGE		
Below 50000	45	36.0	**72.8**	
50001-100000	46	36.8		
100001-150000	15	12.0	27.2	
150001-200000	6	4.8		
Above 200000	13	10.4		
Total	125	100.0		
			100	

Source: Primary Survey

Table 4 shows that 36 percent beneficiaries belongs to below Rs. 50,000 yearly income and 36.8 belong to yearly income between Rs. 50,001 - 1,00,000, 12 percent beneficiaries earn their income between 100001-150000, and only 10.4 percent borrowers who earned above 200000 in the rural areas of the state. Table state that 72.8 percent beneficiaries' family earn below one lakh per annum which is very low.
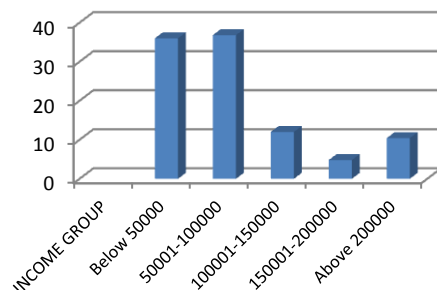
TABLE 6: TYPE OF LOAN TAKEN FROM HIMACHAL PRADESH GRAMIN BANK

Type of Loan	Frequency	Percentage
Business Loan	35	26.52
KCC	86	65.15
Self Help Group	5	3.79
Vehicle Loan	4	3.03
Home Loan	2	1.52
Total	**132**	**100.00**
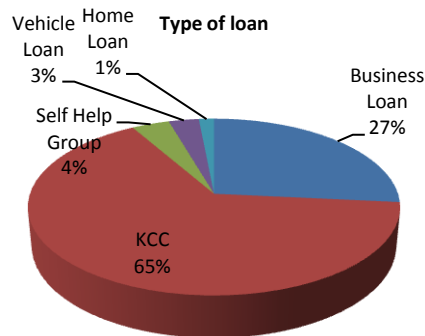
Source: Primary Survey

(N = 132; sample size increase due to multiple response by beneficiaries)

From the above table and graph depict that 65.15 percent beneficiary large number of rural people obtain loan through KCC scheme for agriculture purpose and 26.52 percent beneficiary obtain loan for business purposes. And 5 beneficiaries take loan for SHG (Self Help Group) and 4 beneficiaries took vehicle loan & 2 beneficiary took home loan from Himachal Pradesh Gramin Bank.

TABLE 7: ADEQUACY OF LOAN

Adequacy of Loan	Frequency	Percentage
Adequte	109	87.2
Inadequate	16	12.8
Total	**125**	**100.0**
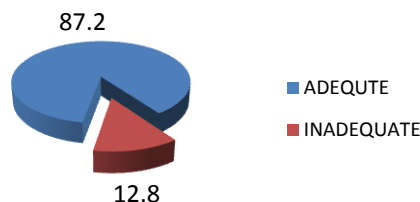
Source: Primary Survey

The break-up of the beneficiaries on the basis of adequacy, the amount of loan is given in Table 6. An overwhelming number of respondents (87.2%) have pointed out that the amount of loan was adequate to meet their requirements. However, some respondents (12%) pointed out that the amount of loan has not been sufficient to meet their requirement.

TABLE 8: BENEFICIARY'S HABIT OF GETTING LOAN

Loan taken	Frequency	Percent
First time	75	60.0
Second time	19	15.2
Third time	13	10.4
Fourth time	7	5.6
Fifth or more than Fifth time	11	8.8
Total	125	100.0
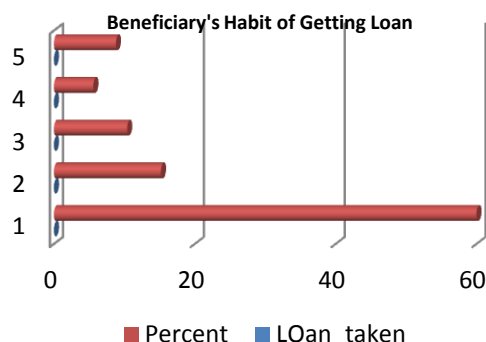
Source: Primary Survey

Above table & graph present the beneficiary's frequency of habits of taking loan facility from the Himachal Pradesh Gramin Bank. Table shows that 75 beneficiaries majority (60 percent) who took first time loan from the bank and 19 beneficiaries (15.2 percent) who took second time loan from the bank, 13 beneficiaries third time, 7 beneficiaries forth times and 11 beneficiaries who took fifth or more time loan from Himachal Pradesh Gramin Bank. From the above analysis it is revealed that the habits of using loan by rural folks are growing in rural areas in mandi district.

TABLE 9: PROBLEMS FACED AT THE TIME GETTING LOAN

Problems faced at the time getting loan	Frequency	Percent
YES	26	20.8
NO	99	79.2
Total	**125**	**100.0**
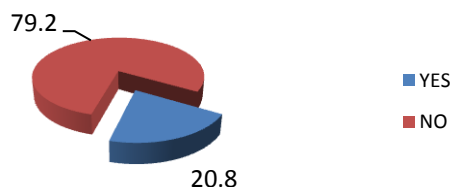
Source: Primary Survey

From the above table and graph it is depict that 79.2 percent large number of borrowers found satisfied because they did not face any kind of problems in dealing with these bank, so it can state that bank smoothly operating in rural areas, but 20.8 percent faced various problems in dealing with these bank. Dissatisfied beneficiaries ranked flowing problems as following manner: One Rank is given for highest problem faced by the dissatisfied beneficiaries and Second Rank is given for other difficulty or problem and so on.

TABLE 10: RANKING OF PROBLEMS

Problems Statement \ Rank:	1	2	3	4	5	6	total
1. Higher interest rate	11	6	3	0	2	4	26
2. Non- cooperation & Malpractices by the bank staff	0	0	0	0	7	19	26
3. Problems of providing adequate security	9	10	1	6	0	0	26
4. Delay in section & disbursal of loan.	0	3	19	3	1	0	26
5. Delay in sanction & disbursal of loan.	1	6	3	8	5	3	26
6. Lengthy legal or other formalities	7	0	0	8	11	0	26

Source: Primary Survey

From the above ranking table it is revealed that 11 beneficiary rank One for Higher interest rate, it mean rate of interest is very high for them, 10 beneficiary ranked two for problems of providing adequate security for getting loan, 19 beneficiary ranked third for delay in section & disbursal process of loan, forth rank is given for delay in sanction and disbursal in loan process, fifth rank is given to lengthy legal formalities for applying and getting loan, and last rank is given for non- cooperation & malpractices by the bank staff. Hence it is stated that there should take necessary footstep should be taken by the banks authority to sort these problems i.e interest rate should be decrease for business purpose and unnecessary legal formalities should be reduced and process of taking loan should be soft in rural areas, as well as timely section, sanction & disbursal the loan to borrowers, so far rural folk can easily deal with these bank and can fully utilised the banking facility in the rural areas of the state.

TABLE 11: SCHEDULE OF REPAYMENT

Schedule of Repayment	Frequency	Percent
Monthly		36.36
Quarterly	10	7.57
Half Yearly	6	4.55
Yearly	68	51.52
TOTAL	**132**	**100.0**

Source: Primary Survey

(N = 132; sample size increase due to multiple response by beneficiaries)

Above table and graph present schedule of repayment of loan. 51.52 percent has repaying their loan yearly basis, and 36.36 percent repaying their loan monthly basis. 10 beneficiaries repayment their loan quarterly and remaining 6 beneficiaries repayment their loan half yearly basis.

TABLE 12: CAPABILITY OF RETURN OF LOAN BY THE BENEFICIARY

Timely Return of Loan	Frequency	Percent
YES	92	73.6
NO	17	13.6
ALL MOST IN TIME	16	12.8
Total	**125**	**100.0**

Reason For Non-Payment Of Loan	Frequency	Percent
Failure of crops	8	47.06
Poor financial condition	1	5.88
Loss in business	1	5.88
Spent on daily need	3	17.65
High rate of interest	2	11.76
All the above	2	5.88
Total	**17**	**100.0**

Source: Primary Survey

From the analysis of table 92 beneficiaries (73.6 percent) return the loan timely, 16 beneficiaries (12.8 percent) also return loan all most in timely. But 17 beneficiaries (13.6 percent) beneficiaries failed to repayment their loan timely because of failure of crops in rural areas, also revealed that they can spent the loan amount on daily need. And due to poor financial condition and high rate of interest they are unable to return the loan timely in rural areas of the state.

TABLE 13: UTILISATION OF LOAN

UTILIZATION		Frequency	%age
a.	Purchase of agriculture equipment	22	16.30
b.	Purchase of seed and manure	65	48.15
c.	Purchase of animals	7	5.19
d.	Construction/ purchase of land & building	3	2.22
e.	Purchase of plant	6	4.44
f.	Working capital	23	17.04
g.	House Construction	1	0.74
h.	All the above	5	3.70
i.	Other	3	2.22
Total		**135**	**100**
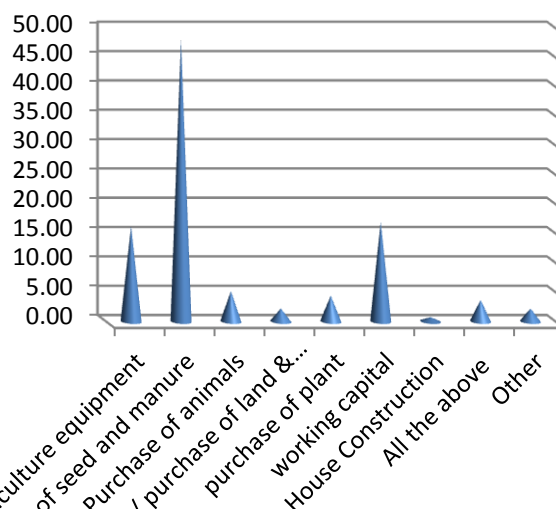
Source: Primary Survey

(N = 135; sample size increase due to multiple response by beneficiaries)

It is crystal clear from the table no13 that (48.15 percent) beneficiaries utilised their amount of loan for purchasing of seed and manure, beneficiaries (17.04 percent) maintain amount of loan as working capital for agriculture and business purposes in the rural areas of state. (16.30 percent) beneficiaries used for purchasing of agriculture equipment, seven beneficiaries purchase the animals, six beneficiaries purchase the plant, 3 beneficiaries used the loan amount for purchase land & construction of building, one beneficiary construct the house with the loan. There are five beneficiaries who state that they utilised their loan amount for all the above mention purpose in the rural areas of the state. And also 3 beneficiaries used their loan money on another social purpose i.e marriage, education of children etc. in the rural areas of the state.

TABLE 14: EFFECT OF LOAN

EFFECT		Frequency	%age
a.	Increase the productivity of agriculture	22	12.43
b.	Increase the working capital	43	24.29
c.	Increase the agriculture income	66	37.29
d.	Increase in sales and profit	19	10.73
e.	Increase in production capacity	10	5.65
f.	Improve business efficiency	3	1.69
g.	Improve social status	5	2.82
h.	No Effect of loan	9	5.08
Total		**177**	**100**
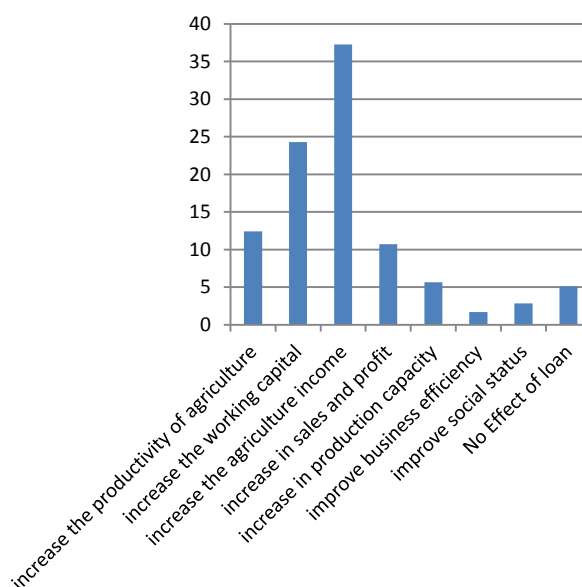
Source: Primary Survey

(N = 177; sample size increase due to multiple response by beneficiaries)

The borrowers have taken financial assistance from Himachal Pradesh Gramin Bank for different purpose to improve their economic condition and they have utilized the assistance mainly for productive purposes. It is significant to study the effect of the financial assistance on their economic situation. The break-up of the beneficiaries on the basis of effect of these loans on the beneficiaries is shown in Table 14. It is clear from the table that, the most significant effect of financial assistance has increase in the agriculture income. It is evident from the fact that 66 beneficiaries accounting 37.29 percent of total pointed out that the financial assistance has been useful in increasing their agriculture income and (12.43 percent) beneficiaries replied that their agriculture productivity is increase. The next effect of loan that working capital has been increase for productivity of agriculture and business purposes as beneficiaries accounting (24.19 percent)

of total beneficiaries reported that their working capital have been increased after getting loan taken from by Himachal Pradesh Garmin bank. (10.73 percent) beneficiaries state that their sales and profit of business are increased after utilising financial assistance. However, 9 beneficiaries (5.08 percent) state that they have no any effect of financial assistance from Himachal Pradesh Gramin Bank. In addition, these loans also proved useful in increasing, the agriculture capacity productivity, improve quality, business efficiency and improve the social status in the rural area of the state. These loans proved to be useful all beneficiaries improve their economic condition.

TABLE 15: EXTENT OF SATISFACTION

Statement	SS	S	BS	D	SD	Total
a. Increase in your income after utilisation loan	26 (20.8)	45 (**36.0**)	44 (35.2)	8 (6.4)	2 (1.6)	125
b. Increase in your saving is increase after utilisation of loan	26 (20.8)	47 (**37.6**)	43 (34.4)	8 (6.4)	1 (0.8)	125
c. Increase in your investment after utilisation of loan	35 (28.0)	14 (11.2)	65 (**52.0**)	9 (7.2)	2 (1.6)	125
d. Increase employment generation in rural areas	66 (**52.8**)	20 (16.0)	38 (30.4)	0 (0)	1 (0.8)	125
e. Change in social life style of rural areas	27 (21.6)	62 (**49.6**)	35 (28.0)	0 (0)	1 (0.8)	125
f. Help in eliminating the poverty in rural	54 (**43.2**)	30 (24.0)	37 (29.6)	3 (2.4)	1 (0.8)	125
Total						

Source: Primary Survey

(Figure shown in brackets is in percentage)

Above table depicts the extent of satisfaction level of beneficiary's social and economic status after utilising the loan in the rural areas of the state. Table shows that 45 beneficiaries (36 percent) are satisfied with their change in income after utilisation of loan, and 26 (20.8 percent) beneficiaries revealed strongly satisfied by their increase in income. However, 44 beneficiaries (35.2 percent) found below satisfaction level of increase in income by utilising the loan. In addition, 8 beneficiaries (6.4 percent) are found dissatisfied and 2 beneficiaries found strongly dissatisfied with the impact of utilisation of loan on income of the beneficiaries. Similarly impact of loan revealed on saving of the beneficiaries by 47 (37.6 percent) are satisfied and 26 (20.8 percent) found strongly satisfied with their level of saving has been significantly increase. However, majority 65 beneficiaries (52 percent) are found below satisfaction in the case of investment and it is revealed that investment is increased marginally in the rural areas but not up to marks, therefore there should be decrease the interest rate on loan for business purpose in the rural areas. Furthermore, table depict that 66 beneficiaries (52.8 percent) strongly recommend that there is increase in employment, and 54 beneficiaries (43.2 percent) also strongly recommend that bank play vital role for eliminating the poverty in the rural areas. And 62 beneficiaries (49.6 percent) also state that social life style of rural areas significantly improved due to the expansion of branches in the rural areas of the state.

CONCLUSION

Study concluded that large no of rural people take loan for agriculture and horticulture through KCC scheme in the rural area and rural livelihood living their life with very low income and main occupation is agriculture, horticulture and small scale industries in the rural areas. Present study revealed the financial assistance is very essential variable for the development of rural area and bank can play significant role in enhancing the credit facility to rural poor, small and marginal farmers, artisans and also help the development of micro and small scale industries in the rural area of the state. In this present study large number of rural borrower's state that their income & saving is increase due to utilisation of credit but not up to the mark, In addition investment in rural area is very low till yet. Therefore, study suggests that there is need to be increase the awareness and education in rural area about efficacy of the financial assistance for the rural people to enhance more credit facility among the rural masses.

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IMAGE RETRIEVAL USING SHOT BOUNDARY DETECTION AND KEY FRAME EXTRACTION BASED TECHNIQUE FOR VIDEO SUMMARIZATION

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ABSTRACT

A browsing facility that provides an information oriented summary for selection of actual content is a necessity. This has lead to an increasing demand of efficient techniques to store, retrieve, index and summarize the video content. In general, management of such activities over large collections of video requires knowledge of the "content" of the video. A video thus contains multimodal information like speech, audio, text and picture information. The pictorial information in video is considered to be the series of frames which are images, sequential over specific speed to make it as video. Further, a video can be processed with the objective of extracting the information about the content conveyed in it. The algorithms developed for this purpose, referred as "video content analysis" algorithms. The definition of "content" is highly application dependent but there are a number of commonalities in the applications of content analysis. This increased demand for intelligent processing and analysis of multimedia information has led to the development of different approaches for intelligent video management.

KEYWORDS

HistogramCalculation, Keyframes, Sufficient Content ,TREC VID dataset ,Video Analysis.

1. INTRODUCTION

The important issues in the field of video summarization are **Video Analysis, Video representation, video browsing and Video Retrieval.** Video analysis is the basis for later video processing. It includes **shot boundary detection** and **key frame extraction** *as the* **important mechanisms.** Considering that each video frame is a 2D object and the temporal axis makes up the third dimension, a video stream spans a 3D space. Video representation is the mapping from the 3D space to the 2D view screen. Different mapping functions characterize different video representation techniques like representation based on sequential key frames, representation based on groups, representation based on scenes. Video browsing and retrieval are the two ultimate goals of a video access system and they are closely related to video analysis and representation. Video retrieval is concerned with how to return similar video clips (or scenes, shots, and frames) to a user given a video query. There are two major categories of video retrieval. One is to first extract key frames from the video data, then use image retrieval techniques to obtain the video data *indirectly*. Although easy to implement, it has the obvious problem of losing the temporal dimension. The other technique incorporates motion information (sometimes object tracking) into the retrieval process. Although this is a better technique, it requires the computationally expensive task of motion analysis. If object trajectories are to be supported, then this becomes more difficult.

Key Frames are the still images that can summarize the video in a rapid and very compact way so that the users can grasp the overall video content more quickly than by watching a set of video sequences. A shot detection based key frame selection will yield a summary that maintains temporal order but at the cost of increased redundancy. A clustering approach to video summarization results in a set of key frames which may not preserve temporal order but eliminates redundancy. The significant challenge for key frame-based video summarization is to devise methods for selecting key frames that represent the essence of the video content and not just form a random collection of frames.

Thus the importance of key frame extraction in the video summarization has motivated to take up the task of devising a methodology for efficient extraction of the key frames without losing the information content of the original video.

1.1 VIDEO SUMMARIZATION

One of the major applications of key frame extraction is *Video summarization*. Video summarization is a novel technology of content based video compression, which efficiently finds significant information from video and eliminates redundant data. The key frames should resultantly abstract the original video without omitting the important information.

For an application like video summarization, the frames of interest can be extracted based on one or more statistical features which are then used to represent the summary of the entire video. The result of generating such video summaries can range from just a collection of key frames representing the essence of a video to generating a video clip summarizing the essential content of the video by keeping temporal order intact. The simplest of the techniques for this type of temporal video summary is variable speed fast forwarding using time compression, which is to play the full video at a higher speed but still be intelligible to the viewer about the video contents. A second popular technique for generating temporal video summary is the video skimming technique which is also called gisting, where video summaries are generated by incorporating both audio and video information from the source video and played using a browsing tool. This type of summary generation is enabled by using key frame-based approach. The summaries vary from a static pictorial overview of the video content to a collection that maintains temporal order and therefore, conveys time sequenced content.

2. LITERATURE SURVEY

2.1 OVERVIEW

The problem of high quality key frame extraction and video summarization is addressed in [1]. The key frames are derived from QR decomposition where in key frame extraction system needs two presumptions. First one of which is a criterion to measure the video dynamicity for detecting the number of key frames in each shot needed to produce a summary with a predefined length. The second presumption is an accurate method that detects the independent key frames within shots.

A novel framework for video summarization was proposed in [5] in which multiple index features obtained from video frames and were combined to describe the frame difference between consecutive frames. It was observed that certain frame difference features have more influence in generating a representative frame difference measure. Moreover, some features are more relevant than others in different video genres. Therefore, for each video genre, the weights of different features were pre-determined at training phase by indirectly utilizing the Relevance Feedback Mechanism. The idea of key frames extraction from single shots in video sequences is presented in [3]. The method was implemented by an efficient two-step algorithm, which is classified neither to clustering nor to temporal variations based techniques. In the first step, an MST (minimal spanning tree) graph is constructed, where each node is associated to a single frame of the shot. In the second step, key frames were extracted based on the principle of their maximum spread. The number of the selected key frames was controlled by an adaptively defined threshold, while the validity of the results was evaluated by the fidelity measure.

A method for video summarization using a graph theoretical approach was proposed in [7] .This thesis aims comparative analysis of the state of the art shot boundary detection algorithms. The major methods that have been used for shot boundary detection such as pixel intensity based, histogram-based, edge-based, and motion vectors based, were implemented and analyzed. A recent method which utilizes "graph partition model" together with the support vector machine classifier as a shot boundary detection algorithm was also implemented and analyzed. Moreover, a novel graph theoretic concept, "dominant sets", was also successfully applied to the shot boundary detection problem as a contribution to the solution domain.

Edge-based approaches measure the similarity or dissimilarity as change in intensity of edges was presented in [4] gave a method of extracting the key frames by Accumulated Histogram Intersection Measure. It stated that, first extract key frames by matching of DC image sequence constructed from the MPEG video sequence. Then using the region segmentation-based projective histogram and its moments as database indices for video retrieval. Results clearly validated and dominated the method and that in conjunction with other indexing techniques, such as color, can provide a power lid framework for video indexing and retrieval.

Efficient key frame extraction, using local semantics in form of a region thesaurus specifically, works on certain MPEG-7 color and texture features are locally extracted from key frame regions. Then, using a hierarchical clustering approach a local region vocabulary is constructed to facilitate the description of each frame in terms of higher semantic features. The mechanism that was proposed in [6] presents that thesaurus consists of the most common region types that are encountered within the video shot, along with their synonyms. These region types carry semantic information. Each keyframe was represented by a vector consisting of the degrees of confidence of the existence of all region types within this shot. Using this keyframe representation, the most representative keyframe was then selected for each shot. Where a single keyframe was not adequate, using the same algorithm and exploiting the presence of the region types of the visual thesaurus, more keyframes are extracted.

Key Frames can be extracted by analyzing the similarity between two consecutive frames of a video sequence, the algorithm determines the complexity of the sequence in terms of changes in the visual content expressed by different frame descriptor features. This methodology has been proposed in the paper [11] which escapes the complexity of existing methods based, for example, on clustering or optimization strategies, dynamically and rapidly selects a variable number of key frames within each sequence. The key frames were extracted by detecting curvature points within the curve of the cumulative frame differences. Another advantage was that it can extract the key frames on the fly: curvature points can be determined while computing the frame differences and the key frames can be extracted as soon as a second high curvature point has been detected.

A Method of Independent Component Analysis (ICA) [9] suggests that projecting video frames from illumination-invariant raw feature space into low dimensional ICA subspace, each video frame is represented by a two-dimensional compact feature vector. An iterative clustering algorithm based on adaptive thresholding is developed to detect cuts and gradual transitions simultaneously in ICA subspace. An iterative clustering algorithm based on adaptive thresholding is developed to detect cuts and gradual transitions simultaneously in ICA subspace. Experimental results successfully validate the new method and show that it can effectively detect both abrupt transitions and gradual transitions.

An algorithm that concentrates mainly on the athletics video was given in [10]. It proposed a simple but effective method to extract key frames from an athletic sport sequence. The extracted features are the start and finish race frame and the type of competition. Specifically they adopted camera motion detection technique for both race detection and features extraction. An effective rule has been developed for segmenting start/race/finish from motion vector sequences. Proposed algorithm is based on motion vector analysis, and camera motion detection.

An innovative approach to the selection of representative frames of a video shot for video summarization by analyzing the differences between two consecutive frames of a video sequence [8]. The algorithm determined the complexity of the sequence in terms of visual content changes. Three descriptors were used to express the frame's visual content: a color histogram, wavelet statistics and an edge direction histogram. Similarity measures were computed for each descriptor and combined to form a frame difference measure. The use of multiple descriptors provides a more precise representation, capturing even small variations in the frame sequence. This method can dynamically and rapidly select a variable number of key frames within each shot, and does not exhibit the complexity of existing methods based on clustering algorithm strategies.

The three popular approaches to shot boundary detection, namely statistical difference, histogram comparison, and pixel difference were compared in [15]. Instead of using common performance measure as recall and precision, it was proposed that new performance measure as Retrieval Success Index (RSI) was introduced.

A review of certain basic information extraction operations that can be performed on video is presented in [13] [14]. These operations were particularly useful as a foundation for further semantic processing. Specifically, the review focuses on shot boundary detection and condensed video representation (also called summarization and abstraction). Shot boundary detection is the complete segmentation of a video into continuously imaged temporal video segments. Condensed video representation is the extraction of video frames or short clips that are semantically representative of the corresponding video. Both tasks are very significant for the organization of video data into more manageable forms.

3. KEY FRAME EXTRACTION

The fast evolution of the digital video technology has opened new areas of research. The most important aspect will be to develop algorithms to perform video cataloguing, indexing and retrieval. The basic step is to find a way for video abstraction, as this will help us more for browsing a large set of video data with sufficient content representation. One such basic step in video abstraction is key - frame extraction. Hence key frame extraction has been an important technique in video summarization, browsing, searching and understanding.

A video sequence normally contains a large number of frames. In order to ensure that humans do not perceive any discontinuity in the video stream, a frame rate of at least 25fps is required, that is, 90,000 images for one hour of video content. This sheer volume of video data is a barrier to many practical applications, and therefore, there is a strong demand for a mechanism that allows the user to gain certain perspectives of a video document without watching/addressing the video in its entirety. This mechanism is termed video abstracting.

There are two basic forms of video abstracts:

- **Key-frames:** These are also called representative frames, R-frames, still-image abstracts or static storyboard and a set consists of a collection of salient images extracted from the underlying video source. Hence, the keyframe set R is defined as follows:

$$\mathcal{R} = \mathcal{A}_{Keyframe}(\mathbf{V}) = \{f_{r_1}, f_{r_2}, \ldots, f_{r_\mathbf{k}}\}, \tag{3.1}$$

Where A keyframe denotes the keyframe extraction procedure.

- **Video skimming:** It is method to extract the significant audio and video information and create a "video skim" which represents a very short synopsis of the original. The goal of video skim is to show the utility of integrating language and image understanding techniques for video skimming by extraction of significant information, such as specific objects, audio keywords and relevant video structure. This is also called a moving-image abstract, moving storyboard, or summary sequence. This type of abstract consists of a collection of video segments (and corresponding audio) extracted from the original video. These segments are joined by either a cut or a gradual effect (e.g., fades, dissolve, wipe). It is itself a video clip, but of significantly shorter duration. One popular kind of video skim in practice is the movie trailer. The video skim K is defined as follows:

$$\mathcal{K} = \mathcal{A}_{Skim}(\mathbf{V}) = \mathbf{E}_{i_1} \odot \mathbf{E}_{i_2} \odot \ldots \odot \mathbf{E}_{i_\mathbf{k}}, \tag{3.2}$$

Where A_{Skim} denotes the skim generation procedure. Ei $\sqsubseteq$ V is the ith excerpt to be included in the skim, and $\odot$ is the excerpt assembly and integration operation (e.g., cut, fade, dissolve, wipe). Note that the preceding representation is applicable to the video stream only, whereas the audio stream of a video skim can be re-sequenced, edited, and does not necessarily synchronize with the original video.

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FIGURE 3.1: ATTRIBUTES OF KEYFRAME EXTRACTION TECHNIQUES
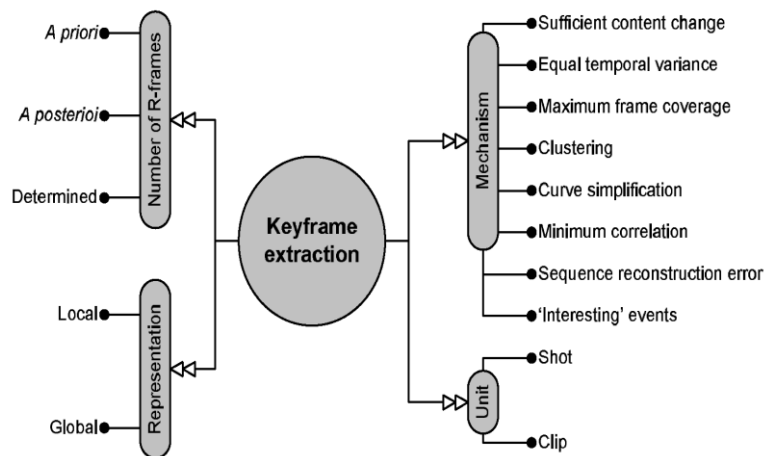
One advantage of a video skim over a keyframe set is the ability to include audio and motion elements that potentially enhance both the expressiveness and information of the abstract. In addition, it is often more entertaining and interesting to watch a skim than a slide show of keyframes. On the other hand, since they are not restricted by any timing or synchronization issues, once keyframes are extracted, there are further possibilities of organizing them for browsing and navigation purposes, rather than the strict sequential display of video skims. Hence keyframes are used in this project because of the easy of extraction and organizing the keyframes.

Note that although video skims and keyframes are often generated differently, these two forms of video abstract can be transformed from one to the other. Video skims can be created from keyframes by joining fixed-size segments, sub shots, or the whole shots that enclose them.

3.1   KEYFRAMES

Keyframes are a set of salient images extracted from video sequences. They provide a simple yet effective way of summarizing the content of videos for browsing and retrieval and are also widely used in video abstraction due to their compactness. Much research has been conducted in the past few years in understanding the problem of key-frame extraction and developing effective algorithms.

Although simple and computationally efficient sampling-based methods may produce no keyframes for a shot, yet semantically producing too many keyframes with identical content to represent a long static segment thus failing to effectively represent the actual video content. The review of keyframe extraction techniques discussed will focus only on techniques that take into account the underlying dynamics, to different degrees and from varying viewpoints, of the video sequence. The discussion of fundamental aspects of the current approaches in keyframe extraction, as depicted in Figure 3.1. These aspects are: the size of the keyframe set, the base unit, representation scope, the underlying computational mechanisms, and visualization method for extracted keyframes. For each aspect, a categorization is provided of how they are addressed in existing works and describe their pros and cons.

THE SIZE OF THE KEYFRAME SET

There are different options for determining the number of keyframes in an automatic keyframe extraction process, and they strongly shape the underlying formulation of the optimal keyframe set. The size of the keyframe set can be fixed as a known priori, left as an unknown posteriori, or determined internally within the abstraction process. Most of the techniques only offer one option for the size of keyframe set. However, if the algorithm produces a number of keyframes progressively, two options are available: It can stop when the number of keyframes reaches a priori value or when certain criteria are satisfied (i.e., a posteriori). Further for applications where efficient utilization of network bandwidth and storage is crucial, the size of keyframe set should be measured by the total number of bits required to code the summary with a given coding strategy.

- **A Priori:** The number of keyframes is decided beforehand and given as a constraint to the extraction algorithm. It can be assigned as a specific number or ratio over the length of the video that may vary according to user knowledge of the video content. Also called rate constraint keyframe extraction, this approach is suitable and often required in mobile device systems where available resources are limited. For these systems the number of keyframes is distributed differently, depending on the transmission bandwidth, storage capacity, or display size of the receiving terminal. A special yet common case is when one keyframe is selected per shot, which is often the first frame, middle frame, or that frame closest to the average content of the shot. This technique has a disadvantage in that it does not ensure that all important segments in a video contain at least one keyframe.

Ideally, the keyframe extraction problem with a priori size k can be formulated as an optimization problem of finding the frame set R = { fi1 , fi2 , . . . , fik} that is differs least from the video sequence with respect to a certain summarization perspective:

$$\{r1, r2, . . . , rk\} = \arg\min\ \{D(R, \mathbf{V}, \rho)\ |\ 1 \le ri \le \mathbf{n}\} \qquad (3.3)$$

Where n is the number of frames in the original video sequence, ρ is the summarization perspective that the user is interested in, and D is a dissimilarity measure.

Most current keyframe extraction techniques have ρ as "visual coverage," which aims to cover as much visual content with as few frames as possible; however, ρ can also be the number of objects, number of faces, etc. It can also represent a viewpoint on what constitutes the optimal keyframe set, and shape the underlying computational solution.

- **A Posteriori:** In this approach, user does not know the number of extracted keyframes until the process finishes. The number of keyframes is often determined by the level of visual change, itself. More keyframes are needed to represent a video sequence with a lot of action and movements than required for a static one. However, an excessively large number of keyframes may be produced for highly dynamic scenes, causing inconvenience during interactive tasks. The formulation of the keyframe extraction problem with no specified size requires a dissimilarity tolerance ε, also called the fidelity level. This can generally be formulated as

$$\{r1, r2, rk\} = \arg\min\ \{k\,|\,D(R, \mathbf{V}, \rho) < ε, 1 \le ri \le \mathbf{n}\} \qquad (3.4)$$

Technically, with a significant increase in computational cost, this approach can be converted in to the first approach (number of keyframes is a priori) by iteratively reducing the fidelity level until the number of keyframes produced approximates a predefined value, and vice versa.

- **Determined:** This is in essence the a posteriori approach; however, there is need to acknowledge the approaches that attempt to determine the appropriate number of keyframes before the full extraction is executed. For example, with cluster-based methods, cluster validation can be performed to determine the number of clusters before or within the actual clustering process on the other hand, consider the number of keyframes allocated for each shot as being proportional to its accumulative content change.

REPRESENTATION SCOPE OF INDIVIDUAL KEYFRAMES

This aspect of the keyframe extraction algorithm relates to whether an extracted keyframe is representative of its local neighborhood segment or represents noncontiguous segments of a video clips. The other approach tends to produce a smaller keyframe set, while the first preserves the temporal visual progression, which may be important for understanding the action and events in a summary.

UNDERLYING COMPUTATIONAL MECHANISMS

The underlying computational mechanisms for keyframe extraction can be categorized into eight somewhat overlapping classes, as depicted in Figure 3.1. The same are briefly discussed below.

(i) Sufficient Content Change: This method proceeds sequentially and only requires knowledge about the video sequence until the current temporal position, selecting a frame as the keyframe only if its visual content significantly differs from previously extracted keyframes as shown in Figure 3.2. In the other words, in its basic form, the sufficient content change method selects the next keyframe $f_{r_{i+1}}$ based on the most recently selected keyframe f_{r_i} as follows:

$$fr_{i+1} = \arg\min \{C(ft, fri) > \varepsilon, i < t \le \mathbf{n}\} \qquad (3.5)$$

with the first frame of the base unit, for example, the shot, often selected as the first keyframe, namely, $r_1 = 1$.

FIGURE 3.2: ILLUSTRATION OF THE SUFFICIENT CONTENT CHANGE METHOD
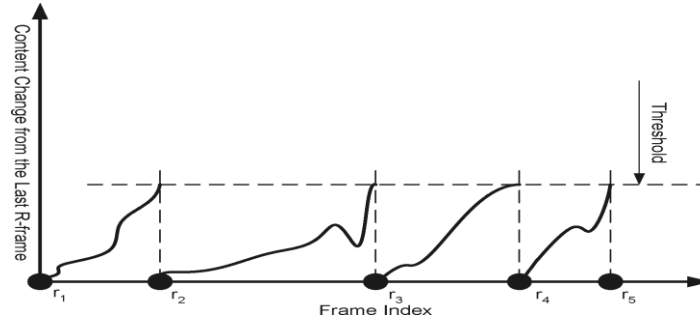
(ii) Equal Temporal Variance: This is somewhat a variant of the sufficient content change method, which requires that the number of keyframes is specified a priori, and assumes that a good keyframe set should have individual keyframes represent video segments $(b_i, b_{i+1}-1)$ of equal temporal variance. In this approach, the determination of $\{b_i\}$ and $\{r_i\}$ is performed separately in two steps. Theoretically, segment boundaries $\{b_i\}$ are selected so that

$$V(b_1, b_2) = V(b_2, b_3) = \cdots = V(b_i, b_{i+1}) \qquad (3.6)$$

Where $V(b_i, b_{i+1})$ denotes the temporal variance of the segment (b_i, b_{i+1-1}), which has f_{r_i} (selected keyframe) as its representative frame. Since the exact equality of temporal variance is often not achieved, thus it is an optimization problem.

In general, the equal temporal variance method is more computationally expensive than the sufficient content change method. However, the produced keyframe set is globally "optimal" and independent of any processing order.

(iii) Maximum Frame Coverage: It is referred to as the fidelity based approach, this method attempts to use the representation coverage (i.e., the list of frames that a given frame can represent) of individual frames in the sequence as the starting point. Let $\mathbf{C}_i(\varepsilon)$ denote the set of frames in $\mathbf{V}$ that can use f_i as their representative with respect to a tolerance or fidelity value ε. Under this framework, the optimal set of keyframes from $\mathbf{V}$ with no rate constraint can be extracted as

$$\{r1, r2, r\mathbf{k}\} = \arg\min \{\mathbf{k} | \mathbf{C}r1(\varepsilon) \cup \mathbf{C}r2(\varepsilon) \cup \cdots \cup \mathbf{C}rk(\varepsilon) = \mathbf{V}\} \qquad (3.7)$$

When a given number of keyframes is specified as a constraint, the problem can be interpreted as either finding the minimum fidelity value ε such that all frames can be covered by at least one keyframe or finding the set of frames that can represent as many frames as possible.

$$\{r1, r2, r\mathbf{k}\} = \arg\max \{|\mathbf{C}r1(\varepsilon) \cup \mathbf{C}r2(\varepsilon) \cup \cdots \cup \mathbf{C}rk(\varepsilon)|\} \qquad (3.8)$$

Two crucial components in this approach are the determination of coverage for a frame and the optimization procedure. The advantage of the maximum frame coverage formulation is that it does not require the representation coverage of a frame to be a contiguous segment as in the sufficient content change and equal temporal variance methods, and therefore, can generate a more concise keyframe set. However, the dissimilarity needs to be computed on all frame pairs, making it computationally more expensive, and thus unsuitable for real-time and/or online applications. It also requires a true visual similarity metric to fully realize its optimality.

(iv) Clustering: This approach treats video frames as points in the feature space (e.g., color histogram) and works on the assumption that the representative points of clusters formed in this space can be used as keyframes for the entire video sequence. It does not rely on any explicit modeling, while making use of generic techniques developed for data clustering. Clustering can be performed as clip-based or shot-based, and often involves the four following steps. Existing methods are distinguished based on how these steps are implemented:

- Preprocessing the data - Preprocessing the input data is aimed at improving the effectiveness and efficiency of the clustering process.
- Clustering the data - Standard clustering techniques or their domain-dependent variants now can be applied to the data to identify potential clusters.
- Filtering clusters - Since clustering outputs may be noisy and/or the cluster itself not sufficiently significant, keyframes are not assigned to all clusters.
- Extracting the representative points of each cluster - The most common and intuitive solution is to select that point closest to the cluster centroid as the representative point of the cluster, which eventually forms the keyframe set of the video sequence

(v) Minimum Correlation Among Keyframe: Techniques in this class often deal with the rate constrained keyframe extraction problem and work on the basis that the keyframe set should have minimal correlation among its elements (sometimes only the correlation among successive elements is considered). It aims to select frames that are dissimilar to each other. The optimal extraction of keyframes via the minimal correlation criterion can be formulated as

$$\{r1, r2, r\mathbf{k}\} = \arg\min \{Carr(fr1, fr2, \ldots, fo r\mathbf{k})\} \qquad (3.9)$$

Where, Corr (.) is a correlation measure.

(vi) Sequence Reconstruction Error (SRE): This approach is proposed in Liu and Kender, and is based on a metric called the Shot Reconstruction Degree (SRE) score. This measures the capability of the keyframe set for reconstructing the original video sequence/shot. It is useful when the number of keyframes is set as a priori and the temporal progression is crucial to the designated application. Assume that a frame interpolation function $I(t, R)$ that calculate the full image or some characterizing feature at time t in the video sequence from the keyframe set. The SRE score $\varepsilon(\mathbf{V}, R)$ of the keyframe set is defined as

$$\mathcal{E}(\mathbf{V}, \mathcal{R}) = \sum_{i=1}^{\mathbf{n}} \mathcal{D}(f_i, \mathcal{I}(i, \mathcal{R})), \qquad (3.8)$$

Where D (.) computes the difference between two image frames.

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FIGURE 3.3: ILLUSTRATION OF A SEQUENCE RECONSTRUCTION ERROR
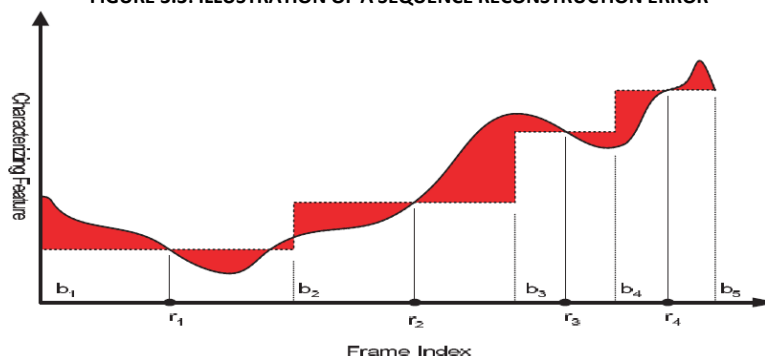
(vii) Curve Simplification: The curve simplification approach is related to clustering-based methods in that it also treats each frame in the video sequence as a point in a multidimensional feature space. However, rather than looking for clusters, this approach searches for a set of points such that removal of the remaining points least changes the shape of the curve connecting all points through their temporal ordering. In this respect, it is thus related to sequence reconstruction error methods. The difference is that points on the curve are not necessarily equally spaced by the frame index and an explicit modeling of the error between the final curve and original frame trajectory is not required. Instead, this approach uses standard curve simplification algorithms such as the binary curve splitting algorithm and discrete contour evolution

(viii) "Interesting" Events: In contrast to the preceding approaches, which focus on maximizing the extent and balance of visual coverage of the keyframe set, methods based on interesting events attempt to identify frames that are semantically important. Most work in this category assumes an association between the "interestingness" of a frame, and the motion patterns around the frame, as well as its content characteristics (e.g., containing human faces or having high spatial complexity).

5. EXPERIMENTATION AND RESULTS

The software tool used for the proposed work is MATLAB 7.11 version. MATLAB is a programming environment for algorithm development, data analysis, visualization, and numerical computation. The algorithm has been implemented on *windows 7* operating system installed on a machine with 2 Gb of primary memory and Intel I_3 second generation processor. The proposed model accepts input video in the ".avi" or ".mpg" format size ranging from 3 to 10 Mb. 3GP video converter software is used to convert other files from you tube (".flv", ".Mp4") to ".avi" format. The experimental dataset used in this project are from the youtube action dataset ,the Open Video Project and some are from trecvid dataset. Since the multimedia information retrieval community does not yet have more number of standard collections of video dataset to be used for research purposes other than TRECVID, which needs more copyright formalities for download. The purpose of the Open Video Project is to collect and make available a repository of digitized video content for the digital video, multimedia retrieval, digital library, and other research communities.

AN OVERVIEW OF IMPLEMENTATION IS GIVEN BELOW

1. The input video will be converted with the help of a script *vid2frm*.
2.   The script in turn calls a function *copyFrames* and the converted frames will be stored into a specified folder. Further processing needs the frames from this location.
3. The script *HistogramCalculation* is called which will accept the size of the video segment in terms of frames from the user. In the first part of the script, the frames will be divided into number of segments or groups based on the size entered.
4. In the second part, Histogram differences will be calculated and key frames are selected from individual segments, and stored in a common place for further processing.
5. The above script calls a function called *substr* in order to get the substring of a string for processing.
6. And the same script will calculate the compact ratio for the generated key frame set

5.1 OVERVIEW OF VIDEO SAMPLES

We have used different kind of videos for testing and analysis of the algorithm. For example sports videos from youtube action, open videos downloaded from Open Video Project clips, Historical clips downloaded from TREC VID dataset. But more emphasis is given to the sports clips.

The descriptions about some of the sample video clips used for the testing are given below.

 Sports video (.avi file)

FIGURE 5.1: TEST (5).AVI

The video clip which is shown above demonstrates a sports event in which a sportsman was injured and he was given a first aid in the ground itself. Then the game was continued normally. The size of the input video file is 1.13 Mb. The duration of the file is 36 seconds at the frame rate of 25 frames/second. For the input video Test (5).avi file there are totally 908 frames extracted. Corresponding to the input file 58 key frames was extracted. The adaptive thresholding mechanism is described in the figure 5.2. The following chart demonstrates that, there are more than 40% of the frame differences values are above the threshold. Hence the value of threshold is adjusted so that the number of key frames that fall above the threshold will not exceed 10% of the group size. The mechanism is called adaptive thresholding and depicted in the chart 5.2.

CHART 5.1: HISTOGRAM DIFFERENCE V/S THRESHOLD
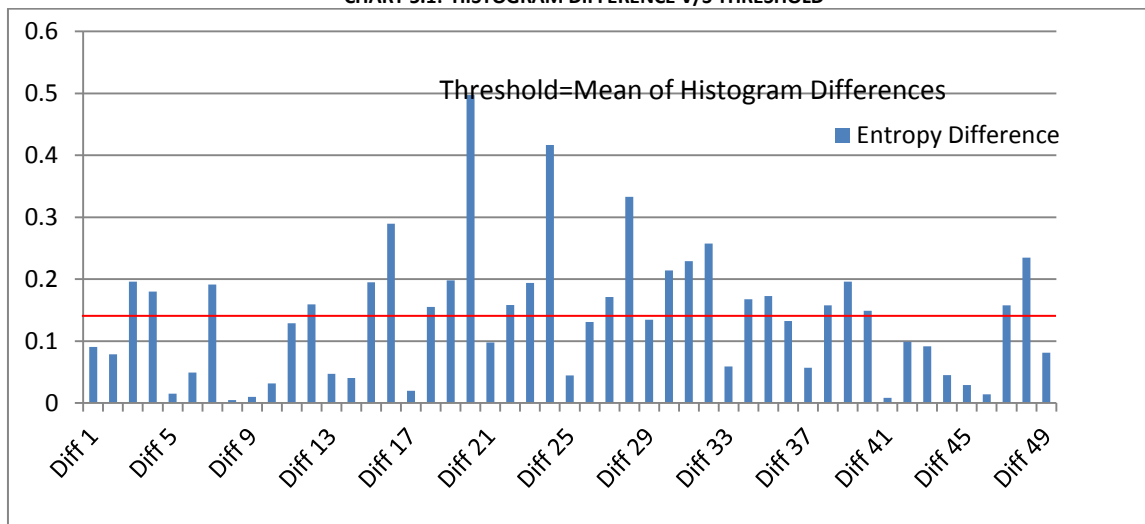
In the following chart it is demonstrated that the value of threshold was adjusted in number of iterations by increasing the threshold by a scalar factor equal to standard deviation.

CHART 5.2: HISTOGRAM DIFFERENCE V/S ADAPTIVE THRESHOLD
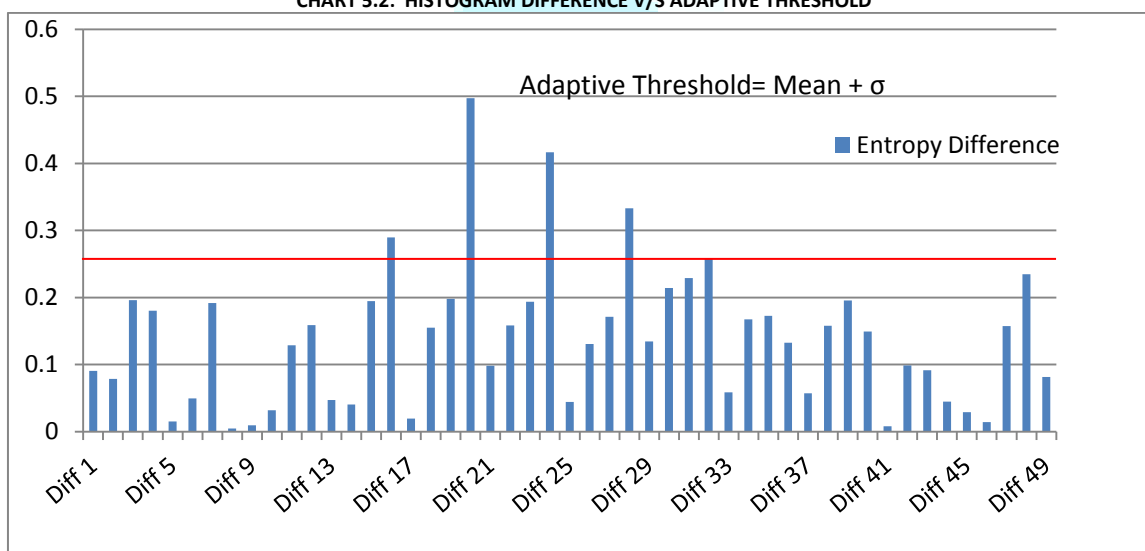
Some of the sample key frames extracted by the algorithm are listed below:

FIGURE 5.2 SAMPLE KEY FRAMES OF TEST (5).AV

CONCLUSION AND FUTURE SCOPE

The objective of the proposed work an attempt to generate a key frame set of a large video by segmenting it into semantic shots. The key frame extraction technique relies on the fact that there will be considerable changes in the information content of the frames in the video sequence. The mechanism has to be supported by global or adaptive thresholding of discontinuity measures between consecutive frames. The strategy of key frame extraction will decide the representativeness of every shot into the key frame set generated. The proposed method has been tested on different video segments of different genres like sports, add clips, educational, historical and news clips.

The performance of the video summarization algorithm is evaluated by the criteria like compression ratio and fidelity. Finally the quality of the key frame set is evaluated by representative observations by a group of human observers with the help of criteria informativeness.

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IMPACT OF WORK LIFE BALANCE ON MORALE, SATISFACTION AND PERFORMANCE OF THE DOCTORS IN URBAN COMMUNITY

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ABSTRACT

With increasing demand in the personal life, family life vis-à-vis professional life of the Doctors seems to affect their work-life balance significantly and is linked to the lower quality of care. The core purpose of this study is to analyze the impact of work life balance (work life imbalance) on satisfaction, morale and performance of doctors working with public and private hospitals and clinics. The data were collected keeping in consideration features such as gender, age, experience, specialization, marital status, no. of children and organization type. A sample of 200 allopathic doctors is taken for the purpose of study to be collected from Indore City. The selected method for sampling in this research is non probability convenience sampling method. Data collected for the purpose of the study is of primary type. Primary data were collected through standardized self designed questionnaire. The data was analyzed by using SPSS, test applied was correlation. The result of the study reveals that work life imbalance has negative impact on satisfaction, morale and performance of doctors. Further the researcher also suggested measures to improve the work life balance of doctors.

KEYWORDS
Work Life Balance, Morale, Satisfaction and Performance.

1 INTRODUCTION
1.1 WORK
Work is the activity or effort that we put to produce or accomplish something. We work to put food on our table and roofs on our hands. We work toward the prospect of children in college and ourselves. We work because we have to. People usually understand the world of work as it related to making money. However many reasons are often cited for wanting to work, besides money which includes productivity, ambition, esteem and contribution to society.

1.2 LIFE
Life is more than just our age count. It is a college of our happiness, sadness, celebrations and peacefulness to name a few work is the part of life. Life is broadly related to certain aspects like ambition, acquisition, achievements etc., which may promote stress while part of life should be taken as stress releasing agent also.

1.3 WORK-LIFE BALANCE
The expression Work-Life balance was first used in the late 1970s to describe the balance between an individual's work and personal life. Work-life balance is a broad concept including proper prioritizing between "work" (career and ambition) on one hand and "life" (pleasure, leisure, family and spiritual development) on the other.
The term 'work-life balance' describes a person's ability to effectively manage their paid work commitments with their career goals, personal, community and cultural responsibilities, interests and obligations.
There are three major aspects of work/life balance:

When the involvement in work is more, it increases the satisfaction level. As when we involve ourselves, we feel empowerment. We start owning the responsibility. From responsibility, the authority flows. And when there is balance between authority and responsibility, one ought to receive the satisfaction.

1.4 WORK-LIFE IMBALANCE
Work-Life Imbalance occurs when the pressure from one role makes it difficult to comply with the demand of the other. This means that if individuals do not feel they have a good mix and integration of work and non work roles, they experience low balance in their personal and professional life of doctors.
Employees who experience increased stress due to imbalance in Work-Life and decreased perception of control over their work and non work demands are less productive, less committed to and satisfied with, their organization and more likely to be absent or leave the organization. Individuals experiencing interference between work and personal lives are also more significantly more likely to suffer from reduced psychological well-being and physical health.

1.5 EMPLOYEE SATISFACTION
Employee satisfaction is the terminology used to describe whether employees are happy and contented and fulfilling their desires and needs at work. Many measures contend that employee satisfaction is a factor in employee motivation, employee goal achievement, and positive employee morale in the workplace. It is defined as the extent to which employees are happy with their jobs and work environment.

1.6 EMPLOYEE MORALE
Employee morale describes the overall outlook, attitude, satisfaction, and confidence that employees feel at work. When employees are positive about their work environment and believe that they can meet their most important needs at work, employee morale is positive or high. If employees are negative and unhappy about their workplace and feel unappreciated and as if they cannot satisfy their goals and needs, employee morale is negative or low.

1.7 EMPLOYEE PERFORMANCE

Performance is defined as an act of performing; the carrying into execution or action; execution; achievement; accomplishment; representation by action; as, the performance of an undertaking of a duty (Brainy Quote). According to business dictionary "Job Performance is the work related activities expected of an employee and how well those activities were executed. Many business personnel directors assess the job performance of each employee on an annual or quarterly basis in order to help them identify suggested areas for improvement."

2. REVIEW OF LITERATURE

Roberta Maeran et.al (2013) studied the relationship between work-life balance and job satisfaction found that found that there is a moderate negative influence of work over family (work-family conflict), as the average value of this variable is only marginally significant. Instead, it can be noted to a more considerable extent the positive influence between work and family, and the perception that one's commitment in various areas has positive implications on other life spheres. Job satisfaction measured appears to be fairly high among respondents, and assumes a negative relationship with both work-family conflict and family-work conflict. The study reveals that Work-Family conflict negatively correlates with work-family enrichment, supportive supervision, and factors that affect job satisfaction. The negative impact of work on family is positively correlated with age, length of service, and to a lesser extent with the number of working hours.

Muhammadi Sabra Nadeem and Dr. Qaisar Abbas (2009) while studied on the Impact of Work Life Conflict on Job Satisfactions of Employees contended that job satisfaction is significantly negatively correlated with stress, work to family interference and family to work interference. However, the correlation of workload is positive and insignificant which shows that workload does not effect the job satisfaction of the employees in Pakistan. Job autonomy emerged as having a strong and clear correlation with job satisfaction, more autonomy in a job leads to higher job satisfaction among employees.

Liselotte N. Dyrbye et.al (2013) conducted a survey of U.S. Physicians and their partners regarding the impact of work–home conflict (WHC) found that greater work hours for physicians and their employed partners were independently associated with WHC. Physicians and partners who had experienced a recent WHC were more likely to have symptoms of burnout. The study reveals that WHC are prevalent among U.S. physicians and their employed partners. Long work-hours, younger age, female sex and work within an academic medical center increase the risk for WHC among physicians, while for partners, WHC appear to be driven in large part by work hours. These conflicts are strongly associated with distress and relationship dissatisfaction

K. S. Chandrasekar et.al (2013) found that there are some factors of work demand that interferes with the personal life which leads to an imbalance state, work-life balance is different based on gender and nature of jobs The study reveals that work life balance has a positive relationship with job satisfaction. The study concluded that an efficient Work life Balance helps an employee in improving their job satisfaction and productivity. The company should focus on providing efficient Work Life Balance policies and programs to ensure proper Work Life Balance which will help them to improve the employee productivity and also to control the attrition rate.

3. RATIONALE OF THE STUDY

Today, People are not only doing work for survival but also for personal satisfaction as well. If there is no balance between the persons working life and personal life, it will affect their performance and commitment towards the organization.

If the job is stressful, it will affect the personal life of people, because emotions are always going with them and if they are not able to control it, it will get affected in their behavior and ultimately having an impact on their personal life that leads to affect their concentration on work, level of commitment to the profession, the level of satisfaction, performance, productivity and the services which they provided to the society i.e. patient dissatisfaction with the care received, Doctors not meet at time, thus the quality of life of both the service provider and service taker is affected.

In this research study, the researcher would attempt to study the impact of work-life imbalance on the morale, satisfaction and performance with special reference to Allopathic Doctors working in Hospitals and Private Clinics in urban community as it has been observed in general that work-life imbalance is comparatively more amongst doctors in urban community. The personal life, family life vis-à-vis professional life of these Doctors seems to affect work-life balance significantly. In this back-drop it is considered that if some in-depth study is carried out and cause-effect relationship is established, perhaps it would definitely improve the scenario for the common causes of this segment and finally the society in general.

4. OBJECTIVE OF THE STUDY

The objective of this research is to study the impact of work life imbalance on the morale, satisfaction and performance of doctors and to suggest the measures to improve the work life balance of doctors.

4.1 RESEARCH QUESTIONS

- What is the relationship between the work life imbalance and morale of doctors?
- What is the relationship between the work life imbalance and satisfaction of the doctors?
- What is the relationship between the work life imbalance and performance of the doctors?

5. RESEARCH METHODOLOGY

The research is descriptive in nature. Sample of 200 allopathic doctors working with public and private hospitals and clinics have been taken for the purpose of study. The type of sampling method used for the collection of data is non probability convenience sampling method. The data used for the study is of primary type. Self Designed Standardized Questionnaire is used for the purpose of primary data collection. The reliability of the statements measuring the work life balance, satisfaction, morale and performance was determined by using Cronbach's Coefficient alpha is .820, .725, .729 and .710 respectively. Data were processed through SPSS and test applied was Pearson's correlation.

6. RESULTS AND DISCUSSION

6.1 Hypotheses 1: There is no significant impact of work life imbalance (WLB) and satisfaction of doctors.

TABLE NO. 1

		WLB	Satisfaction
WLB	**Pearson Correlation**	1	-.791[**]
	Sig. (2-tailed)		.000
	N	200	200
Satisfaction	**Pearson Correlation**	-.791[**]	1
	Sig. (2-tailed)	.000	
	N	200	200

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

Table No. 1 indicates that work life imbalance is inversely related with the satisfaction of the doctors. The result shows that there is a high degree negative correlation between the work life imbalance and satisfaction of doctors. Significance value 0.00 is less than 0.05 which shows that H1 is rejected that means there is a significant impact of work life imbalance on the satisfaction of doctors. From the correlation value it is clear that satisfaction of doctors increases with the decrease in imbalances in their personal and professional life. Better balance in work and life helps to improve the satisfaction of doctors.

6.2 Hypotheses 2: There is no significant impact of work life imbalance (WLB) on morale of doctors.

TABLE NO. 2

		WLB	Morale
WLB	**Pearson Correlation**	1	-.677[**]
	Sig. (2-tailed)		.000
	N	200	200
Morale	**Pearson Correlation**	-.677[**]	1
	Sig. (2-tailed)	.000	
	N	200	200

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

Table no. 2 shows the correlation relationship between the work-life imbalance and morale of doctors. There is a moderate degree negative correlation between work-life imbalance and morale of doctors and its value is -.677. This shows that morale of doctor's decreases with the increase in imbalances in their personal and professional life. P-value is 0.00 which is less than 0.05. Hence null hypotheses H2: There is no significant impact of Work Life Imbalance on Morale of doctors is rejected. Thus it is said that there is a significant impact of work life imbalances on the morale of doctors. The result shows that lower the imbalances in the work life of doctors higher will be the morale.

6.3 Hypotheses 3: There is no significant impact of work life imbalance (WLB) on the performance of Doctors.

TABLE NO. 3

		WLB	Performance
WLB	**Pearson Correlation**	1	-.640[**]
	Sig. (2-tailed)		.000
	N	200	200
Performance	**Pearson Correlation**	-.640[**]	1
	Sig. (2-tailed)	.000	
	N	200	200

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

Table No. 3 shows the correlation relationship between the work-life imbalances and performance of doctors. There is a moderate degree negative correlation between work-life imbalance and performance of doctors and its value is -.640. This shows that performance of doctor's decreases with the increase in imbalances in their personal and professional life. P-value is 0.00 which is less than 0.05. Hence null hypotheses H3: There is no significant impact of Work Life Imbalance on performance of doctors is rejected. Thus it is said that there is a significant impact of work life imbalance on the performance of doctors. Performance of doctors having imbalances in their work and life is more affected. Better balance in work and life of doctors will help to improve the performance of the doctors.

6.4 DISCUSSION

According to this research, work life imbalances inversely affected the satisfaction, morale and performance of doctors. The research study is also supported by other researchers also Work life balance enhances efficiency and thus, the productivity of an employee increases. It enhances satisfaction, in both the professional and personal lives. (V.Varatharaj et.al (2012). Less productivity at workplace, more conflicts , absenteeism , high attrition , low morale, more stress are the major impact of work life imbalance Vijayshri Rameshkumar Mehtha (2012). Work life Balance helps an employee in improving their job satisfaction and productivity (K. S. Chandrasekar, 2013).

7. CONCLUSION

The study result reveals that there is a significant impact of work life imbalance on the satisfaction, morale and performance of doctors. Thus it is concluded that satisfaction, morale and performance of doctors decreases with the increase in imbalances in the personal and professional life of doctors. Better balance in work and life of doctors helps to improve the morale, satisfaction and performance of the doctors. Work life balance policies will help to reduce the imbalances in the work life of doctors and thus it leads to improve their morale, satisfaction and performance.

8. SUGGESTIONS

- Managing Time & Setting Priorities are prominent.
- Doctors should identify the time wasters that are consuming their time, energy and encroaching upon their prime time
- Organization should provide facility of Tele-working i.e. use of technology to allow doctors to work from home (e.g. electronic health records, access reports, scans etc. on-line)
- Flexible working time, Shift Working and Job Sharing will also help to balance a personal and professional life.
- Appointment of administrative staff to reduce administrative burden on doctors.
- Organization should organize an Specific Counseling Programs on Work Life Balance
- Training programmes should be organized for the doctors in the workplace
- Participation of Doctors in Strategy Making
- Avoid Long Working Hours for Doctors:
- Other Facilities like facility for rest room to the doctors working in different shifts in peacefull atmosphere, Provide assistance to the doctors by taking care of regular family needs like insurance bills payment, tax payment, electricity bill payment, payment of mobile phone bills, Internet bills and other routine works of the doctors that can be done online in the hospital. So that they are free from such responsibilities.
- Organization should also provide recreational benefits like holiday and vacations plan for doctors and their family members, picnics, club facility etc so that doctors will get break for some time from their routine and become reenergized and feel satisfied.

9. IMPLICATIONS OF THE STUDY

This research can be beneficial for the management of the hospitals as well as the government to improve their work life policies, benefits programs and pay structures to improve the morale satisfaction and performance of doctors which in turn helps to quality of services provided by the doctors.

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A SHOPPER'S STUDY OF TOOTHPASTE CONSUMPTION AND BUYING BEHAVIOR WITH SPECIAL REFERENCE TO COLGATE TOOTHPASTE

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ABSTRACT

"The process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational objectives." In this report, we will discuss about the marketing mix of Colgate's toothpaste. Colgate Company is a top global maker and marketer of toothpaste and other soap of cleaning products. Nowadays, it is a truly global company serving hundreds of millions of consumers worldwide. McDaniel, Lamb and Hair (2007) explain the term of marketing mix as to a unique blend of product, distribution (place), promotion and pricing strategies (4P) designed to produce mutually satisfying exchanges with target market product. The Colgate product can be found at "personal care corner" in the supermarket. The products are categories in eight different types to target difference ages of consumer which the latest product offering in 2010 is Colgate® Sensitive Pro-Relief. The different size of packaging do attract consumer to purchase on the product. For example, a consumer who is going for a one week vacation can purchase traveler toothpaste (100gram) for RM 3.50 instead of buying the large one. The kid's toothpaste which come with attractive colour and design attract the kid to grab it as the other competitor such as Darlie toothpaste do not produce toothpaste for kid. In the case, Colgate is directly gaining competitive advantage in the industry.

KEYWORDS

Frequently, Price, Quality, Packaging, Freshness, Advertisement, Flavor, Opinion leader.

INTRODUCTION

Indian consumers are becoming (almost) as global in their thinking, preferences and orientation as their western counterparts. The ability to travel abroad for business and recreation, the exposure to the internet and other information and communication tools, lifestyle influences from print, TV and film media, among others drivers, are shaping Indian consumers' shopping behaviors and mindsets towards consumption. Indians, who typically followed a savings oriented approach, are enjoying the benefits of higher incomes and are often splurging on lifestyle-oriented goods. The increased spending power and the desire to acquire global, trendy and current products are incentivizing consumers to purchase products across categories, in the mass, premium and luxury segments.

OBJECTIVES OF THE STUDY

Is to know the buying behavior of costumers of Colgate toothpaste in large retail stores by giving young men the questionnaires.
• To know the buying behavior of Colgate toothpaste in large retail stores.
• To investigate the extent young men and business men's buying pattern of Colgate toothpaste in large retail stores.
Purpose: the purpose of the research is to investigate the extent of premature affluence among young men and business men's as well as factors associated prematurely affluent behavior.

SCOPE OF THE STUDY

Is to know the consumer behavior buying process in large retail outlets of Colgate toothpaste.

LITERATURE REVIEW

1) Author name : Neilson	Title name: Modern outgrowing Kirana stores in India.	Objectives: Objective is to study the consumer behavior in large retail stores of Colgate toothpaste.	Findings: Study of consumer in buying premium products, as consumers love to buy premium products in Indian market.
2) Author name: David deloit	Title name: The benefits of modern trade to transitional economies.	Objective: Is to study the Indian retail outlets and behavior of consumers.	Findings: 1) Consumers to benefit from widely available choice. 2) Detailed survey and conclusion on consumer buying behavior of Colgate toothpaste in large retail outlets.

METHODOLOGY

Adult subjects were randomly assigned to a test group using Colgate Total plus Whitening toothpaste with triclosan, and a control group using Colgate sodium fluoride toothpaste without triclosan. By the end of the study, following three years of product use, an evaluation was performed to compare baseline data to the three-year data for root caries and dental crown survival. Clinical root caries was evaluated by the Katz RCI- Root Caries Index. Within-treatment analysis for each dentifrice was conducted using a paired t-test. Between-treatment analysis was performed using Analysis of Covariance (ANCOVA). For fixed dental prosthetic treatment evaluation, dental crowns were dichotomized for success and failure at the end of the study. Within-treatment analysis for each dentifrice was conducted using a paired t-test.

SAMPLING PLAN

In order to study premature affluence among the young men and business men's I had originally planned to obtain a sample to obtain a sample to young men and business men' From Mysore city, area using a connivance sampling strategy. The sample of the study consisted of business mans and young people with 50 samples. And it both included both male and female respondents the study was conducted to investigate the significance level of the variables which I have taken and to know the correlation between the variables. Usually the investigator seeks to ascertain the casual effect of one variable upon another.

RESEARCH DESIGN

Questionnaire design

The questionnaire was contained several instruments measuring the variables at one point of time. The variables are measured at point 5 scale.

Primary design

Data was collected through the survey conducted and the structured questionnaire given 50 respondents for correlation test. The data was put into the Microsoft excel to 50 respondents and then the reliability was checked and it was within a limit and the variables which I was taken was correct. The additional

variables like age, gender were used to control for differences in the variables due to these demographic characteristics. The questionnaires were handed out to business men's and young people and collected back. No incentives given to students except the knowledge that their opinions would be part of a study on ethics. Data was collected by questionnaires. During the survey the business men's and young people were asked how important various factors were for them. The importance were measured on a 5 point scale, where "1" is "strongly disagree" and "5" is "strongly agree".

Instruments
1.   Frequently.
2.   Price.
3.   Quality.
4.   Packaging.
5.   Freshness.
6.   Advertisement.
7.   Flavor.
8.   Opinion leader.

DATA ANALYSIS AND INTERPRETATION AND ANALYSIS

TABLE 1: CORRELATIONS

		I_Frequently_visit_large_retail_stores	frequent_use_colgate_improved_freshness
I_Frequently_visit_large_retail_stores	Pearson Correlation	1	.196
	Sig. (2-tailed)		.172
	N	50	50
frequent_use_colgate_improved_freshness	Pearson Correlation	.196	1
	Sig. (2-tailed)	.172	
	N	50	50

Conclusion: Here I have taken frequent visit and frequent use of Colgate toothpaste improves freshness, here the more importance is given to the Colgate freshness according to the survey.

TABLE 2: CORRELATIONS

		I_only_purchase_colgate_toothpaste	I_purchase_toothpaste_flavour
I_only_purchase_colgate_toothpaste	Pearson Correlation	1	.152
	Sig. (2-tailed)		.292
	N	50	50
I_purchase_toothpaste_flavour	Pearson Correlation	.152	1
	Sig. (2-tailed)	.292	
	N	50	50

Conclusion: Here I have taken purchase as variable, and according to survey purchase of Colgate toothpaste based on flavor.

TABLE 3: CORRELATIONS

		I_aware_colgate_herbal_toothpaste_market	Is_colgate_sensitive_toothpaste_good_sensitive_teeths	colgate_sensitive_toothpaste_works	frequent_use_colgate_improved_freshness	colgate_symbol_freshness
Iam_aware_colgate_herbal_toothpaste_market	Pearson Correlation	1	.234	.246	.309[*]	.152
	Sig. (2-tailed)		.101	.085	.029	.291
	N	50	50	50	50	50
Is_colgate_sensitive_toothpaste_good_sensitive_teeths	Pearson Correlation	.234	1	.309[*]	.375[**]	.253
	Sig. (2-tailed)	.101		.029	.007	.076
	N	50	50	50	50	50
colgate_sensitive_toothpaste_works	Pearson Correlation	.246	.309[*]	1	.467[**]	.259
	Sig. (2-tailed)	.085	.029		.001	.069
	N	50	50	50	50	50
frequent_use_colgate_improved_freshness	Pearson Correlation	.309[*]	.375[**]	.467[**]	1	.417[**]
	Sig. (2-tailed)	.029	.007	.001		.003
	N	50	50	50	50	50
colgate_symbol_freshness	Pearson Correlation	.152	.253	.259	.417[**]	1
	Sig. (2-tailed)	.291	.076	.069	.003	
	N	50	50	50	50	50
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Conclusion: Here according to survey report great importance is given to the Colgate toothpaste freshness and Colgate and the next importance is given to Colgate is a symbol of freshness, next importance is given to I am aware of Colgate toothpaste and is Colgate sensitive toothpaste good for sensitive teethes.

TABLE 4: CORRELATIONS

		colgate_favourite_brand_toothpaste	satisfied_colgate_toothpaste
colgate_favourite_brand_toothpaste	Pearson Correlation	1	.615**
	Sig. (2-tailed)		.000
	N	50	50
satisfied_colgate_toothpaste	Pearson Correlation	.615**	1
	Sig. (2-tailed)	.000	
	N	50	50

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

Conclusion: Here, Colgate is my favorite brand of toothpaste and are you satisfied by Colgate toothpaste is highly significant they both got high rank in survey.

TABLE 5: CORRELATIONS

		consider_price_important_factor_purchasing_toothpaste	I_purchase_toothpaste_flavour
consider_price_important_factor_ purchasing_toothpaste	Pearson Correlation	1	-.004
	Sig. (2-tailed)		.977
	N	50	50
I_purchase_toothpaste_flavour	Pearson Correlation	-.004	1
	Sig. (2-tailed)	.977	
	N	50	50

Conclusion: Here, consider price as an important factor for purchasing Colgate toothpaste and I purchase toothpaste based on flavor.

TABLE 6: CORRELATIONS

		I_prefer_ingredients_present_colgate_toothpaste	toothpaste_serves_abbressive_oral_hygene
I_prefer_ingredients_present_ 3colgate_toothpaste	Pearson Correlation	1	.189
	Sig. (2-tailed)		.190
	N	50	50
toothpaste_serves_abbressive_oral_hygene	Pearson Correlation	.189	1
	Sig. (2-tailed)	.190	
	N	50	50

Conclusion: Here, great importance is given to toothpaste serves as an abrasive for oral hygiene compared to I prefer ingredients present in Colgate toothpaste.

TABLE 6: CORRELATIONS

Correlations		I_consider_quality_ important _factor_purchasing_ toothpaste	I_like_use_ toothpaste_ morethan_ mouthwash	I_agree_ opinion_leaders_ message_ colgate_ advertisement
I_consider_quality_important_factor_purchasing_toothpaste	Pearson Correlation	1	-.053	.078
	Sig. (2-tailed)		.716	.588
	N	50	50	50
I_like_use_toothpaste_morethan_mouthwash	Pearson Correlation	-.053	1	-.014
	Sig. (2-tailed)	.716		.923
	N	50	50	50
I_agree_opinion_leaders_message_colgate_advertisement	Pearson Correlation	.078	-.014	1
	Sig. (2-tailed)	.588	.923	
	N	50	50	50

Conclusion: Here, I agree up on opinion leader's message in Colgate advertisement ranks 1st in survey and the 2nd importance is given for I consider quality as an important factor while purchasing Colgate toothpaste and the 3rd importance is given for I like toothpaste more than mouth wash.

TABLE 7: CORRELATIONS

		advertisement_strong_impact_buying_colgate_toothpaste	toothpaste_advertisement_program_provide_promise
advertisement_strong_impact _buying_colgate_toothpaste	Pearson Correlation	1	.135
	Sig. (2-tailed)		.349
	N	50	50
toothpaste_advertisement_program_provide_promise	Pearson Correlation	.135	1
	Sig. (2-tailed)	.349	
	N	50	50

Conclusion: Here, toothpaste advertisement program promises makes a strong impact on buying Colgate toothpaste correlates strongly.

SUGGESTION

- ❖ The product must create awareness for Colgate tooth paste.
- ❖ Respondents expect only the related product along with the product as a discount/free gifts.
- ❖ Advertisement in every possible media would increase the market share.
- ❖ Any increase in the price must be justified by giving extra benefits to the customers.

CONCLUSION

Toothpaste helps in grinding the food while necessitates the caring of teeth. Teeth can be cared by keeping them clean by using toothpaste. Hence a study has been under taken to know the customer satisfaction and preference of toothpaste among public. It is learnt that the Colgate brand is the fast moving brand which has a number of product which caters to the needs of children as well as adults. They are influenced by advertisement mostly.

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TECHNOLOGY BANKING IN INDIA: ANALYSIS OF PERFORMANCE

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ABSTRACT

In fact, the growth of electronic payments in India has been impressive in recent years. However, the comparative merits of modern electronic payment systems are not spread evenly across the different regions of the country. Despite multiple electronic methods of payment being available, cash is still the preferred mode of payment in India. Indian banking industry has witnessed positive developments due to sweeping changes that are taking place in the information and communication technology. Electronic banking has emerged as result of this tremendous development. The objective of the research paper is to analyze the progress made by scheduled commercial banks in adoption of information technology over the last couple of years. The study is mainly secondary data based and also analytical in nature. The progress in e-banking in Indian context is measured through various parameters such as growth in Automated Teller Machines, Transactions through Retail Electronic Payment Methods, mobile banking,etc. Different Statistical methods are used for the present study.

KEYWORDS

E-banking, Information and Communication Technology, Electronic Payments.

INTRODUCTION

The last few years have witnessed an explosion of Information Technology based initiatives which have brought about a revolutionary change in the way how banking activities are conducted. Information and communication technology systems have improved the working of banks all over the world. The convenience and time factor of electronic banking have attracted many customers to go for E-Banking. As a result of adoption of Information Technology, Banking services have reached rural people of India and there is much scope for expanding banking activities with the help of technology solutions. It is a widely accepted fact that Banks have traditionally been in the forefront of harnessing technology to improve their products, services and efficiency. Over a long time, banks have been practicing telecommunication networks for delivering a wide variety of value added banking services. Internet is increasingly used by banks as a medium for receiving instructions and delivering their services to their customers. This form of banking is generally referred to as Internet Banking or E-Banking, although the range of products and services offered by different banks vary widely.

REVIEW OF LITERATURE

E-BANKING

R.S.Raghavan (2006) holds the view that technology has played a vital role in the evolution of banking sector, through speed creation, accuracy and efficiency of operation and reduction in the transaction cost. Banking services are now oriented to "anyhow, anywhere, anytime and any type" banking. Daniel (1999) defines electronic banking as the delivery of bank's information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television. E-banking is a brew of services that embody Internet banking, Mobile banking, ATM kiosks, Fund Transfer System, Real Time Gross Settlement, Credit/ Debit/Smart/Kisan Cards, Cash government services, as well as Data warehousing, Operational interpretation for MIS as well as Customer Relationship Management. Dheenadhayalan (2010) states that E-based banking is also known as Cyber banking, home banking, and virtual banking and includes various banking activities that can be conducted from anywhere. Thus the term E-banking includes RTGS, NEFT, ECS, Credit cards and debit cards, Cheque truncation, ATM, Tele banking, Internet banking and Mobile banking.Dr. B.S.Sawant (2011) opined that efficient use of technology has facilitated accurate and timely management of the increased transaction volume of banks that comes with larger customer base. By designing and offering simple, safe and secure technology, banks reach at doorstep of customer with delight customer Satisfaction.

Internet banking, a major constituent of e-banking framework, has changed the dynamics of commercial banking worldwide by virtually bringing the entire banking set-up at the doorstep of a common banking customer .In the recent times, technology enabled convenience banking has been leveraged upon by the private sector and foreign commercial banks towards attracting a major chunk of both retail and corporate customers. Public sector banks must view this as challenge and endeavor to become a part of the technology stream towards ensuring more convenient and secure banking environment for their customers.(Pallab Sikdari and Munish Makkad,2013)

Dr. Komal and Dr. Vandna Rani (2012) shares the view that Banks must realize the seriousness of challenges ahead and develop a strategy that will enable them to leverage the opportunities presented by e-banking. E-banks need to shift now from product centric to customer centric i.e. to design services according to the needs dreams and expectations of the customers. ICT infrastructure facilities are also not well developed and the banks are unable to extend the e-banking services, therefore, good infrastructure need to be developed.ICT enabled banking system has replaced the traditional working pattern of banks.N.Jamluddinn (2013) found that among the card based payment systems debit card is more popular than credit cards. The number of ATMs in India, particularly in rural areas, is on the rise and customers irrespective of their profile started accepting ATM as a channel for banking transactions, both internet and mobile banking is gaining popularity but considering the rapid penetration of mobile phones in India, the potential for delivering banking services through mobile phones is immense compared to internet as a delivery channel.

In essence, there has been a rapid development in Information and Communication Technology ,which has reflected in banks' business strategies, customer services and organisational structure. Innovative adoption in the form of internet banking, ATMs and mobile applications have created a profound impact on the delivery channels of banking services. Also, a number of innovative developments in retail payments have emerged, which affect the retail payment market by influencing users in their choice of payment instruments and by significantly reshaping the payment processes.

OBJECTIVES OF THE STUDY

The objective of the present investigation is to analyze the performance of Indian banking industry in offering banking facility with the aid of technology solutions over the last 4 years.

RESEARCH METHODOLGY

The present study is secondary data based and also analytical in nature. Statistical and mathematical tools such as simple growth rate, percentages and averages are used. The major sources of data are Report on Trends and Progress of Banking in India and statistical reports published by Reserve Bank of India. The parameters of the study are the growth in Automated Teller Machines and Transactions through Retail Electronic Payment Methods such as Electronic Clearing services (ECS) - debit and credit, National Electronic Fund Transfer and Electronic Clearing Cards that is debit card and credit card. To analyze progress made by Indian banking industry in adoption of technology, averages, percentages and simple growth rate is calculated. (In this study, simple growth rate is indicated by GR. GR= Yt −Y0 /Y0 x 100 where Yt indicates value of given parameter in current year and Y0 indicates value of given parameter in base year).

ANALYSIS AND FINDINGS

AUTOMATED TELLER MACHINE (ATM)

A milestone technological development, which has brought a tremendous change in the delivery channel in the banking sector, has been the Automated Teller Machines (ATMs). The penetration of ATMs in Indian Financial market increased in 2012-13 with the total number of 1,14,014 ATMs .While ATMs are an innovative technology to provide basic banking solutions to customers in a much faster and cost-efficient manner. From the feedback from the banking industry, it is evident that off-site ATMs are particularly more cost efficient since they operate without the paraphernalia of a bank branch. It is evident from (table No.1) that, the relative proportion of off-site ATMs has been much more than that of on-site ATMs in the case of new private sector banks and foreign banks. The share of Off-site ATMs is 42.2% in the case of public sector banks. Overall 51% of ATMs of scheduled commercial Banks constitute off-site ATMs and that is more economical compared to Onsite ATMs.

TABLE 1: NUMBER OF ATM S OF SCHEDULED COMMERCIAL BANKS IN INDIA AT THE END OF MARCH 2013

Bank group	On Site ATMs	Off Site ATMs	Total ATMs	Off Site ATMs as % of Total ATMs
1.Public sector banks	40241	29,411	69,652	42.2
1.1Nationalized banks*	20,658	14,701	35,359	41.5
1.2SBI Group	18,708	13,883	32,591	42.5
2.Private sector banks	15,236	27,865	43,101	64.6
2.1Old private sector banks	4,054	3,512	7,566	46.4
2.2.New private sector banks	7,566	24,353	35,535	68.5
3.Foreign banks	283	978	1,261	77.5
All SCBs	55,760	58,254	1,14,014	51

Note: *: Excluding IDBI

Source: Report on Trend and Progress of banking in India, 2012-13

FIGURE 1: NUMBER OF ATM S OF SCHEDULED COMMERCIAL BANKS IN INDIA AT THE END OF MARCH 2013
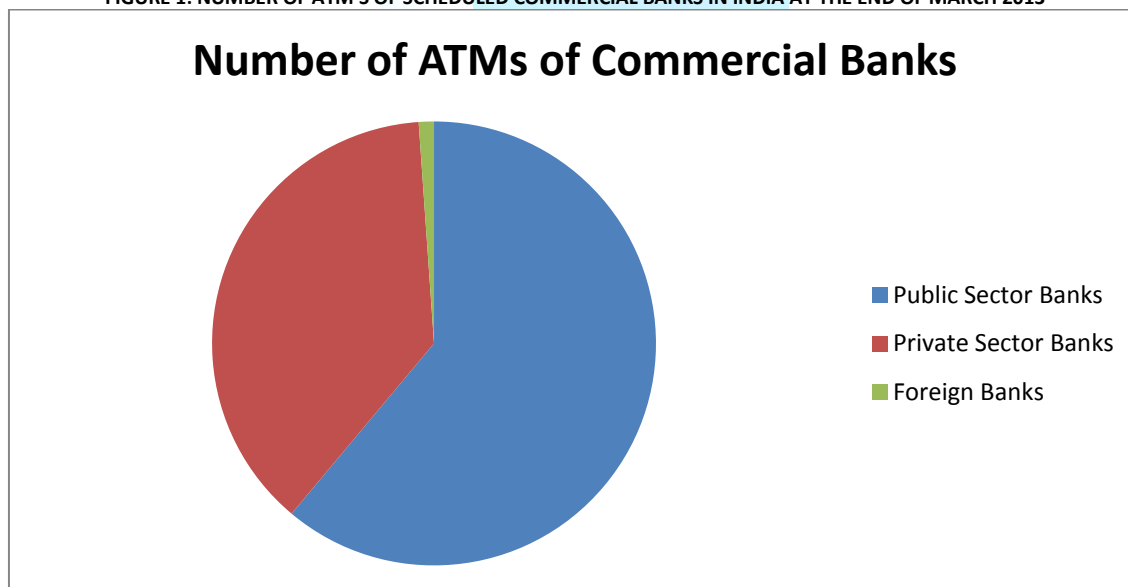
As per the Table No.2 ,Automated Teller Machines of scheduled commercial banks have shown a positive growth rate over the last 4 years.There is 89.6% growth rate in the number of ATMs in 2013 as compared to the figure of ATMs in 2010.On Site ATMs have marked 70.6 growth rate in 2013 and it is 112% growth rate in the case of Off-Site ATMs.The growth rate of Off Site ATMs are more than growth rate of On Site ATMs during the period 2012 and 2013.

TABLE 2: AUTOMATED TELLER MACHINES (ATMS) OF SCHEDULED COMMERCIAL BANKS

Year	On site	GR	Off-site	GR	Total	GR
2010	32,679	-	27,474	-	60,153	-
2011	40,729	24.7	33,776	22.9	74,505	23.9
2012	47,545	45.4	48,141	75.2	95,686	59
2013	55,760	70.6	58,254	112	1,14,014	89.6

Source: compiled from RBI annual reports -various years

FIGURE 2: AUTOMATED TELLER MACHINES (ATMs) OF SCHEDULED COMMERCIAL BANKS
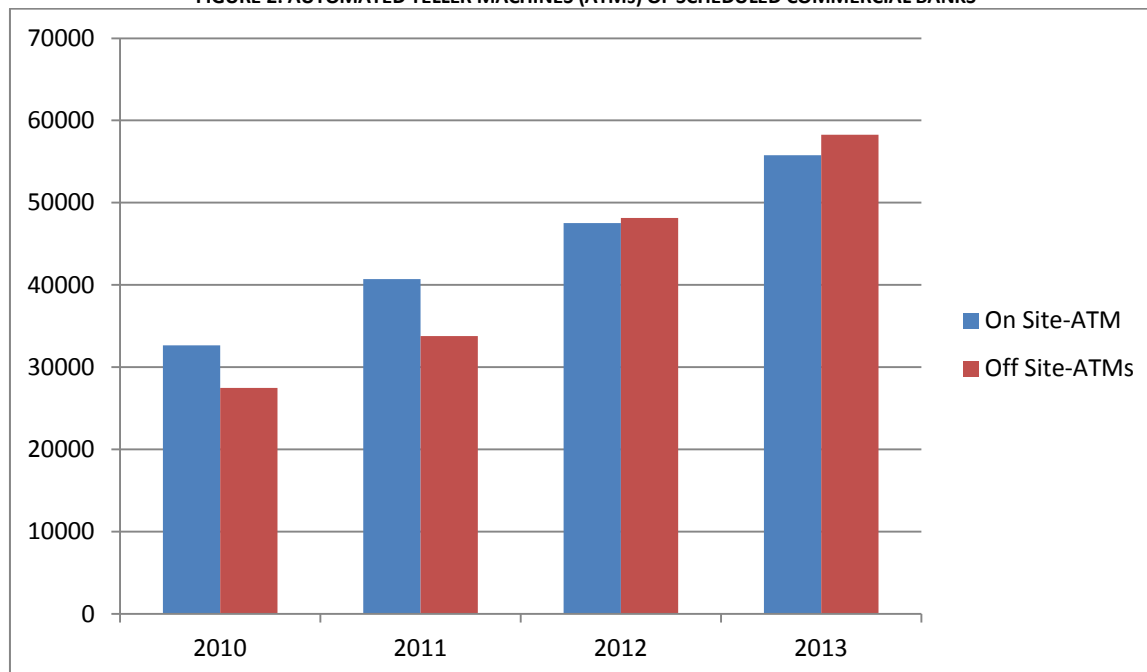
NEFT, ECS (CREDIT), ECS (DEBIT)

In the case of National Electronic Funds Transfer , the funds transfer takes place within the same day if it is within the cut-off time and the next working day if it is beyond the cut-off time prescribed. Funds are transferred to the credit account with the other participating Bank using RBI,s NEFT service**.** Electronic Clearing Service (ECS) is a mode of electronic fund transfer from one bank account to another bank account through the clearing houses of Reserve Bank of India. This is normally for bulk transfers from one account to many accounts or vice-versa in the form of ECS-credit and ECS-debit. ECS (Credit) is used when an institution is required to make bulk or repetitive payments in the form of dividend to shareholders, interest to investors, salary/pension to employees etc. ECS (debit) is used when an institution is required to collect an amount, by raising a debit, at a prescribed frequency from many customers in the form of telephone or electricity charges, house tax, water tax, loan installments etc.

TABLE 3: NEFT, ECS (CREDIT), ECS (DEBIT) OF SCHEDULED COMMERCIAL BANKS (VOLUME)

year	ECS-CREDIT		ECS-DEBIT		NEFT	
	VOLUME	GR	VOLUME	GR	VOLUME	GR
2010-11	117.3	-	156.7	-	132.3	-
2011-12	121.5	3.5	164.7	5.1	226.1	70.8
2012-13	122.2	4.2	176.5	12.6	394.1	197.8
2013-14	152.5	30	192.9	23.	661	399.6

Source: compiled from RBI annual reports -various years

FIGURE 3: NEFT, ECS (CREDIT), ECS (DEBIT) OF SCHEDULED COMMERCIAL BANKS (VOLUME)
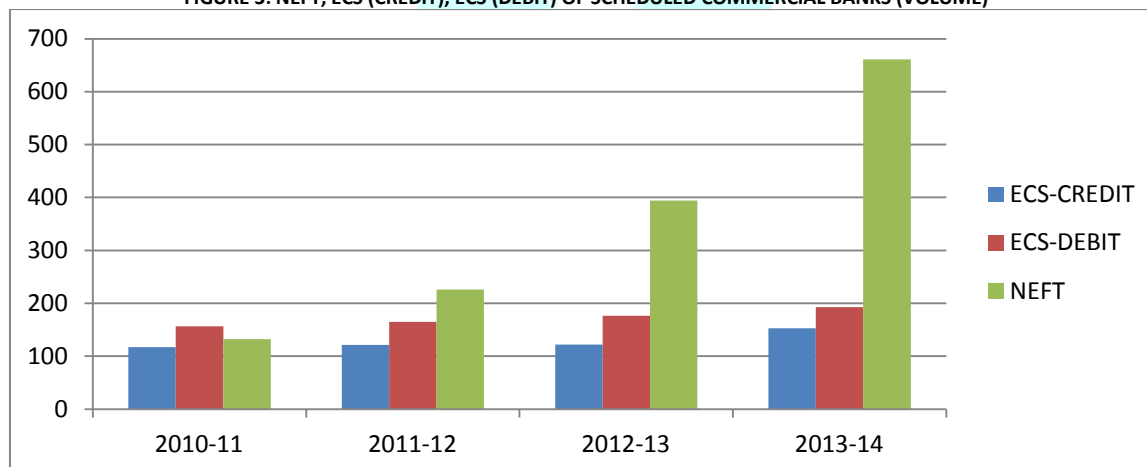
TABLE 4: NEFT, ECS (CREDIT), ECS (DEBIT) OF SCHEDULED COMMERCIAL BANKS (VALUES)

year	ECS-CREDIT		ECS-DEBIT		NEFT	
	Value	GR	Value	GR	Value	GR
2010-11	1816	-	736	-	9321	-
2011-12	1837	1.1	833	13	17903	92
2012-13	1771	-2.5	1083	47	29022	211.3
2013-14	2492	37.2	1268	72.2	43785	369.7

Source: compiled from RBI annual reports -various years

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FIGURE 4: NEFT, ECS (CREDIT), ECS (DEBIT) OF SCHEDULED COMMERCIAL BANKS (VALUES)
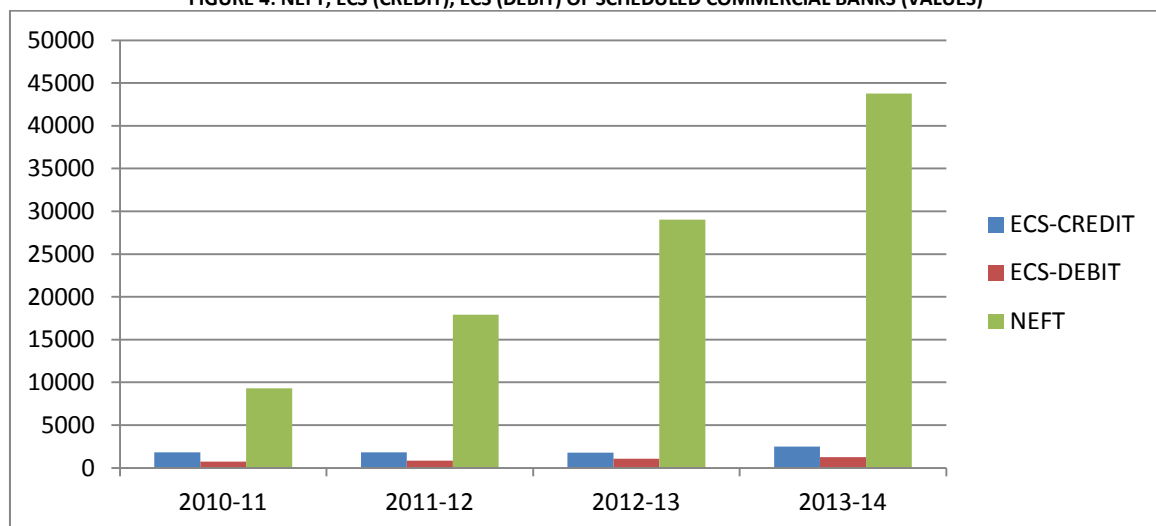
The above table shows that During 2013-14, the electronic clearing service (ECS) debit-handled 193 million transactions valued at around 1,268 billion and ECS credit processed 152 million transactions valued at around 2,492 billion. With the gradual expansion of the regional electronic clearing service (RECS) operations, the volumes at many ECS centre have completely subsumed to RECS centre. As on April 30, 2014, the national electronic funds transfer (NEFT) facility was available at 111,619 branches of 158 banks. During 2013-14, NEFT handled 661 million transactions valued at around 44 trillion. ECS debit has marked 23% growth rate in 2013-14 as compared to the base year 2010-11.On the other hand ECS credit has marked 30% growth rate in 2013-14 as compared to the base year 2010-11.The percentage growth rate of ECS debit is more than ECS debit 2010-11,2011-12 and 2012-13 except the period 2013-14.

RTGS, CREDIT CARD AND DEBIT CARD

Real Time Gross Settlement System (RTGS) is a mechanism of transferring funds from one bank to another on a 'real time' basis. This is the fastest mode of funds transfer available in India through banking channel.RTGS transactions are interbank as well as between customers through bank accounts. The fast growth in volumes indicates the increasing popularity of RTGS as a payment system among the banks and the customers as well. The transactions are settled as soon as they are processed .Gross settlement means the transaction is settled on one to one basis without bunching with any other transactions.

TABLE 5: RTGS, CREDIT CARD AND DEBIT CARD OF SCHEDULED COMMERCIAL BANKS (VOLUME)

year	CREDIT CARD		DEBIT CARD		RTGS	
	VOLUME	GR	VOLUME	GR	VOLUME	GR
2010-11	265	-	237	-	49.3	-
2011-12	320	20.7	327.5	38	55	11.5
2012-13	396.6	49.7	469	97.8	68.5	38.9
2013-14	509	92	619	161	81	64.3

Source: compiled from RBI annual reports -various years

FIGURE 5: RTGS, CREDIT CARD AND DEBIT CARD OF SCHEDULED COMMERCIAL BANKS (VOLUME)
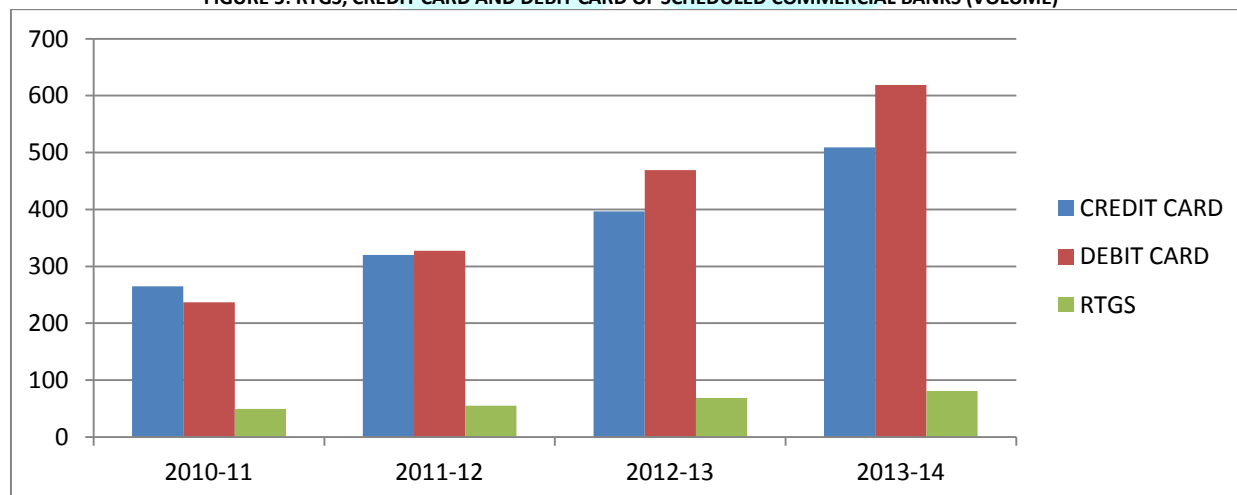
TABLE 6: RTGS, CREDIT CARD AND DEBIT CARD OF SCHEDULED COMMERCIAL BANKS (VALUE)

year	CREDIT CARD		DEBIT CARD		RTGS	
	Value	GR	Value	GR	Value	GR
2010-11	755	-	387	-	484872	-
2011-12	966	27.9	534.3	38	539307	11.2
2012-13	1229.5	62.8	743.4	92	676841	39.5
2013-14	1539.9	103.8	954	146.5	734252	51.4

Source: compiled from RBI annual reports -various years

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FIGURE 6: CREDIT CARD AND DEBIT CARD OF SCHEDULED COMMERCIAL BANKS (VALUE)
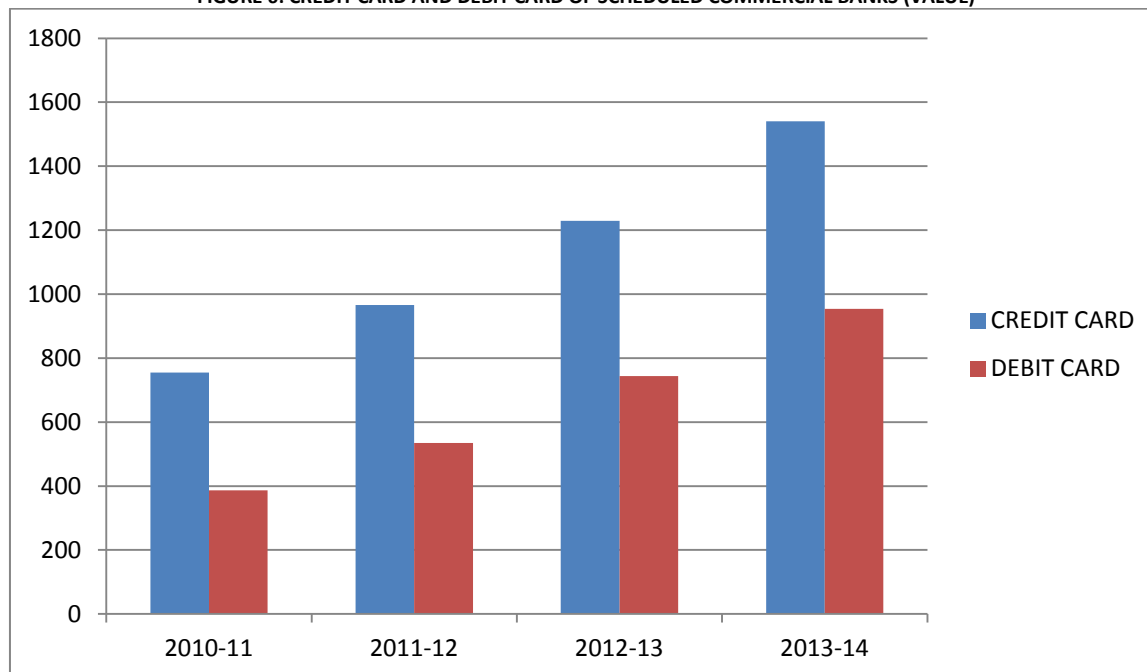
FIGURE 7: RTGS VALUE
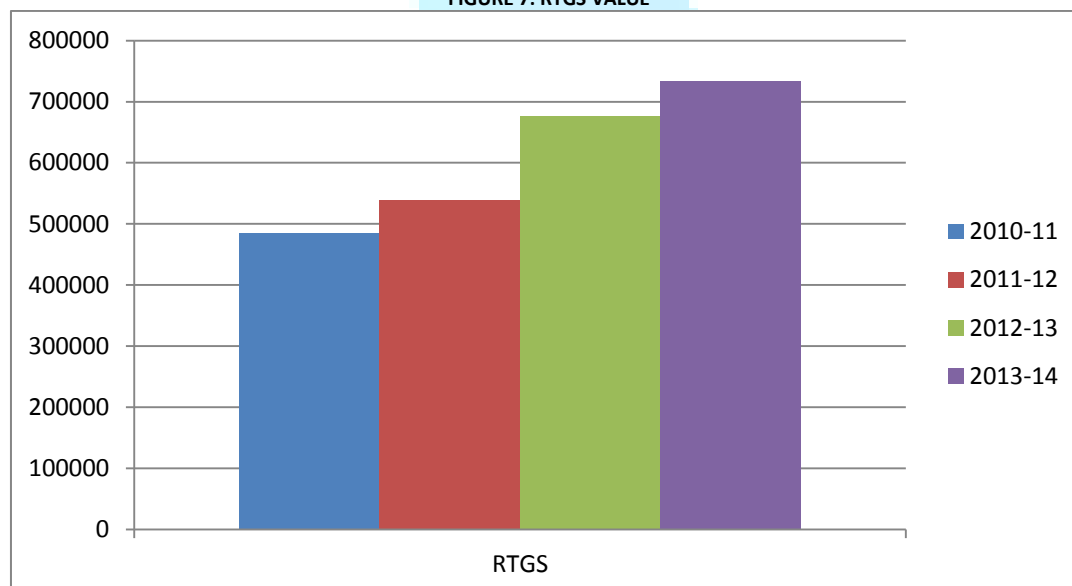
During 2013-14, the RTGS processed around 81 million transactions valued at 734 trillion. As on April 30, 2014 the number of RTGS enabled bank branches stood at 109,506. During 2013-14, 509 million transactions valued at 1,539 billion were transacted through credit cards, while 619 million transactions valued at 954 billion were undertaken through debit cards.The number of outstanding credit cards and debit cards issued have shown positive growth rate for the period from 2010-11 to 2013-14.The volume credit card increased to 92% during th year 2013-14.It is 161% in the case of credit cards. The percentage growth in debit card is more than the percentage growth in credit cards in terms of volume and values.

MOBILE BANKING

Mobile banking is a recent addition to electronic banking technology. Banks have been offering mobile banking services to their customers through various channels such as SMS, USSD (Unstructured Supplementary Service Data) channel, mobile banking application etc.As per TRAI consultation paper on Mobile telephony in India has a huge potential with 873.44 Mn mobile connections as on 30.06.2013 in the country, of which about 350 Mn are in rural areas. Mobile banking transaction is cost effective and time saving compared to the traditional banking channels. Therefore, there is need for banks to encourage the mobile banking channel in a big way. Mobile banking offers a huge opportunity for banking industry to leverage upon the mobile density in the country. In recent years, the mobile banking has been reflecting a growing trend with the volume and value increasing by 108.5% and 228.9% respectively. The trend in usage of Mobile Banking in the last three years is given below:

TABLE NO. 7: GROWTH IN MOBILE BANKING OF SCHEDULED COMMERCIAL BANKS

Year	No. of Users (Million)	GR	Volume (Million	GR	Value (Billion Rs.	GR
2010-11	5.96	-	6.85	-	6.14	-
2011-12	12.96	117.45	25.56	273.14	18.21	196.57
2012-13	22.51	73.68	53.30	108.53	59.90	228.9

Source: Mobile banking, report of the technical Committee, RBI 2014

CONCLUSION

The growth in electronic payments is reflected in the high volumes witnessed under various electronic payment systems during the last couple of years. It shows that E-banking is becoming more popular in Indian banking industry. The declining trends in cost of internet and mobile charges and falling prices of PCs and

improved banking technology encouraged the banks to be more e-service oriented. The emerging payment system in India for large value transactions is RTGS, ECS for bulk payments and NEFT for one to one fund transfer. It is also concluded that debit card is more popular than credit card in terms of volume of transaction. ATM and mobile banking have become increasingly acceptable among the customers and there is need for banks to encourage the mobile banking channel in a big way keeping in mind the long term economic gains.

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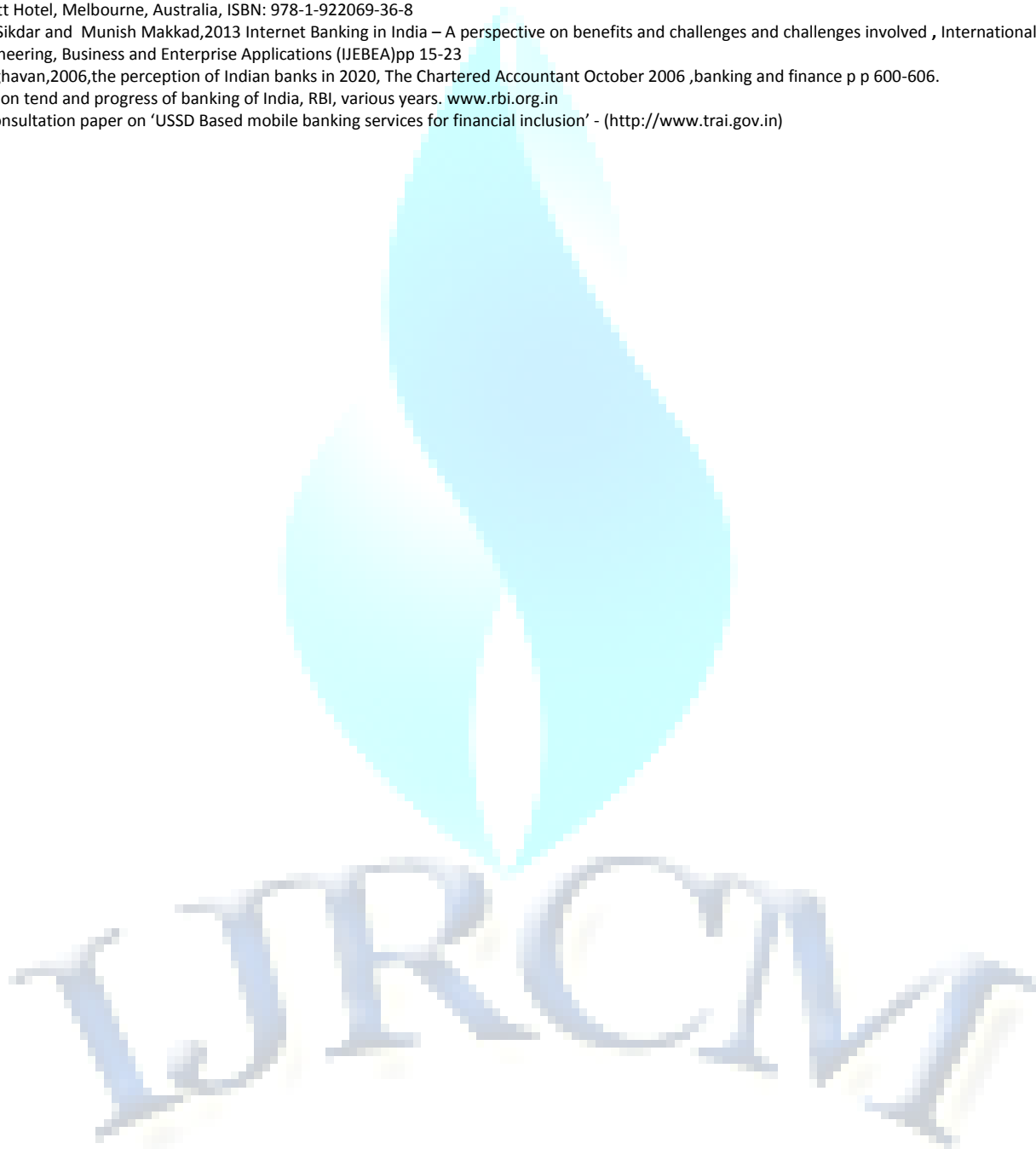
A CRITICAL EVALUATION OF PORT PRICING AND TARIFF STRUCTURE IN NIGERIAN PORTS

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ABSTRACT

This thesis evaluated Port pricing and tariff structure in Nigerian Ports. It deduced the Port pricing method adopted in Nigerian Ports. It also reviewed the challenges militating against the implementation of effective port pricing and tariff structure, and the impact of port service price on the demand for shipping services. Relevant literatures on evaluation of Port pricing and tariff structure in Nigerian Ports were reviewed. Primary data were collected by means of questionnaire from respondents in the Shipping companies, shipping agents, logistics companies, stevedoring agents, and freight forwarders. In all, 200 valid questionnaires were returned and used for the analysis. The Analysis of Variance (ANOVA) method was used to analyze the data collected with the help of the Statistical Package for Social Sciences (SPSS). After the analysis, it was deduced that cost based pricing is the Port pricing method prevalent in Nigerian Ports. It was further deduced that unstructured increase in tariff structure and port service price has been the major cause of cargo diversion from our Ports to neighbouring ports, it reduces the demand for shipping services, inflates price of import, causes delay in cargo clearance, and could lead to increased freight rates. After the test of hypothesis, it was deduced that there is a significant relationship between port pricing and competitive advantage in our Ports. It was also affirmed that an inverse relationship exist between Port service price and demand for shipping services. It was concluded that changes in port pricing has implications for competitiveness of ports, and thus port pricing strategies that gives incentives will increase Port efficiency and enhance port assets utilization. There is need for reduction of government multiple agencies at the port and encouragement of joint examination on imports by concerned agencies. This will reduce multiple tariff structures and eliminate corruption within the maritime system.

KEYWORDS

Port Pricing, Port tariff, Tariff structure, Nigerian Ports, Cargo diversion, Multiple agencies, Competitive advantage, Ports and Shipping services.

1.1 INFORMATION

Over the years, and in the years to come, if not properly handled in line with international best practices, it is a fact that, the management and organization of the Nigerian Port system have proved to be unnecessarily difficult due to external influence of government policies and the lack of funding as the trend has been for years (Ndikom, 2011). This is because by nature, port services and operations have huge structural and capital outlays. This therefore means that, to be effective and efficient, the port should have enough finance to shoulder all its responsibilities. Obviously, an adequately and efficiently operated port (with regard to pricing policies and efficient service delivery) is important to the development of a maritime nation- whether in ensuring the continuing prosperity of an industrialized Country or in ensuring the steady development of an under developed nation or economy (Rjne, 1988). Efficient port pricing increase the operational modalities of a given port system, especially in this age of deregulated market systems. Port pricing can be broadly defined as the use of pricing as a mechanism for achieving operational, financial and marketing objectives and targets. Port pricing is considered as many as the key activity within a capitalistic or free market economy (Iheanacho, 2005). It is a basic regulator of the economic system because it influences the allocation of all factors of production. Price, therefore, is the allocator of scarce resources, and the determiner of what will be produced (supply of port services), and who will get how much of the product (demand of port services by users). Port pricing structure, more than any other segment of the maritime system, is influenced by state legislations and policies which, most times, adversely affect operations within the system (Folarin, 2009). Obviously, the price of a port service is a major determinant of the market demand for such service. This is because price usually affects a service competitive position and its share of the market in a deregulated setting. In this case, Port pricing has a considerable bearing on a port's net profit. The price of a port service affects port operations and marketing targets. The port price of a service offered at any given point in time influences wages, rent, tariff structures, charges, and profits within an economic system. Indeed, the price of a product or service in a port influences the price paid for the factors of production (Land, labour, capital and entrepreneurship). It is believe generally that, the pricing of port services, like all other forms of pricing, is dependent on the forces of demand and supply; but the factors affecting both demand and supply of port services are perhaps more complicated than in the case of other industries (Ndikom, 2008). This phenomenon makes the pricing of port services rather difficult and complex. It is noteworthy that, as with forms of transport infrastructures, the demand for shipping and associated port facilities, is derived from the demand of the commodities carried; it is therefore affected by the elasticity of demand for such commodities. Consequently, for a well conceived pricing structure and tariff system for port services to be justified, ship owners and other port users would demand some reasonableness in costing, such as;

- Adequate facilities to accommodate the size and type of ships engaged in or likely to be employed in particular trade that requires the services of the port.
- Efficient services for docking and undocking of ships.
- Efficient facilities and services for loading, discharging and storing of cargo.
- Adequate and efficient facilities in the port areas for transit of goods.

Port price is the value expressed in terms of monetary medium of exchange regarding services offered to port users at a particular time. In short, a price is the amount of money (plus possibly some service) that is needed to acquire a product and its accompanying services (Ndikom, 2011). It is the only element in the marketing mix that is revenue related; the other elements are cost related. Inspite of the importance of price setting, most ports do not handle pricing well (Ndikom, 2011). The most common mistakes are;

a. Pricing is too cost oriented in the ports authority fail to take sufficient account of demand intensity and customer psychology.
b. Price is not revised often enough to capitalize on the changed conditions in the market.
c. Price is too set independently of the rest of the marketing mix rather than as an intrinsic element of market positioning strategy.
d. Price is not varied enough for different service items and market segments.

Over the years, there have not been appropriate port pricing policies in Nigeria due mainly to the problems of management, government policy inconsistencies and lack of funding; and this has negative effects on port operations and performance. There was a single pricing approach that was accepted and uniformly

applied by all ports. And, indeed, what was obtainable had no 'best approach', given the diversity in the characteristics, types of ownership philosophies of management, specific goals and so on. But to attain optimum utilization of facilities, a port must have the capacity to determine the net benefit at a level that is enough to encourage the economic utilization of port assets and services (Ndikom, 2011). If port assets are in port supply, people and organizations would be discouraged from using the port and its few assets. A system that sets prices for sufficient and efficient assets is likely to meet the target of profit maximization and customer satisfaction. This means that, except a port has excess shed capacity, a pricing policy which encourages port users to allow their goods to remain in transit sheds instead of a warehouse outside the port would only lead to overcrowding of these sheds and, ultimately, to inadequate utilization of quays and other infrastructure, delays to ships of gang time and so on. This is an argument, however, that high charges for port services will encourage shippers to remove their cargo from transit sheds as quickly as possible, thereby permitting better utilization of other port assets, even if they yield lower revenue to the port. But if the port has excess transit shed capacity, warehousing then become a source of income to the port and relatively low charges are applied to encourage goods to be left in the port in other to secure better utilization or transit shed facility without jeopardizing other port assets and services (Ndikom, 2011). Moreso, port administration and structure is a process of carrying people along in an organizational setting towards the achievements of corporate objectives. The administrative prowess of a port determines the effectiveness and efficiency of that port. The main goal of port development and tariff administration is to facilitate easy productivity. The demand for port services outweighs the supply of port services in Nigeria. In other words, the expected level of efficiency in the port of the world is yet to be achieved. Port tariff is a form of tax that is paid by a port user to the port authority for his goods coming into or going out of the port (Ndikom, 2006). It is also a list of fixed prices that are charged by a port for rendering a particular form of service to the port user. A port charge, on the other hand, is the amount of money a port authority asks the port user to pay for the goods imported and services rendered. Port charges are used in general application to refer to the price required by any ports authority for services rendered, which are distinct from facilities provided in connection with the handling of cargo, for instance, between the ship and the shore. Major port charges, which form the main source of income for the port, are constituted by general port dues, rates and specific tariffs (Ndikom, 2008). Strategic tariff administration has to do with decisions that lead to the application of appropriate tariff administration for both imports and exports. This also has to do with having the right prices or tariff for all imports and exports in the administration and application of same. The nation's port have, over the years been run by managers whom seem not to understand the basic principles of management. A well managed port system is often seen as a great tool of government or the state, especially in developing its internal commercial activities and the movement of cargo to and fro the nation. In view of the changing port and shipping environment which, over the years, have been plagued with fraudulent and sharp practices, administration of both human and material resources (including tariff application) within the port, should be of great interest to government, policy makers and concerned stakeholders (Ndikom, 2011). A port is a system of individuals working together to achieve, through a hierarchy of ranks and division of labour, common goals (Ndikom, 2008). Administration, on the other hand, is a process of carrying people along in an organization to achieve corporate objectives. Hence, the saying that, the administration of a port determines the effectiveness of that port. It is important to present first, an overview of the administrative pattern of a port worldwide and in Nigeria, especially regarding tariffs. This is expected to facilitate the retooling of port administration in the country (Iheanacho, 2005). Within the last few years of port reforms, prot administration in Nigeria witnessed a new structure of autonomy, reflecting a new tariff administration/regime at all terminals. This regime is one of the best form of tariff administration in the world over. The system centres around autonomy for major ports governing boards and strong executive offices, a unified command in each port by the executive director supervision, coordination and guidance by a policy making port authority, and so on. Also of interest is the adoption of flexible local requirements that permit modifications in accordance with changing conditions (Ndikom, 2011).

The administrative patterns of large and prosperous ports is often far from being perfect, needing improvements and reforms. A radical change in eths system may, however, be more difficult to carry out in ports of an advanced country than those of a newly independent state, because of long established habits and vested interests. Most executives in the former have xercised authority and control in a given pattern for a long time. Authorities are always reluctant to relinquish their responsibilities in an event of an extensive re-organization.

Exorbitant port charges are major constraints to doing business in Nigeria ports. It could be recalled that the various port reform process embarked upon by the government failed to address the issue of high port charges, except the 2001 port reforms policy (Ndikom, 2004).

It is noteworthy therefore that high port charges have 'criminally' dainted operators in Nigerian Ports, where compared to sea ports of neighbouring countries. As a result, diversion of cargo vessels to these ports is a common feature, thereby causing massive loss of revenue to government, low ship turnround time, unemployment, and ofcourse, increased smuggling activities across the nation's borders (Ndikom, 2008). But with concessionig, the Federal government has reviewed the various ports charges and tariffs for the various services offered in the ports in conformity with the 48 hours clearance project, as a way of achieving the objectives for which the nation's seaport were concessioned, and transformed the Nigerian Port system to a modern, fast clearing system, which is user and investment friendly, as is done elsewhere in the world (Ndikom, 2008).

1.2 PROBLEM STATEMENT

Over the years, there have not been an appropriate port pricing policies in Nigerian Maritime Industry due to mainly the problem of management, government policy inconsistencies and lack of funding; and this have had negative effects on port operations and performance. There was no single pricing approach that was obviously accepted and uniformly applied by all ports for purposes of documentation, cargo clearing and delivery at the end (Ndikom, 2011). And indeed, what was obtainable had no best approach, given the diversity in the characteristics, types of ownership, philosophies of management, specific goals and so on. Really, the pricing of port services and fixing of appropriate tariff rates is an important tool in managing port operations and attracting port patronage. This is because, over the years, port pricing of services in Nigeria has never been static, for there was no appropriate price for services rendered to Port users in most Nigerian Ports (Iheanacho, 2005). This has thus negatively affected the nation's port utilization, port's productivity, efficiency and operational performance optimization. Obviously, it is believed that, exorbitant port charges are major constraints to doing business in Nigerian Ports. It could be recalled that the various port reform process embarked upon by the government failed to address the issue of high port charges, except the 2001 port reform policy (Ndikom, 2004). It is noteworthy therefore that high port charges have 'criminally' daunted operations in Nigerian Ports, when compared to seaports of neighboring countries. As a result, diversion of cargo or vessels to these ports is a common feature, thereby causing massive loss of revenue to government, low ship turnround time, unemployment, and off course, increased smuggling activities across the nation's orders (Ndikom, 2008). But with concessioning, the Federal government has reviewed the various port charges and tariffs for the various services offered in the Ports in conformity with the 48 hours clearance project, as a way of achieving the objectives for which the nation's seaports were concessioned, and transform the Nigerian port system to a modern, fast-clearing system, which is user and investment friendly, as is done elsewhere in the world (Ndikom, 2008). With a concession of Nigerian ports, the federal government has attempted to review the various port charges and tariffs for Port services in the country, in conformity with the 48 hour clearance objectives. This way, the government can achieve the objectives for which the seaports were concessioned and thus, transform these ports into a modern port system, that is both user and investment friendly. This is the best practice in world maritime industry (Ndikom, 2008). This is because, the administration of port tariff in Nigeria has, over the years, been a difficult task for both Port managers and terminal concessionaires. Tariff regimes in the country has been adjudged the highest in West and central African sub regions, a situation that the world bank considers the most precautious business and investment in the world. Terminal concessionaires often claim that such high tariffs and charges are to maintain an efficient and effective port environment. To an extent, the argument seems right as vessels that today call at the terminals leave on time than during the NPA days. But, this is not enough justification in this time and age of globalization, when prices paid for ort services are crashing all over the world and tariff application and administration as regards imports and exports are reducing drastically even in West Africa (Iheanacho, 2005).

1.3 OBJECTIVES

The main objective of this research is to evaluate Port pricing and Tariff structure in Nigeria Ports. Other specific objectives include;
1. To evaluate the Prospect of Port Pricing and tariff structure in Nigerian Ports.
2. To deduce the port pricing method adopted in Nigerian ports.

3. To review the challenges militating against implementation of effective seaport pricing and tariff policy.
4. To assess the effect of Port service price on the demand for shipping services.
5. To assess the effect of competitive tariff structure on cargo throughput in Nigerian Ports.

1.4 RESEARCH QUESTIONS

The following research questions are formulated to guide the study.
1. What are the prospects of Port pricing and tariff structure in Nigeria?
2. Which Port pricing method is adopted in Nigerian Ports?
3. What are the challenges militating against implementation of effective seaport pricing and tariff policy?
4. What are the effects of Port service price on the demand for shipping services?
5. What are the effects of competitive tariff structure on cargo throughput in Nigerian Ports?

1.5 RESEARCH HYPOTHESIS

The research hypotheses include the following;

H_{01}: There is no significant relationship between port pricing and tariff structure and competitive advantage in our ports.

H_{01}: There is no significant relationship between improved tariff structures and cargo throughput in Ports.

H_{01}: There is no inverse relationship between Port service price and demand for shipping services.

1.6 METHOD

RESEARCH DESIGN

This is a cross-sectional survey design which involves the use of questionnaire, was adopted in this study using simple random technique, a total population study of three hundred respondents were drawn from a selected Nigerian port industry, through which two hundred and forty respondents were finally selected. This research study also used a non-probability sampling method through convenience sampling to arrive at a sample size of two hundred and forty (240) respondents. This design was choosen because it provides appropriate methodology for opinion and perception of human behavior.

INSTRUCTMENTATION

A self developed close ended 21 item titled **a critical evaluation of port pricing and tariff structure in Nigerian ports** and was developed and used for data collection. This questionnaire was structured to generate information with respect to the research questions earlier stated. Content validity for the instructment was ascertained by technocrats, and professionals within the maritime industry. The reliability was ascertained using the test-retest method with an intervening interval of one week between the first and the second administrations of the questionnaires. The reliability coefficient of 0.0025 was obtained. To accomplished the investigation, the researcher distributed copies of questionnaire to 240 respondents drawn for Apapa and Tincan Island ports Lagoss as regard **evaluation of port pricing and tariff structure in Nigerian ports.**

1.7 DATA PRESENTATION AND ANALYSIS

This paper contains data presentation and analysis thereby showing the nitty gritty of the entire research work. It starts with the analysis of the respondent's bio data. A total of 250 questionnaires were administered and 200 valid questionnaires returned.

The variable analysis started with presentation of the data and analysis of each data with the use of different tables for each item discussion through percentage analysis and weighted scores.

ANALYSIS OF QUESTIONNAIRE

What is your gender?

TABLE 1: SHOWING THE GENDER DISTRIBUTION OF RESPONDENTS

Sex	Number of respondents	Percentage (%)
Male	164	82
Female	36	18
Total	200	100

Source: Field survey

Discussion: As presented in table 4.1 above, 82% of the respondents are male, while the rest 18% are female. This shows that the majority of the respondents are male.

What is your educational qualification?

TABLE 2: SHOWING THE EDUCATIONAL QUALIFICATIONS OF THE RESPONDENTS

Educational qualification	No of respondents	Percentage (%)
WASSCE	35	17.5
OND/NCE	45	22.5
HND/B.Sc, B.Tech	108	54
M.Sc., MBA	12	6
Ph.D	-	-
TOTAL	200	100

Discussion: As presented in table above, 17.5% of the respondents have W.A.S.S.C.E, 22.5% of the respondents have OND/NCE, 54% of the respondents have their HND and DEGREE, 6% of the respondents have master 's degree, and none of the respondents have a P.HD. Therefore, majority of the respondents have either a Higher National Diploma(HND) or a Degree.

Which area in the port are you attached to?

TABLE 3: SHOW AREA WHERE RESPONDENTS WERE ATTACHED

Port areas	No of respondents	Percentage (%)
Shipping Companies	51	25.5
Stevedouring agents	22	11
Freight forwarders	43	21.5
Shipping agents	57	28.5
Logistics companies	27	13.5
Total	200	100

Discussion: As presented in Table above, 25.5% of the respondents are from Shipping companies, 11% are Stevedoring agents, 21.5% of the respondents are Freight forwarders, 28.5% of the respondents are from , while 13.5% of the respondents has one of the lowest number of respondents.

How many years have you worked in the firms?

TABLE 4: YEARS OF WORKING EXPERIENCE OF RESPONDENTS

Year(s)	No of respondents	Percentage (%)
0 – 1	8	4
1 – 2	18	9
3 – 5	62	31
6 – 10	94	47
11 and above	18	9
Total	200	100

Discussion: From Table above, 4% of the respondents don't have more than one year experience, 9% of the respondents have working experience of 1-2, 31% have working experience of 3-5 years, 47% of the respondents have working experience of 6-10 years and 9% of the respondents have working experience of 11 years and above.

Which method of Port pricing is adopted in Nigerian Ports?

TABLE 5: METHOD OF PORT PRICING

S/No	Methods of Port pricing	SA (5)	A (4)	N (3)	D (2)	SD (1)	Total	Weighted score	Rating
1	Discriminating Pricing	-	-	38	58	104	200	334	1.67
2	Cost-based Pricing	140	60	-	-	-	200	940	4.7
3	Congestion Pricing	48	72	58	22	-	200	746	3.73
4	Performance based Pricing	14	42	84	50	10	200	600	3.0
5	Optimal Pricing	116	52	22	10	-	200	874	4.37
6	Marginal Pricing	-	28	32	76	64	200	424	2.12

FIGURE 1: METHOD OF PORT PRICING ADOPTED IN NIGERIA
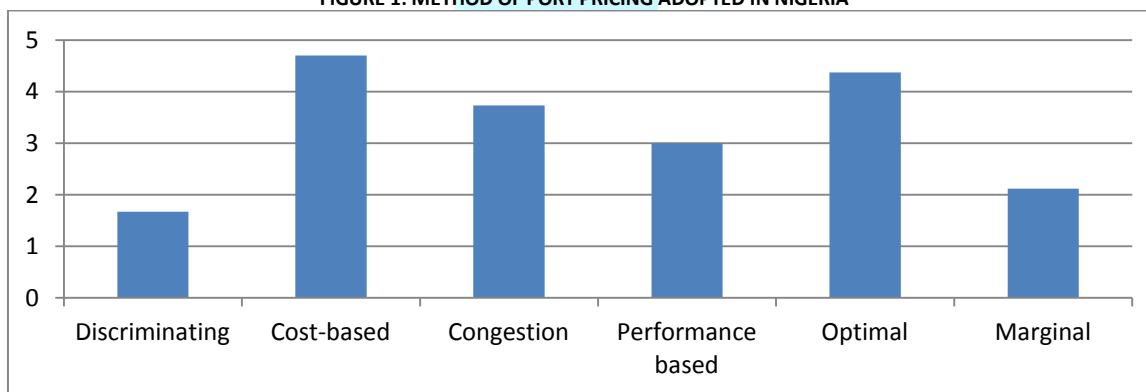
Discussion: From the table, it can seen that Discriminating port pricing has a rating of 1.67, Cost based pricing has a rating of 4.7 which is the highest, congestion pricing has a rating of 3.73, Performance based pricing has rating of 3.0, Optimal based pricing has a rating of 4.37 and Marginal pricing has a rating of 2.12. This shows that respondents strongly agree that Cost based pricing is the method of Port pricing adopted in Nigerian Ports.

High tariff structure leads to cargo diversion from Nigerian Ports?

TABLE 6: HIGH TARIFF STRUCTURE LEADS TO CARGO DIVERSION FROM NIGERIAN PORTS

Responses	No of respondents	Percentage (%)
SA	86	43
A	62	31
N	20	10
D	18	9
SD	14	7
TOTAL	200	100

FIGURE 1
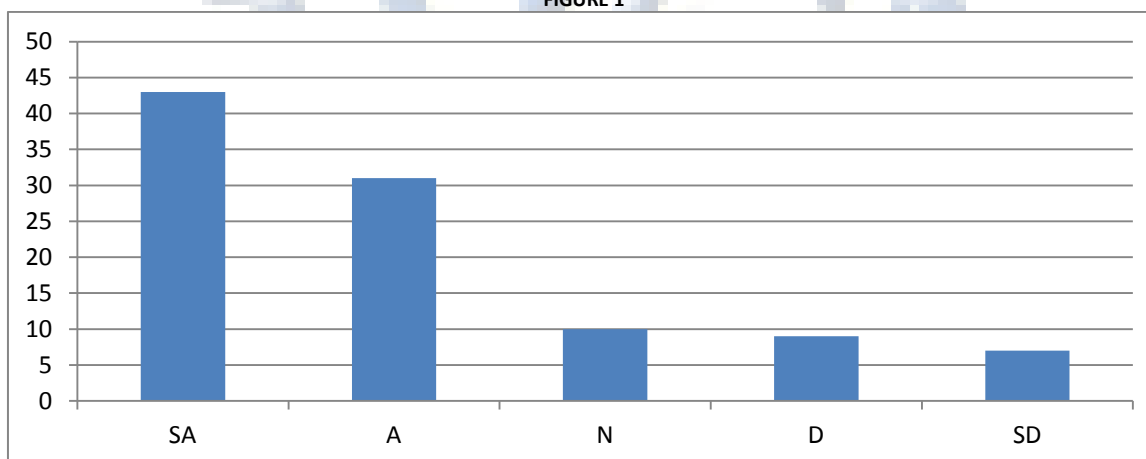
Discussion: From the Table, it can be seen that 74% of the respondents agree that high tariff structure leads to Cargo diversion from Nigerian Ports.

Increase in Port service price reduces demand for shipping services?

TABLE 7: INCREASE IN PORT SERVICE PRICE REDUCES DEMAND FOR SHIPPING SERVICES

Responses	No of respondents	Percentage (%)
SA	100	50
A	62	31
N	20	10
D	9	4.5
SD	9	4.5
TOTAL	200	100

FIGURE 3
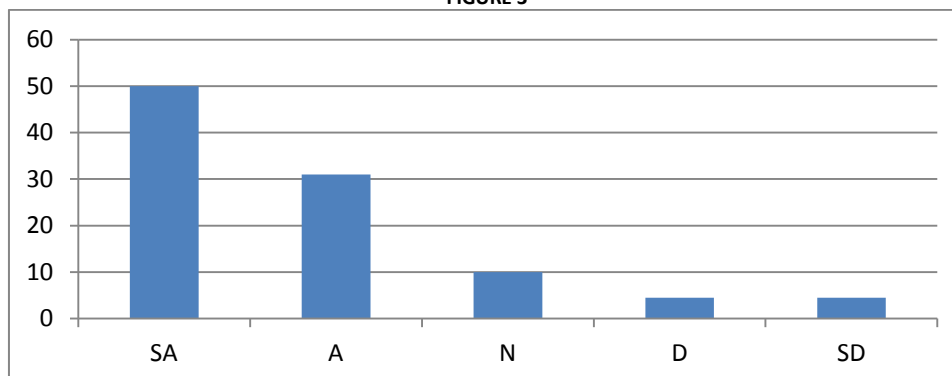
From the table, it can be seen that 81% of the respondents agree that increase in Port service price reduces demand for shipping services.

Increase in Port service price increases the price of import commodity?

TABLE 8: INCREASE IN PORT SERVICE PRICE INCREASES THE PRICE OF IMPORT COMMODITY

Responses	No of respondents	Percentage (%)
SA	94	47
A	59	29.5
N	15	7.5
D	18	9
SD	14	7
TOTAL	200	100

FIGURE 4
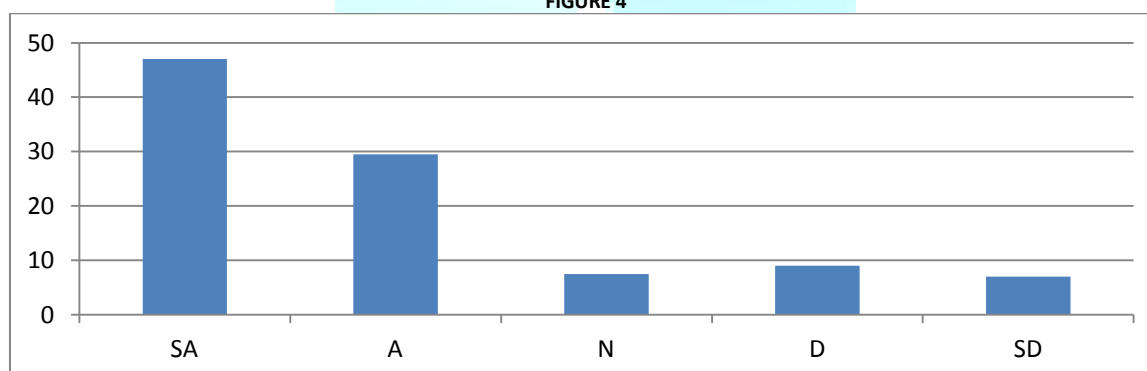
From the Table, it can be seen that 76.5% of the respondents agree that increase in Port service price increases the price of import commodity.

Poor port pricing affect the efficiency of Nigerian Ports?

TABLE 9:POOR PORT PRICING AFFECT THE EFFICIENCY OF NIGERIAN PORTS

Responses	No of respondents	Percentage (%)
SA	86	43
A	62	31
N	20	10
D	14	7
SD	18	9
TOTAL	200	100

FIGURE 5
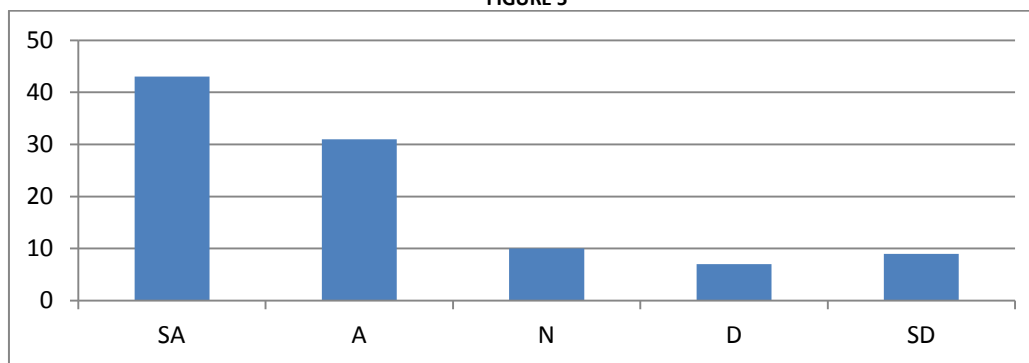
It can be seen that respondents agree that 74% of the respondents agree that Poor port pricing affect the efficiency of Nigerian Ports.

High and inflated Port pricing and tariff structure cause delay in clearing of cargo thereby leading to cargo congestion?

TABLE 10: HIGH AND INFLATED PORT PRICING AND TARIFF STRUCTURE CAUSE DELAY IN CLEARING OF CARGO THEREBY LEADING TO CARGO CONGESTION

Responses	No of respondents	Percentage (%)
SA	108	54
A	55	27.5
N	33	16.5
D	2	1
SD	2	1
TOTAL	200	100

FIGURE 6
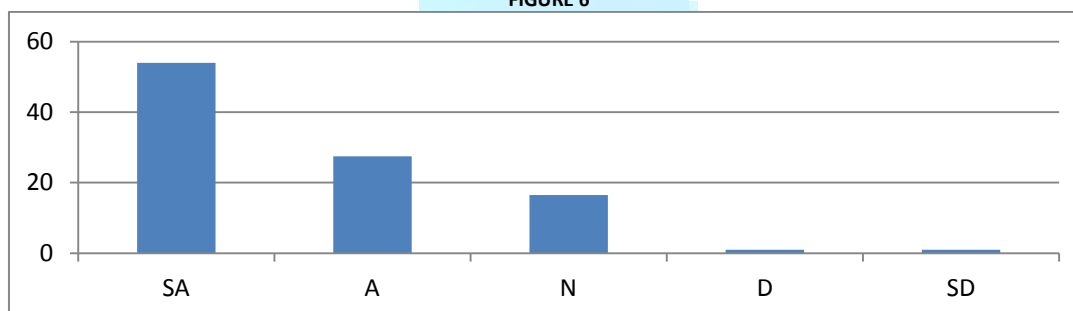
From the Table, it can be seen that 81.5% of the respondents agree that high and inflated Port pricing and tariff structure cause delay in clearing of cargo thereby leading to cargo congestion.

Increase tariff structure on vessels cause increased freight rates?

TABLE 11: INCREASE TARIFF STRUCTURE ON VESSELS CAUSE INCREASED FREIGHT RATES

Responses	No of respondents	Percentage (%)
SA	71	35.5
A	80	40
N	31	15.5
D	18	9
SD	0	0
TOTAL	200	100

FIGURE 7
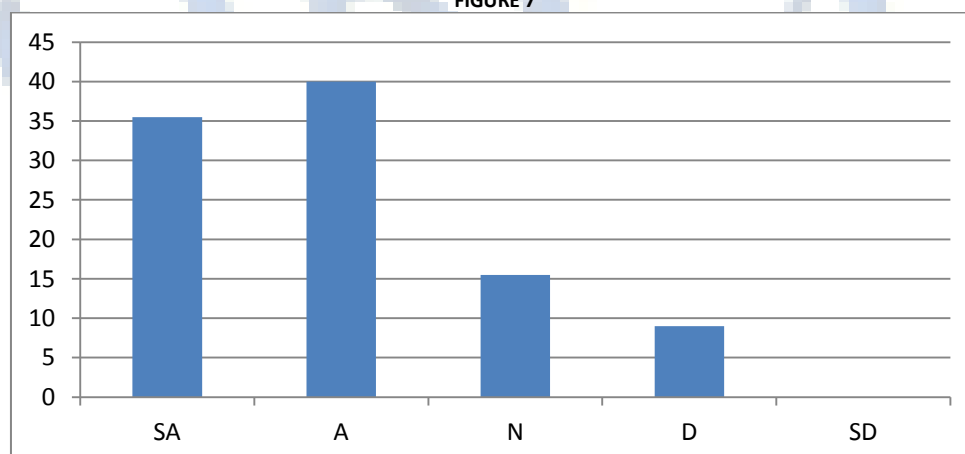
From the Table above, it can be seen that 75.5% of the respondents agree that Increase tariff structure on vessels cause increased freight rates.

There is a significant relationship between Port pricing and tariff structure and competitive advantage in our Ports?

<div align="center">

TABLE 11: RELATIONSHIP BETWEEN PORT PRICING AND TARIFF STRUCTURE AND COMPETITIVE ADVANTAGE IN OUR PORTS

Responses	No of respondents	Percentage (%)
SA	80	40
A	71	35.5
N	31	15.5
D	16	8
SD	2	1
TOTAL	200	100

</div>

FIGURE 8
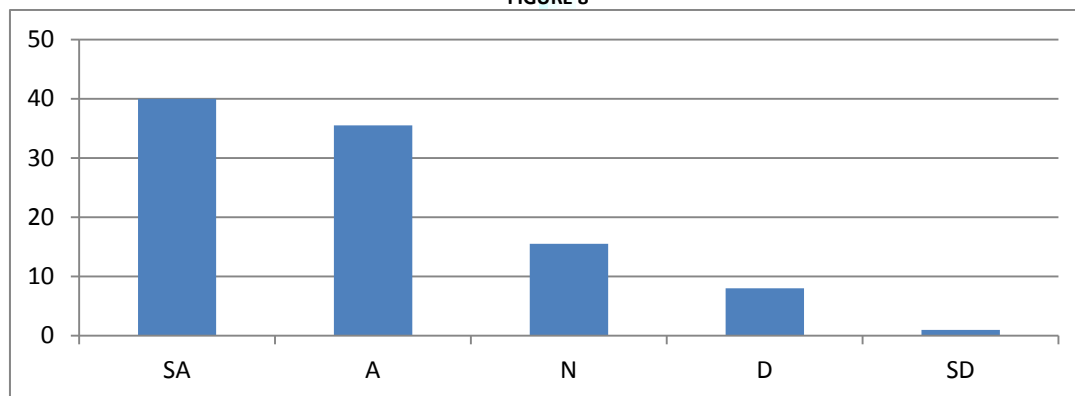
From the Table, it can be seen that the 75.5% of the respondents agree that Increase tariff structure on vessels cause increased freight rates.
There is a significant relationship between improved tariff structure and cargo throughput in Ports?

<div align="center">

TABLE 12: RELATIONSHIP BETWEEN IMPROVED TARIFF STRUCTURE AND CARGO THROUGHPUT IN PORTS.

Responses	No of respondents	Percentage (%)
SA	90	45
A	67	33.5
N	31	15.5
D	10	5
SD	2	1
TOTAL	200	100

</div>

FIGURE 9
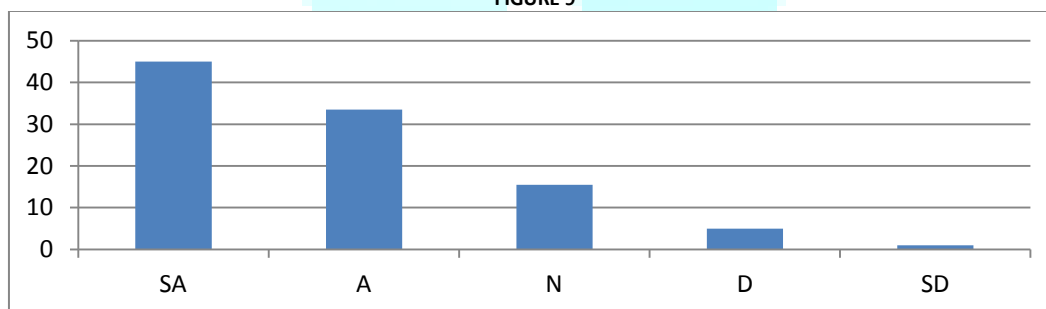
From the Table above, it can be seen that respondents agree that 78.5% of the respondents agree that improved tariff structure and cargo throughput in Ports.

TEST OF HYPOTHESIS
Restatement of hypothesis

H_{01}: There is no significant relationship between port pricing and tariff structure and competitive advantage in our ports.
H_{A1}: There is a significant relationship between port pricing and tariff structure and competitive advantage in our ports.
H_{02}: There is no significant relationship between improved tariff structures and cargo throughput in Ports.
H_{A2}: There is a significant relationship between improved tariff structures and cargo throughput in Ports.
H_{03}: There is no inverse relationship between Port service price and demand for shipping services.
H_{A3}: There is an inverse relationship between Port service price and demand for shipping services.

<div align="center">

RESPONSES	H1	H2	H3
SA	40	45	50
A	35.5	33.5	31
N	15.5	15.5	10
D	8	5	4.5
SD	1	1	4.5

</div>

DECISION RULE
1. The R value of the MODEL SUMMARY TABLE represents Simple correlation. If it is close to 1, then, there is a high degree of correlation, if it is close to zero; it indicates a low degree of correlation.
2. R^2 value of the MODEL SUMMARY TABLE indicates how much of the dependent variable can be explained by the independent variable.
3. The ANOVA TABLE indicates that the Regression Model predicts the outcome variable significantly well. If the significant column is less than 0.05, it means that the model applied can statistically significantly predict the outcome variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.847[a]	.899	.011	2.426

a. Predictors: (Constant), y

From Table above, it can be deduced that the Simple correlation value (R) = 0.847 indicating a high degree of correlation.

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.345	1	22.345	3.797	.0025[a]
	Residual	17.655	2	5.885		
	Total	40.000	3			

From Table above, it can be deduced that the model is statistically significant because Sig Column is 0.0025 which is the level of significance.
Therefore, the alternative hypothesis can be accepted and the null rejected. Thus,
There is a significant relationship between port pricing and tariff structure and competitive advantage of in our ports. When Port prices and dues are competitive and considerate, Nigerian ports will have competitive advantage over other neighbouring ports of West Africa and this will reduce cargo diversion drastically.
When this tariff structure is improved also, the cargo throughput in Nigerian Port will increase and boom. Also, it can be concluded that there is an inverse relationship between Port service price and the demand for shipping services, the demand for port services will improve if the port service price is reduced.

CONCLUSION
The pricing of port services and fixing appropriate tariff rates is an important tool for managing port operations and for attracting port user's patronage. Over the years, port pricing of services has never been static and there is no appropriate price for services rendered to users of the port. This has over the years affected our port cost of services within the port's system. Therefore, the government should make price of Port services, Port tariffs, dues e.t.c. to be moderate and competitive compared with our neighboring Ports. This will increase the demand for shipping service, solve the problem of cargo diversion and in turn increasing Government revenue accruing from the Port.

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CORPORATE SOCIAL RESPONSIBILITY AND THE CREATION OF COMPETITIVE ADVANTAGE IN TELECOMMUNICATIONS INDUSTRY IN KENYA: THE CASE OF SAFARICOM LTD AND AIRTEL KENYA

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ABSTRACT

The purpose of this study is to examine the influence of Corporate Social Responsibility (CSR) in firms' competitive advantages in the mobile phone industry. CSR concerns knowing managing and improving its impact on the economy, the environment and society. CSR activities have been hypothesized by many researchers to have influence on competitive advantage in industries characterised by stiff competition such as telecommunication. The target population consisted all mobile phone subscribers within Nakuru County from which a sample of 384 was obtained. Data was collected using a questionnaire and analysed using both descriptive and inferential statistics .The hypotheses of the study were tested by Pearson's Correlation and regression analysis. The findings of the study showed that CSR employed played a significant role in the creation of competitive advantage in both Safaricom and Airtel Mobile phone companies.

KEYWORDS

Corporate Social Responsibility, competitive advantage, Telecommunications industry, Safaricom, Airtel.

INTRODUCTION

Corporate Social Responsibility (CSR) is also known as corporate responsibility, corporate citizenship, responsible business, sustainable responsible business (SRB), or corporate social performance. CSR policy would function as a built-in, self-regulating mechanism whereby business would monitor and ensure their adherence to law, ethical standards, and international norms. Business would embrace responsibility for the impact of their activities on the environment, consumers, employees, communities, stakeholders and all other members of the public sphere. Furthermore, business would proactively promote the public interest by encouraging community growth and development, and voluntarily eliminating practices that harm the public sphere, regardless of legality.

In a competitive environment, services are gaining increasingly more importance in the competitive formula in both firms and countries. Governments, activists and the media have become adept at holding companies to account for the social consequences of their activities. Myriad organizations rank companies on the performance of their corporate social responsibility (CSR), and despite sometimes questionable methodologies, these rankings attract publicity. As a result, CSR has emerged as an inescapable priority for business leaders (Porter & Kramer, 2006). In order to optimize on CSR activities and create competitive advantage companies must have knowledge and deep understanding its strategic engagement.

Today's organisation is judged by criteria, which is very different from those of two decades ago. It has not only to be efficient to satisfy the industrialist through earning increased profits or satisfy the investor and the financier by paying more dividends but it has also to be conscious of its wider societal needs. Increasingly today, people are arguing that government alone cannot deal with those pressing social issues such as unemployment, provision of education, health care and environmental preservation. They insist that corporations have an obligation to contribute to solving these problems. Organizations are sub-systems of society and operate and get their resources from the society (Kivuva 2003)

TELECOMMUNICATION INDUSTRY IN KENYA

Telecommunication industry has undergone tremendous innovations with the proliferation of information and communication technology (ICT) following the deregulation and liberalization of telecommunication sector in 1997. The government of Kenya separated the then giant Kenya Posts and Telecommunication Company (KPTC) into three entities. Postal Corporation of Kenya (PCK) dealt with the handling of mails and Telkom Kenya dealt with landlines while Safaricom Ltd and Airtel Kenya Kenya were licensed to operate mobile phone services.

Consequent to the deregulation of the Telecom industry in 1997, Safaricom that is the leading mobile operator in Kenya, with a current subscriber base in excess of 12 million was formed. Faced with stiff competition from KenCell which later became Zain and now Airtel, Safaricom that was a wholly owned subsidiary of Telkom Kenya had to change tact in order to survive the onslaught of KenCell. Using its name as its logo, Safaricom's positioning statement 'The Better Option' underscored the brand's ambition to retain the current status of its mother brand – Telkom. During this period, the power of information technology, deregulation, changes in legislation, globalization of markets and stiff competition had made consumers more educated, more inquisitive and demanding. With a changed environment, serious marketing challenges arose for firms to survive and remain profitable. According to Charles and Gareth (1998), in today's global environment, change rather than stability is the order of the day. Rapid changes in technology, competition, and customers' demands have increased the rate at which companies need to alter their strategies and structures to survive in the market place. In their strategic response to these imperative changes, companies seek to strengthen their existing core competencies and build new ones in order to compete more effectively by going through a strategic change. Charles and Gareth (1998) define strategic change as "the movement of a company from its present state to increase its competitive advantage".

Hillman and Keim (2001) identify CSR activities as a form of corporate differentiation that generates a competitive advantage, for example in securing investment capital. Both Safaricom and Airtel Kenya have taken cognizance of the fact with the power of information technology, deregulation, changes in legislation, globalization of markets and stiff competition had made consumers more educated, more inquisitive and demanding (Capron and Holland, 1999 as quoted by Wambugu (2002) The customers are better educated, more inquisitive, sophisticated and deciding. Customer's expectations are high on issues of social responsibility from firms. The challenge has been for the firms to engage in social responsive activities and to create distinct products that are easily distinguishable, valuable and mutually beneficial to the firms and society. CSR programs have a central objective of earning the firm's competitive advantage over other participants in the industry.

Both Safaricom and Airtel have engaged themselves in CSR activities . For Safaricom , the initiatives have been implemented through the Safaricom Foundation. The activities include community service, education, environment, employee and products and services. On community service Safaricom seeks to make positive contribution to the community both through financial support and employee involvement in Health care, environmental protection, sports, culture and education.

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Airtel on the other hand builds and operates world-class communications networks that deliver reliable and competitive services, is committed to enhancing positive social effects by investing in projects such Water and Environment, Education and health, Arts and Heritage that are aimed at enhancing the quality of life in Kenya. On issues of health and education Airtel Kenya donated relief food to famine victims in the country and donated mobile phones and air time to relief agencies such as the Kenya Red Cross Society (KRCS). Airtel Kenya contributes to education by supporting various schools in terms of contributing learning materials such as books, and financial support to various schools across the country, for example the Starehe girls centre, where it has given books, fees. On arts and heritage Airtel Kenya is committed to supporting and nurturing talent among the youth. The company is a major sponsor of the Africa Education Journalism Award and the Kenya Music festival. It has sponsored the East Africa Universities challenge, a programme which brings talented students across East Africa together in exiting contests aired on Television across the three countries. It has also concentrated on building new talent in music and theatre.

Empirical evidence shows a positive association between corporate social and environmental performance and corporate financial performance (Orlitzky, et al, 2003). CSR offers a sustainable competitive advantage to an organization because it creates a good relationship between the organization and the society, which is good for business.

STATEMENT OF THE PROBLEM

The mobile telephony industry is relatively new in Kenya. In their efforts to maximize on their potential and profits these companies have significantly participated in CSR activities in different areas. Safaricom Ltd through CSR arm Sataricom Foundation has contributed over 1.8 Billion shillings in supporting more than 700 projects across the country for the last 10 years while Airtel Kenya through their philosophy to support education and community development has substantially invested its CSR global fund in Kenya. Previous studies have demonstrated a positive relationship between corporate social responsibility and organizational performance (Orlitzky, et al, 2003). Despite the commitment and the resources that the two leading operators; Safaricom and Airtel Kenya have put into the CSR activities, it has however not been established the extent to which CSR strategies have influenced these mobile firms' competitive advantage. This study therefore focused on examining the influence of CSR activities in creating the firms' competitive advantage in the mobile phone industry in Kenya.

OBJECTIVES OF THE STUDY

The main objective of the study was to assess the influence of CSR on firm's competitive advantage comparing Safaricom and Airtel mobile phone providers in Kenya. The study was guided by the following specific objectives :

1.   To determine the extent to which the type of CSR engagement contributes to the competitive advantage achieved by Safaricom Ltd and Airtel Kenya
2.   To assess the level to which CSR awareness among customers plays a role in creation of competitive advantage achieved by Safaricom Ltd and Airtel Kenya
3.   To determine the role of CSR benefits to customers on competitive advantage achieved by Safaricom Ltd and Airtel Kenya.

RESEARCH HYPOTHESIS

The research was guided by the following hypotheses

Ho_1: The type of CSR engagements contribute differently to the competitive Advantage achieved by Safaricom Ltd and Airtel Kenya

Ho_2: CSR awareness among customers of Safaricom Ltd and Airtel Kenya differ in their role of creating competitive advantage

Ho_3: CSR benefits to customers differ in their role of creating competitive advantage achieved by Safaricom Ltd and Airtel Kenya.

LITERATURE REVIEW

CSR refers to the obligations of organizations to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society. Governments, activists and the media have become adept at holding companies to account for the social consequences of their activities.

CSR helps firms in their quest for organizational legitimacy. Firms are under the obligation not to abuse the power invested on them by society or they risk losing society's implicit endorsement. CSR holds that business should assume a leading role in making the world a better place: they should demonstrate corporate citizenship. This is taken to mean endorsing and pursuing the objective of sustainable development. CSR supporters presume, mistakenly, that the notion of sustainable development is well defined and universally agreed (Henderson, 2001).

The concept of corporate social responsibility and environmental management has also emerged as an important consideration for most organizations (Brown, 2003). There is increased pressure for organizations to become accountable to a wider set of stakeholders than just shareholders and creditors (Hackston and Milne, 1996), and it is argued that by promoting CSD and social responsibility, there will be benefits for organizations and society (Hall, 2002). The real emphasis of CSR is to encourage responsible business practices and thereafter community involvement. CSR is seeking to enhance the well-being of critical stakeholders such as employees, suppliers, stakeholders, and consumers. CSR is simply about how the business makes money and not how it uses its profits (Kivuitu, 2003).

COMPETITIVE ADVANTAGE

Competitive advantage is implementing a value- creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are not able to duplicate the benefits of this strategy (Barney, 2002). "A competitive advantage is the unique positional an organization develops vis a vis its competitiors through its pattern of resources deployments and/or scope decisions'' (Hoffer &Schendel, 1978). " The term competitive advantage is the ability gained through attributes and resources to perform at a higher level than others in the same industry or market'' (Porter,1980). "To gain competitive advantage a business strategy of a firm manipulates the various resources over which it has direct control and these resources have the ability to generate competitive advantage'' (Reed &DeFillippi, 1990) . "Any business with a competitive advantage is able to attract more customers than its competitors by having some special vectors that no one else possesses'' (Mitch McCrimmon, 2008)

For any company strategy must go beyond best practices. It is about choosing a unique position and doing things differently from the competitor in a way that lowers costs or better serve a particular set of customer needs. Firms that invest in CSR have a competitive advantage in terms of service to the community which can contribute to the well- being and the success of the organization and to increase the market share. It is assumed that firms with a defined corporate commitment to ethical principles do better financially (based on annual sales/revenues) than companies that do not engage in CSR activities. They also have an enhanced brand image, reputation, an increased ability to retain quality work force, more effective risk management (Barney, 1991).

A firm may acquire valuable resources through history that cannot be replicated by other firms, such as positioning the firm in a valuable geographic location, being in a position to exploit a significant scientific breakthrough, or the development over time of a unique organizational culture (Barney, 1991). Socially-complex resources are created from the coordinated action of a large number of people, such as a dynamic corporate culture or a highly-regarded corporate reputation (Dierickx and Cool, 1989). These types of socially-based resources could be categorized in a similar way to the relationships an organization might hold with its stakeholders. Both historically-unique and socially-complex resources are particularly valuable because they have a high degree of sustainability of a firm's competitive advantage due to their low level of substitutability (Barney, 1991). The competitive advantage is held by the firm while it is difficult for competitors to duplicate the successful approach (Lippman and Rumelt, 1982).

Porter and Kramer (2006) argue that for any company, strategic CSR must go beyond best practices. It is about choosing a unique position – doing things differently from competitors in a way that lowers costs or better serves a particular set of customers' needs. Strategic CSR moves beyond good corporate citizenship and mitigating harmful value chain impacts to mount a small number of initiatives whose social and business benefits are large and distinctive. It unlocks shared value by investing in social aspects of context that strengthen company competitiveness. A symbiotic relationship develops: The success of the company and the success of the community become mutually reinforcing.

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When a firm sustains profits that exceed the average for its industry, the firm is said to possess a competitive advantage over its rivals. The goal of much of business strategy is to achieve a sustainable competitive advantage. Porter identified two basic types of competitive advantage: cost advantage and differentiation advantage (Porter and Kramer, 2002)

THEORETICAL FRAMEWORK

The study was based on the Resource-Based View (RBV) of the firm or on the resource based theory by Hart (1995) . The RBV framework states that some firms are able to establish a sustainable competitive advantage through the resources or capabilities created from environmental responsibility programmes.

The RBV approach assumes that firms do not have an equal endowment of strategic resources and that resources are not perfectly mobile between firms. Three categories of resource are identified: physical capital resources such as physical technology, plant and equipment, geographic location, access to raw materials, human capital resources including the training, experience, judgment, intelligence, relationships, and insight of individual managers and workers; and organisational capital resources such as reporting structures, formal and informal planning, controlling and coordinating systems, and informal relations within a firm and between a firm and those in its environment .

The RBV stipulates that CSR activities should generate a resource for the firm that is a source of competitive advantage. The view was expounded on by McWilliams and Siegel (2001) by establishing that the level of investment that any specific firm should make in CSR programmes be based on cost-benefit analysis. The framework argues that the firm will invest in CSR to the extent to which consumers or other stakeholders value the 'social' attribute of the firm or product. Consumers seek CSR attributes because they wish to support firms that devote resources to CSR, or value the intangible attributes such as a reputation for quality and reliability that may be associated with firms engaged in CSR.

Golob and Bartlett (2007) acknowledge that CSR initiatives benefit stakeholders and consequently lead to competitive advantage. Strategic CSR has a positive correlation with financial performance and a negative correlation with altruistic CSR (Hillman and Keim, 2001). Stakeholder management investments provide a basis for competitive advantage by creating resources and capabilities for the firm that are difficult for competing firms to emulate or substitute. By developing longer-term interactions with stakeholders that are relational rather than transactional, the firm develops a capacity to expand its set of value-creating exchanges with customers, suppliers, employees, and communities that cannot be readily copied (Hillman and Keim, 2001). The firms with high level of corporate abilities generate positive market value from CSR actions. When coupled with high corporate abilities, CSR actions of a firm can generate favourable attributes and customer identification, thus leading to performance enhancing behaviours like customer loyalty.

CONCEPTUAL FRAMEWORK
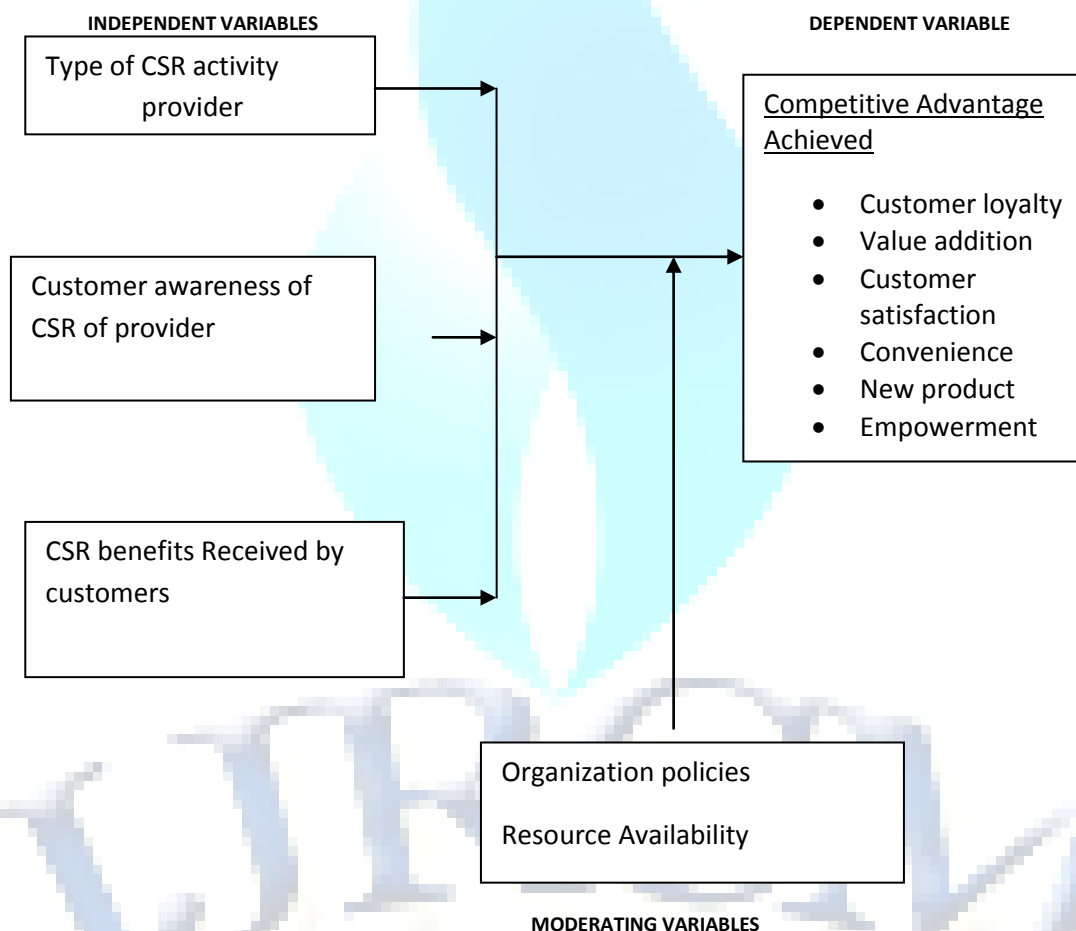
The role of CSR on Firms' Competitive Advantages

RESEARCH METHODOLOGY

RESEARCH DESIGN

The study employed a cross-sectional survey design. According to Owens (2002), Cross-sectional surveys involve collection of data whereby, data is collected at one point in time from a sample selected to represent a larger population. The design is an efficient method of collecting descriptive data regarding characteristics of a sample of a population, current practices, conditions or needs and preliminary information for generating research questions. In this study the researcher dealt with these weaknesses of the cross-sectional survey by selecting a sample through randomization and using a relatively large sample size of the of mobile phone customers.

TARGET POPULATION

The target population was all mobile phone customers living within Nakuru Municipality. According to the population census of 1999 the approximate population was 300,000 people. The number of mobile users in the town is very dynamic and no exact figures are available since most of the customers are also highly mobile. The study was specifically focused on mobile phone customers who were using Safaricon and Airtel service. However some of the subscribers were using both Safaricom and Airtel services and for this research, they were requested to choose their most preferred provider in their feedback.

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SAMPLING DESIGN AND SAMPLE SIZE DETERMINATION

The customers' study sample size was determined using the formula provided by Mugenda and Mugenda (1999).

$$n = \frac{Z^2 pq}{d^2}$$

Where

N	=	the desired Sample size (if the population is greater than 10,000).
z	=	the standard normal deviate at the required confidence level
p	=	the proportion of the target population estimated to have characteristics being measured.
q	=	1-p
d	=	the level of significance set

Since p and q are unknown, both are set at 0.5, z = 1.96 and the study desires accuracy at 0.05 significance level, Thus, the sample size n will be:

$$n = \frac{(1.96)^2 (0.50)(0.50)}{(0.05)^2} = 384 \text{ respondents}$$

To ensure adequate representation of both firms in the study, the sample was divided as per the national subscriber numbers in the ratio of 12 million from Safaricom to 4 million subscribers for Airtel giving a distribution of 288 respondents for Safaricom and 96 respondents for Airtel. Quota sampling was used where those who were using both subscribers' services were requested to indicate their most preferred and grouped into their respective provider.

INSTRUMENTATION

For purposes of collecting primary data, the study used a questionnaire containing structured questions. The questionnaire was developed to establish the information on the levels of respondents' knowledge of CSR; they were developed on the basis of research objectives and hypothesis. The questionnaires were used to collect information related to type, extent of use and benefits of corporate social responsibility approaches used by the mobile phone service providers and their relative competitive advantages.

A multi stage sampling procedure using both quota and systematic sampling was used. Nakuru town was first divided into the regions: West, Central and East and three research assistants who were trained on data collection were assigned each of the regions and given 128 questionnaires to administer with the researcher closely supervising to ensure the process was done as accurately as possible. Systematic sampling was used to select the individual respondents where every tenth adult met and were willing were given the questionnaire to fill. This was done street wise until all the 128 questionnaires were filled per region. The purpose of the study was first explained to the respondent and in cases where they subscribed to both operators; they were requested to base their response on their preferred network.

RELIABILITY AND VALIDITY OF RESEARCH INSTRUMENT

A pilot study was conducted with 10 questionnaires two weeks before the study, in Njoro town amongst the customers of Safaricom and Airtel Kenya to test the reliability of the questionnaire. A Cronbach test was carried out yielding a value of 0.77, which was greater than 0.7 considered minimum acceptable levels of reliability in most social research (Mugenda & Mugenda, 1999). To examine its validity, expert judgment was sought, where the research supervisor and other experts in research were consulted. All arising issues in the instrument were identified and corrected

DATA ANALYSIS

The responses to the various items were first coded then keyed in a matrix to facilitate ease of coding and entry in to SPSS analysis software. Both descriptive (frequencies percentages and mean) and inferential statistics was used in the analysis. The role of the type of CSR engaged in by the provider in creation of competitive advantage was tested using logistic regression while the contribution of CSR awareness and benefits received by the customers to competitive advantage was tested using Pearson's correlation. The variables involved in the analysis were as indicated in Table 3.5.1

RESULTS AND DISCUSIONS

The data was successfully collected from all the 384 expected questionnaires based on desired sample proportions of 288 for Safaricom to 96 for Airtel. Preliminary screening of the questionnaires led to 16 questionnaires being disqualifies due to incomplete response. The remaining 368 questionnaires representing 95% with valid response in a proportion of 224 for Safaricom, 76 for Airtel and 68 who used both were used as a basis for this analysis.

DEMOGRAPHIC INFORMATION

To understand the general characteristics of the respondents, analysis was done on several attributes and the outcome was as presented below:

GENDER OF THE RESPONDENTS

Each of the respondents was requested to indicate their gender as one of the key attributes of mapping out respondent's characteristics. Their responses were as provided in Table 1 below:

TABLE 2: GENDER

Gender	Count	Percent
Male	174	47.3%
Female	194	52.7%
Total	**368**	**100%**

From the analysis 47.3% of the respondents were male while 52.7 % were female. This shows a near balance of both genders in the analysis with a tilt towards more female. This provided a balanced view of both gender in relation to the content of the study.

MOBILE SERVICE PROVIDER

The next attribute to be evaluated was their choice of mobile phone provider and the outcome was as presented in table 4.2.2 below:

TABLE 3: MOBILE PHONE SERVICE PROVIDER

Provider	Count	Percent
Safaricom	224	60.9%
Airtel	76	20.7%
Both	68	18.5%
Total	**368**	**100%**

Proportionately, (60.9%) of the respondents involved in the study were Safaricom users while 20.7% were using the Aitel services. Notably 18.5 % of the providers were using both service providers. This clearly supports the market share of the two service providers. The respondents were further asked to indicate their preferred service provider which was to provide a clear choice on which analysis will be based. Their responses were as indicated in table 4.2.3 below:

TABLE 4: PREFERRED SERVICE PROVIDER

Preferred Provider	Count	Percent
Safaricom	279	75.5%
Airtel	89	24.2%
Total	**368**	**100%**

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The final proportion of the respondent's service provider after identifying the most preferred provider were 75% for Safaricom to 24.2% for Airtel indicating that 79.4 % of those who used both providers preferred Safaricom and 20.6% preferred Airtel giving Safaricom a three quarters proportion of market share as compared to a quarter for Aitel.

PERIOD OF SUBSCRIPTION

The researcher also sought to establish the length of time that the respondents have been using the preferred providers' services as an indication of their knowledge in their CSR activities. Their responses were as indicated in Figure 4.2.4 below:

TABLE 5: YEARS OF USING THE PROVIDER'S SERVICE

Preferred Provider		Length of Use				Total
		Below 1 Year	Between 1-3 Years	Between 4-5 Years	Over 5 years	
Safaricom	Count	10	77	49	143	279
	% of Total	2.7%	20.9%	13.3%	38.9%	75.8%
Airtel	Count	4	20	22	43	89
	% of Total	1.1%	5.4%	6.0%	11.7%	24.2%
Total	Count	14	97	71	186	368
	% of Total	3.8%	26.4%	19.3%	50.5%	100.0%

Slightly more than half (50.5%%) of all the respondents had used their current providers for over 5 years of which 38.9% percents were Safaricom users and 11.7% were Airtel users. this was followed by those who used the providers services for between 1-3 years with a representation of 26.4 % 20.9% of which were Safaricom users while 5.4 % were Airtel users. Those who had between 4-5 years of engaging the services of the providers were represented by 19.3 % where 13.3% were Safaricom users and 6% being Airtel users. The least represented category were those who had less than 1 year engagement with their current provider (3.8%) of which 2.7% and 1.1% were representing Safaricom and Airtel users respectively . Users of both providers exhibited a common increasing trend for providers with the majority having used their services for over five years. For this study trend give more confidence on the information provided as an indication of most participants have a clear understanding of providers competitiveness and their CSR activities.

RESPONDENTS' AWARENESS OF CSR

The researcher first sought to establish if the respondents were knowledgeable about the concept of CSR and their responses are presented in Figure 4.2.5.

FIGURE 2: KNOWLEDGE ON CSR
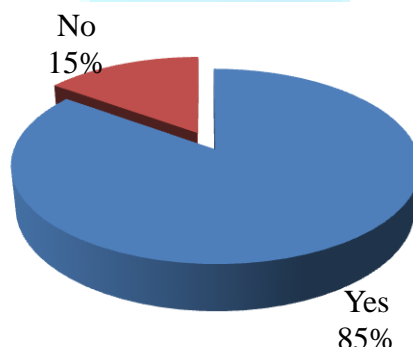
A majority of the respondents (85%) were aware of the CSR concept while 15% were not conversant with the concept. This is clear that most of the respondents were knowledgeable in the research area further supporting the validity of the information received for the study.

CSR ACTIVITIES INVOLVED IN BY THE PROVIDERS

It was important that the research sought the respondents' knowledge of the specific CSR activities that the two operators were engaged in. their response were as presented in Table 4.3.1 below:

TABLE 6: KNOWLEDGE OF CSR ACTIVITIES SUPPORTED BY THE PROVIDERS

CSR Activity		Safaricom		Airtel	
		Yes	No	Yes	No
Environmental Protection	Freq	193	86	69	20
		69.2%	30.8%	77.5%	22.5%
Access to clean Water	Freq	119	160	36	53
		42.7%	57.3%	40.4%	59.6%
Promote Culture & Heritage	Freq	180	99	63	26
		64.5%	35.5%	70.8%	29.2%
Promotes Quality Healthcare	Freq	167	112	64	25
		59.9%	40.1%	71.9%	28.1%
Affordable Products & services	Freq	223	56	71	18
		79.9%	20.1%	79.8%	20.2%
Community service	Freq	208	71	69	20
		74.6%	25.4%	77.5%	22.5%
Promotes Sports	Freq	239	40	77	12
		85.7%	14.3%	86.5%	13.5%
Sponsor Education for the Needy	Freq	209	70	65	24
		74.9%	25.1%	73.0%	27.0%

The feedback from the analysis indicated that 69% were aware of Safaricoms' engagement in environmental protection activities while 77% recognized Airtel participation in the same. On support for access to clean water 42.7% and 40.4% were aware of Safaricom and Airtel participation while 64.5% and 70.8% were aware of their support for promotion of culture and heritage activities. Further, 59.9%, and 71.9% identified their participation on promotion of healthcare respectively.

On provision of affordable products and services, 79.9% and 79.8% of Safaricom and Airtel customers indicated that they were aware of the providers' participation. On the support to community service, promotion of sports and sponsoring education for the needy, 74.6%, 85.7% and 74.9% of Safaricom customers had knowledge their providers' participation while 77.5%, 86.5% and 73% of Airtel customers indicated the same respectively. In general it was clear that more than half of the respondents were aware their provider's participation in the various CSR activities highlighted in the study.

EXTENT TO WHICH THE PROVIDERS ARE ENGAGED IN THE CSR ACTIVITIES

The research went further and sought the extent to which the providers were using them. Their feedback was as presented in Table 4.4.1 below;

TABLE 7: RATING ON KNOWLEDGE OF OPERATORS CSR ACTIVITIES

	Provider	Response					
		SD	D	N	A	SA	Mean score
Employed many Kenyans	Safaricom	2.2%	1.8%	7.9%	30.5%	57.7%	4.40
	Airtel	6.7%	0%	11.2%	34.8%	47.2%	4.16
Sell Environmentally friendly Products	Safaricom	8.2%	14.7%	31.5%	29.0%	16.5%	3.31
	Airtel	9.0%	9.0%	36.0%	30.3%	15.7%	3.35
Sponsors Sports	Safaricom	3.2%	2.5%	13%	36.9%	43.7%	4.15
	Airtel	5.6%	4.5%	18.0%	27.0%	44.9%	4.01
Sponsor street children Rehabilitation	Safaricom	7.2%	13.3%	29.7%	29.7%	20.1%	3..42
	Airtel	4.5%	14.6%	32.6%	22.5%	25.8%	3.51
Country wide Network	Safaricom	2.9%	2.5%	3.9%	30.1%	60.6%	4.43
	Airtel	5.6%	2.2%	10.1%	27.0%	55.1%	4.42
Works with Police	Safaricom	6.5%	10.4%	20.4%	29.7%	33.0%	3.75
	Airtel	11.2%	6.7%	19.1%	28.1%	34.8%	3.69
Sponsor HIV AIDS programs	Safaricom	8.6%	6.5%	41.2%	29.7%	14.0%	3.34
	Airtel	11.2%	5.6%	43.8%	23.6%	15.7%	3.27
Poverty Eradication	Safaricom	3.9%	11.5%	24.7%	42.7%	17.2%	5.58
	Airtel	7.9%	9.0%	28.1%	28.1%	27.0%	3.57
Gender Empowerment	Safaricom	3.9%	15.4%	33.7%	34.8%	12.2%	3.36
	Airtel	10.1%	7.9%	36.0%	31.5%	14.6%	3.33
Human Rights Sponsor	Safaricom	6.1%	12.5%	37.6%	33.3%	10.4%	3.29
	Airtel	5.6%	14.6%	32.6%	28.1%	19.1%	3.40
Sponsor Medical Camps	Safaricom	5.7%	15.1%	36.2%	23.7%	19.4%	3.36
	Airtel	5.6%	10.1%	29.2%	39.3%	15.7%	3.49
Natures Talents	Safaricom	4.3%	7.2%	15.1%	36.2%	37.3%	3.95
	Airtel	5.6%	2.2%	23.65	30.3%	38.2%	3.93
Engages in ethical business	Safaricom	2.9%	9.7%	17.2%	37.3%	33.0%	3.88
	Airtel	4.5%	11.2%	14.6%	27.0%	42.7%	3.92
Provides Tailor made Products	Safaricom	3.9%	6.5%	18.6%	44.1%	26.9%	3.84
	Airtel	5.6%	3.4%	30.3%	30.3%	30.3%	3.76
Supports Educational Programs	Safaricom	5.4%	7.9%	19.7%	37.3%	29.7%	3.78
	Airtel	3.4%	9.0%	27.0%	31.5%	29.2%	3.74
Support Health & Safety Programs	Safaricom	6.1%	10.0%	28.7%	37.6%	17.6%	3.57
	Airtel	4.5%	6.7%	36.0%	29.2%	23.6%	3.61
Support culture and heritage	Safaricom	9.0%	10.0%	21.9%	38.7%	20.4%	3.52
	Airtel	6.7%	3.4%	34.8%	23.6%	31.5%	3.57

Where: **SA** strongly Agree. **A** Agree. **N** Neutral. **D** Disagree. **SD** strongly Disagree

From the results of the analysis as presented in table above, Majority of the respondents (57.7% and 47.2%: Mean 4.40 and 4.16) were in strong agreement that their provider has employed many Kenyans. On whether they agree with the concept that their provider was selling environmentally friendly products, majority were neutral with a representation of 31.5% and 36% (Mean 3.31 & 3.35) for Safaricom and Airtel respectively.

However, a majority of both set of customers strongly agreed (43% and 44.9%, Mean: 4.15& 4.01) that their provider was engaged in sponsoring sport activities. An equal percentage of Safaricom customers (29.7% Mean 3.42) were neutral and did agree that Safaricom was in support of street children rehabilitation while a majority (32.6%Mean 3.51) of Airtel subscribers were neutral. Both set of respondents strongly agreed that their provider had a nationwide network coverage as represented by 60.6% and 55.1% (Mean: 4.43 & 4.24) for Safaricom and Airtel respectively. The respondents rating of their providers supports for security by working with the police resulted in a majority (33% & 34.7%, Mean: 3.72 &3.69) indicating strong agreement for Safaricom and Airtel respectively.

The level of support that the providers were giving to HIV and AIDs programs received an neutral response for both of the providers with 41.2% & 43.8% (Mean: 3.34& 3.27) forSafaricom and Airtel respectively while an equal proportion (28.1% Mean 3.58) of Airtel users were equally neutral and in agreement as compared to 42.7% (Mean: 3.57) for Safaricom users who were in agreement. Gender equality promotion and sponsoring human rights received an neutral verdict for both providers with 33% &37% (Mean: 3.36& 3.33) and 36% & 32% (Mean: 3.29& 3.40) for Safaricom and Airtel customers respectively.

Sponsoring medical clinics saw a majority (36.2% Mean: 3.36) of Safaricom customers neutral while most (39.3% Mean: 3.49) Airtel customers were in agreement. When the concept of nurturing talent was evaluated, the outcome received a majority (37.3% & 38.2% Mean: 3.95& 3.93)) rating for both provides was a strong agreement. Engagement in ethical business was by the majority (37.3% Mean 3.88) of Safaricom customers were given a rating of an agreement. The same element received a strong agreement (42.7% Mean 3.92) by Airtel users. As to whether their providers were providing tailor made products, a majority (44.1%, Mean 3.88) of Safaricom were in agreement while Airtel customers equally gave a 30.3% (Mean 3.92) for strong Agreement**.**

Consensus rating of an agreement for support of educational activities was received with 37% & 31% (Mean: 3.84& 3.92) respectively for Safaricom and Airtel customers. Finally, majority (37% & 38% Mean: 3.51& 3.61) of Safaricom users gave their provider an agreement in support health safety and cultural activities while on the same, a majority (36% & 34%, Mean: 3.52& 3.70) of Airtel respondents were neutral. From the response it was evident that most respondents were in agreement of their providers support for CSR activities.

BENEFITS ACHIEVED THE PROVIDER FOR ENGAGING IN CSR

The respondents were requested to indicate the extent to which they agree with the benefits enjoyed by their provider to have associated with their engagement in CSR activities. Their response were as summarized in Table 4.5.1 below

TABLE 8: BENEFITS AND CSR ENGAGEMENT

Response	Provider	SD	D	N	A	SA	Mean
Offers Superior Services Quality	Safaricom	3.30%	3.90%	10.00%	41.90%	40.90%	4.13
	Airtel	2.30%	6.70%	9.00%	41.60%	40.40%	4.11
Better Satisfying Services	Safaricom	2.50%	4.30%	9.00%	45.20%	39.10%	4.15
	Airtel	5.60%	6.80%	11.20%	34.80%	41.60%	4.12
Handles Complaints Efficiently	Safaricom	2.20%	3.90%	11.80%	40.90%	41.20%	4.14
	Airtel	2.20%	5.60%	9.00%	43.90%	39.30%	4.00
Enjoys flexible market	Safaricom	4.30%	4.70%	14.70%	41.20%	35.10%	3.98
	Airtel	2.20%	2.20%	16.90%	41.60%	37.10%	4.09
Enjoy Higher societal standing	Safaricom	2.50%	4.70%	15.10%	43.00%	34.80%	4.03
	Airtel	4.50%	1.10%	14.60%	37.10%	42.70%	4.12
Greater customer loyalty	Safaricom	1.40%	3.90%	12.90%	44.40%	37.40%	4.12
	Airtel	1.10%	6.70%	18.00%	34.80%	39.40%	4.04
Greater market share	Safaricom	2.50%	2.90%	7.50%	34.10%	53.00%	4.32
	Airtel	2.20%	2.20%	7.90%	37.10%	50.60%	4.31
Better customer relationship management	Safaricom	1.10%	4.70%	14.70%	42.70%	36.90%	4.10
	Airtel	1.10%	2.20%	13.50%	37.10%	46.10%	4.25
Newer Service delivery strategies	Safaricom	2.90%	2.90%	18.30%	39.40%	36.60%	4.04
	Airtel	3.40%	5.60%	21.30%	36.00%	33.70%	3.91
Better market positioning	Safaricom	1.80%	2.90%	13.60%	38.00%	43.70%	4.19
	Airtel	1.80%	2.90%	13.60%	38.00%	43.70%	4.06
Better relations with public and government	Safaricom	2.90%	2.50%	17.60%	37.30%	39.80%	4.09
	Airtel	4.50%	0.00%	29.20%	32.60%	33.70%	4.91
Better staff motivation	Safaricom	2.50%	3.90%	26.90%	37.30%	29.40%	3.87
	Airtel	2.20%	5.60%	36.00%	25.80%	30.40%	3.76
Better products Offered	Safaricom	3.60%	2.90%	10.00%	47.00%	36.60%	4.10
	Airtel	4.50%	7.90%	6.70%	43.80%	37.10%	4.01
Affordable Products	Safaricom	10.00%	8.60%	14.30%	39.10%	28.00%	3.66
	Airtel	11.20%	14.60%	14.60%	31.50%	28.10%	3.51

Where: **SA** strongly Agree. **A** Agree. **N** Neutral. **D** Disagree. **SD** strongly Disagree

From the above findings most of the respondents were in agreement that their provider was offering superior service quality as were represented by the highest percentage of 41% (Mean 4.13 & 4.11) for both providers respectively with those who strongly agreed having 40%.

On customer handling, a majority (41.9%, Mean: 4.15) of Safaricom customers strongly agreed with their providers handling of their complaints while there is an agreement for the same by Airtel customers (43.8% Mean: 4.12). Further the respondents view of whether the products provided were satisfying, 45.2% (Mean: 4.14) of Safaricom customers were in agreement while 41.6% (Mean: 4.00) of Airtel customers were in strong agreement with the preposition. The same trend was also exhibited by their response on whether their provider was handling their complaints efficiently where 41.2% (Mean: 3.98) of Safaricom customers were in strong agreement while 43.8% (Mean: 4.09) of Airtel customer were in agreement.

The providers market flexibility received the highest rating of 41.2% (Mean: 4.03) and 41.6% (Mean: 4.12) in agreement from both Safaricom and Airtel users respectively. Majority (43% Mean: 4.12) of Safaricoms customers gave an agreement to their providers societal standing while 42.7 % (Mean: 4.04) of Airtel customer strongly agreed that it enjoys a higher societal standing. In their ratting for customer loyalty, 44.4% (Mean: 4.32) of Safaricom respondents were in agreement while 39.3% (Mean: 4.31) as a majority of Airtel customer were in a strong Agreement. On the respondents rating on the providers market share, 53% and 50.6% (Mean: 4.10 &4.25) of Safaricom and Airtel customers respectively were in strong agreement while 42.7% (Mean: 4.04), a majority of Safaricom customers and 46.1 % (Mean: 3.91) of Airtel users were in agreement of their provider having better customer relations. The ability of the service providers to use newer service delivery strategies received a strong agreement by both providers majority with 39.4% and 36% (Mean: 4.19 & 4.06) for Safaricom and Airtel respectively.

Equal strong agreement of represented 43.7% (Mean: 4.09 & 3.91) of both providers customers was received for having a better position in the market, the same trend in response was received in relation to how the provider was relating with the general public and government agencies where 39.8% and 33.7% (Mean: 3.87 & 3.76) being the majority of Safaricom and Airtel customers who were with a Strong agreement. Motivation of employees received the 37.3% and 36% (Mean: 4.10 & 4.01) as the majority for agreement and being Neutral from Safaricom and Airtel users respectively while their views on their providers offering better products receives a majority of 47% and 43.8% of Safaricom and Airtel customers respectively being in agreement.

The last attribute to be rated by the respondents was in relation to affordability of providers products and services where 39.1% (Mean: 3.66) of Safaricom users and 31.5% (Mean: 3.51) a majority of Safaricom and Airtel user were in Agreement. It was evident that a most of the respondents were in either in agreement or with a strong agreement towards the benefits their providers were benefiting from the use of CSR activities except for staff motivation where majority of Airtel responds were neutral.

THE BENEFITS ARISING TO THE CUSTOMERS FROM USING CSR

The respondents views on the benefits accrued to the customer as a result of the CSR were as presented in Table 4.6 below:

TABLE 9: CSR BENEFITS TO THE CUSTOMER

Benefits of CSR	Provider	SD	D	N	A	SA	Mean
Very Satisfied with Provider	Safaricom	2.9%	6.1%	15.4%	41.6%	34.1%	3.98
	Airtel	2.2%	5.6%	16.9%	41.6%	33.7%	3.99
Very Loyal to My Provider	Safaricom	2.5%	7.5%	13.3%	39.4%	37.3%	4.01
	Airtel	3.4%	3.4%	22.5%	39.3%	31.5%	3.92
Received Value for Money	Safaricom	5.4%	11.5%	22.6%	37.3%	23.3%	3.62
	Airtel	5.6%	12.4%	14.6%	40.4%	27.0%	3.71
Convenience of transacting	Safaricom	3.9%	5.0%	9.7%	41.2%	40.1%	4.09
	Airtel	2.2%	3.4%	13.5%	38.2%	42.7%	4.16
Empowered by the provider	Safaricom	5.0%	9.3%	15.8%	38.7%	31.2%	3.82
	Airtel	6.7%	3.4%	18.0%	36.0%	36.0%	3.91

Where: **SA** strongly Agree. **A** Agree. **N** Neutral. **D** Disagree. **SD** strongly Disagree

The response received in relation to the u ser's view on the benefits accrued to them indicative a competitive advantage achieved by the providers saw a majority (41.6%, Mean: 3.98 & 3.99) of Safaricom and Airtel respondents were in agreement that they were satisfied with their provider. The same rating of

agreement was also received in relation to their loyalty to the provider where 39% were of Both Safaricom and Airtel respondents (Mean: 4.01 & 3.92). On whether the providers engagement on CSR has created more value for them, a majority of both Safaricom 37.3% and 40.7%, Mean: 3.62 & 3.71) were in agreement. On convenience of transacting, majority (41.2% Mean: 4.09) of the Safaricom customers were in agreement while a majority (42.7% Mean: 4.16) of Airtel customers were in strong agreement.

On the last attribute on whether the providers having empowered the respondents, a majority of Safaricom customers were in agreement while an equal proportion 36%, (Mean: 3.82 & 3.91) of Airtel were either in agreement and also with a strong agreement. It was evident that a majority of the customers were in agreement of the benefits attributed their providers engaging in CSR activities

HYPOTHESES TESTING

To determine the influence or relationship of CSR activities on the firm's competitive advantage, three hypotheses were tested as shown below:

HO₁: The type of CSR engagement by the service provider do not contribute to the competitive Advantage achieved

To test the relationship between type of CSR engaged in and competitive advantage the researcher multiple regression where the types of CSR activities adopted was tested against competitiveness. The results from the regression model contained eight independent variables representing the different types of CSR against the levels of competitiveness achieved by both firms, and individually were as indicated in Table -

TABLE 10: MULTIPLE REGRESSION RESULTS

	Model R^2		Model Summary				
			Sum of Squares	df	Mean Square	F	Sig.
Combined	0.059	Regression	10.245	8	1.281	2.802	0.005
		Residual	164.056	360	0.457		
		Total	174.302	368			
Safaricom	0.063	Regression	8.492	8	1.062	2.257	0.024
		Residual	126.999	270	0.470		
		Total	135.491	278			
Airtel	0.157	Regression	6.085	8	0.761	1.859	0.078
		Residual	32.724	81	0.409		
		Total	38.809	89			
Both	0.11	Regression	3.880	8	0.485	0.916	0.510
		Residual	31.237	59	0.529		
		Total	35.118	67			

The combined test including both Safaricom and Airtel customer's significantly explained 5.9% of the variations in competitiveness achieved by both firms. Individually, the CSR activities used by Safaricom significantly explained 6.3% of the variances in its competitiveness while the choice of Airtel CSR activities explained 15.7% of the variances in its competitiveness; however the model did not attain statistical significance. Based on the P values of the three tests, the null hypotheses for the combined model and for Safaricom were rejection while that of Airtel was accepted. for those who were using both providers, the model explained 11% of the variances in competitiveness achieved but was not statistically significant. This led to the conclusion that that the type of CSR engaged in by the providers does play a role on creation of competitive advantage achieved by Safaricom, while it does not for those using Airtel or both providers.

Pearson's Correlation was used to test the second hypothesis on whether there was relationship between the level to which the provider was using the mean score of both CSR activities and competitiveness achieved. The outcome was as presented in table below 4.8.1.

H02 : Awareness of CSR activities contributes to Competitive Advantages of Mobile telephone companies

TABLE 11: LEVEL OF CSR ENGAGEMENT AND COMPETITIVENESS

Preferred Provider			Level of CSR Engagement	Competitiveness
Safaricom	Level of CSR Engagement	Pearson Correlation	1	0.176[**]
		Sig. (2-tailed)		0.003
		N	279	279
	Competitiveness	Pearson Correlation	0.176[**]	1
		Sig. (2-tailed)	.003	
		N	279	279
Airtel	Level of CSR Engagement	Pearson Correlation	1	0.202
		Sig. (2-tailed)		0.058
		N	89	89
	Competitiveness	Pearson Correlation	0.202	1
		Sig. (2-tailed)	0.058	
		N	89	89
**. Correlation is significant at the 0.01 level (2-tailed).				

Form the analysis, it was established that only Safaricom had a significant relationship between the level of engagement in CSR and the competitiveness seen from the view of subscribers. For Airtel it was found not to be significant and hence the null hypothesis was accepted leading to the conclusion that there no relationship between the level of CSR engagement by Airtel and competitiveness achieved.

HO₃: The nature of CSR benefits do not contribute to competitive Advantages of Mobile telephone companies

The third objective of the study was to establish the level to which the benefits due to engaging in CSR activities have influenced the competitiveness of the Mobile phone providers. Pearson correlation was used as a test statistic and the results are as presented in table below.

TABLE 12: CRS BENEFITS AND COMPETITIVENESS

Preferred Provider			Competitiveness	Benefits of CSR
Safaricom	Competitiveness	Pearson Correlation	1	0.630**
		Sig. (2-tailed)		0.000
		N	279	279
	Benefits of CSR	Pearson Correlation	0.630**	1
		Sig. (2-tailed)	0.000	
		N	279	279
Airtel	Competitiveness	Pearson Correlation	1	0.746**
		Sig. (2-tailed)		0.000
		N	89	89
	Benefits of CSR	Pearson Correlation	0.746**	1
		Sig. (2-tailed)	0.000	
		N	89	89
**. Correlation is significant at the 0.01 level (2-tailed).				

From the findings, the benefits customers had received due to the provider engaging in CSR activities were found to have significantly strong relationship for both Safaricom and Airtel with the level of competitiveness achieved by the providers.

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

From the analysis it was established that the majority (60.9%) of the respondents involved in the study were Safaricom users while 20.7% were using the Airtel services. Notably 18.5 % of the providers were using both service providers which was a reflection of the current market share of the two service providers. For those who used both providers they were also found to have more preference to Safaricom. This can be attributed to the provider having been the first entry into the market before airtel and has continued to carry out aggressive marketing. It was notable that majority of the respondents were aware of the CSR concept and acknowledged that their providers were actively undertaking various CSR activities.

While relating the involvement in CRS activities by the providers with the level of competitiveness achieved through a multiple regression, it was noted that the type of CSR played a significant role in the competitiveness of Safaricom while to the contrary it does not for Airtel. Based on the argument of Lippman & Rumelt (1982) pioneering firm will find the impact of their CSR being well sustained as compared to those coming in later who will in most cases be duplication already existing programs. Safaricom being the market leader may have perfected on its CSR activities giving their competitors no room to strategically perfect the act but are overshadowed by its success.

When the relationship between the level of CSR engagement was tested against competitiveness using Pearson's correlation test, it was established that there was a statistical significant relationship with competitiveness achieved by Safaricom while it wasn't with Airtel. As established by Hillman & Keim (2001) there is a positive correlation between CSR and financial performance. Since it's formation Safaricom has consistently made supernormal profits providing it with an opportunity to invest substantial amounts in CSR activities across the country. Its CSR activities are known to a large proportion of it's subscribers as a result of their magnitude and accompanied by promotions which may be closely linked with it's contribution to the competitiveness achieved.

On the benefits customers had received due to the provider engaging in CSR activities, it was found to have statistically significantly strong relationship for Safaricom and for Airtel with the level of competitiveness achieved by the providers. The ability of CSR to give direct service the community is closely related to the benefits that will accrue to the company (Barney 1991) as it is closely related to improved brand image, reputation and increased ability to relate with the customer. The relationship between the providers benefits can be related to Potter & Kraner (2002) preposition recommending business not to engage in CSR for the sake of pure philanthropy, rather it should transform it's use into a competitive context in which a business benefits choosing a pressing but carefully chosen need that benefits both the company and the customers. It has been notable that both providers have been keen in choosing the CSR activities mainly through evaluating the benefits to be accrued to their communities involved.

CONCLUSION

From the findings the researcher can conclude that majority of mobile phones users within Nakuru town were clearly aware of their providers participation in different CSR activities. This gives a strong indication of good publicity that has always accompanied engagement in CSR activities as a marketing tool. It was also very clear that the two providers were engaged in almost all eight types of CSR activities that were indicated in the study. The level to which the providers were engaged in the CSR activities having received approval of an agreement by the majority is a clear indication that the users were also knowledgeable of the extent that providers were committed to the activities as a sign of community support and giving back to the society.

It can also be concluded clearly from the finding that engagement by mobile phone providers in the specific types of CSR activities cannot be ascertained to influence a specific elements associated with attainment of competitiveness as measured using the five indicators adopted in the study. This clearly points out a picture that suggests provider's engagement in several different rather than a single CSR activity as a way of attaining the desired levels of competitiveness collectively. The collective effect of engaging in different CSR activities bring about a collective influence that can be identified with the level of competitiveness achieved.

On the level to which the different provider should engage themselves in the different CSR activities, there is need for an independent critically evaluate by each provider to ascertain the extent to which they are able create a competitive edge. This was based on the fact that Safaricom was found to achieve statistically significant relationships between its levels of engagement and competitiveness while Airtel could not.

The benefits perceived to have been received by the users of mobile phone services was found to play a very significant role in creating competitiveness sought by the firms. Just like any user of products or services, it is critical for mobile services to deliver a bundle of benefits that each customer can identify with. Ultimately it can be concluded that irrespective of the type or level of engagement in CSR activities by the providers, it is the perceived benefits that played an important role in creation of the desired competitiveness.

RECOMMENDATIONS

As much as there are several activities that qualify to be considered as areas of engagement as a CSR, it is important that they are critically evaluated to determine their impact on the firm's competitiveness. Mobile phone service providers therefore should critically analyse their portfolio of CSR activities and select strategically those that are likely to generate the desired levels of competitive advantage. More, so they should select projects or activities that can be identified with specific attributes identified with their competitiveness.

Based on the relationship between the levels of subscriber's awareness on the CSR activities undertaken by their provider, it is recommended that they should continue to attach adequate levels of publicity to any activity engaged in. As a marketing tool CSR activities need to be effectively communicated to the general public and indeed to their customers so as to give it the desired impulse and influence consumer attitudes and perceptions. It is also recommended that the providers adopt effective publicity tools that will ensure that their activities are widely communicated and influential in the mind of the consumer with the aim of creating the desired levels of loyalty and commitment.

Finally, in relation to the perceived benefits accrued from engaging in CSR activities that defines competitiveness, it is of key interest that the providers should consider clearly identify, packaging and delivering through their CSR activities visible benefits that can be identified by their customers. Customer participation, involvement and awareness at any stage of the CSR activity should be considered to effectively transfer the benefits to them. It is also of paramount importance for every CSR activity chosen to carry specific benefits relevant to the specific market.

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TO STUDY THE FACTORS THAT INFLUENCE MOMENTARY DECISION MAKING BY MANAGEMENT STUDENTS OF SOUTHERN BANGALORE CONCENTRATING ON THEIR TIME ALLOCATION AND HABITUAL ACTIVITIES

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ABSTRACT

It is very necessary for students to be able to allocate their time as a valuable and scarce resource. There is no room for habitual procrastinators. The youth today are the future of our tomorrow. It is necessary for them to understand the importance of time, which is by far the most treasurable resource one has, if not used well, one will repent. Our research focuses on identifying how students in business management within the age group of 17 − 26 spend their time and what are the factors influencing their momentary decision making; with a sample size of 80, from which 45 are males and 35 are females. Information is primary data and is collected through questionnaires which were distributed online and in person. Through our research we are able to conclude that there is relationship between travel-time and concentration level. We are also able to understand that social media habits are more or less the same within this age group, co-curricular activities and study goals more or less have the same importance. It is also noticed that most of the decisions based on behavior are influenced by the peers opinions and suggestions. In the course of our research, we have identified that the most preferred activity as a stress buster is going for a walk, or indulging in some physical activity.

KEYWORDS
efficiency, influence, preference, time, youth.

INTRODUCTION

Habitual procrastinators will readily testify to all the lost opportunities, missed deadlines, failed relationships and even monetary losses incurred just because of one nasty habit of putting things off until it is often too late." Quote by anonymous. In today's world, we often hear the youth whining about 'no time'. While these are the people who will tomorrow run the country, it is important for them to 'make time'. Time has always and will always be a valuable asset to all of us. Time once wasted will not come back. Therefore there is a need to understand how we can increase our efficiency. In the west we find many people whose life depends on the schedule they prepare for the day, week or month. In India, we follow IST, where 10 minutes is definitely not 10 minutes.

Through this research we are trying bring awareness of how important it is to spend time wisely. If we as students today, inculcate time management as our daily activity, by bringing balance to our study and leisure life; when working with corporates we would eventually become the less stressed crowd. In our research paper we are focusing on how business management students in southern Bangalore spend their time and provide relevant recommendations based on our findings with a sample size of 80 business management students, of age group 17 − 26 who we would address as youth in the research paper.

Formal class time is defined by us as the time spent in the classrooms and in formal lectures as well as self-study which means pre/post lecture preparations. Leisure activities involve the time spent on music, recreational activities, gaming, exercising, charity – voluntary & social service, self-enhancement – building competent skills.

We will also broadly define the most preferred activities by the youth. Firstly, what activities they would prefer as recreation. Secondly, how much time they spend on social media browsing. Thirdly, we will establish that there is a relationship between travelling time and concentration level. Fourthly, we have understood that the youth's momentary decisions are highly influenced by their peers.

REVIEW OF LITERATURE

Most students find that their greatest challenge to college life and to succeeding in the classroom is in managing their time effectively. According to an article by *Maria Pascucci, Founder & President, Campus Calm, "***Time is your greatest asset in life. You get to choose how you spend it".**Even though attending class and completing assignments is a top priority for most students, many find that they are not allowing enough time for their studies. In an article by Don Farris, he mentions that "time cannot be managed rather we manage the utilization of it". Poor time management behaviors, such as not allocating time properly or last-minute cramming for exams, have been frequently discussed as a source of stress and poor academic performance (Gall, 1998; Longman & Atkinson, 1988; Walter & Siebert, 1981). One need to manage time effectively if he/she is going to be successful. All other things held constant, better time management skills can improve your grades, help you keep stress in check, and help you be competitive in the career you undertake following your university education (Gortner, Lahmers, and Zulaut, 2000: Macon et. Al, 1990; ISR, 1995).

HOW MUCH TIME IS ENOUGH?

The time you spend on task has some relationship to the quality of work you end up producing. A good gauge to follow is to perform 2-3 hours of school work outside class for every hour of class time. Yes, this means for a full-time student with a 15 hour of class per week load the recommendation is to do between 30 and 45 hours of home work each week.

Developing time management skills is a journey that needs practice and other guidance along the way. One goal is to help yourself become aware of how you use your time as one resource in organizing, prioritizing, and succeeding in your studies in the context of competing activities of friends, work, family, etc. According to the strategies given on "study guides and strategies" in their website, these application of time management have proven to be effective as good study habits. These were some of the strategies that were recommended.

STRATEGIES ON USING TIME

- **Blocks of study time and breaks**

  A block is the amount of time one can sit and study without losing concentration. Blocks ideally are around 50 minutes, but perhaps you become restless after only 30 minutes? Some difficult material may require more frequent breaks. Shorten your study blocks if necessary-but don't forget to return to the task at hand! What you do during your break should give you an opportunity to have a snack, relax, or otherwise refresh or re-energize yourself. Jot down one best time block you can study. How long is it? What makes for a good break for you? Can you control the activity and return to your studies?

- **Dedicated study spaces**

  Determine a place free from distraction (no cell phone or text messaging!) where you can maximize your concentration and be free of the distractions that friends or hobbies can bring! You should also have a back-up space that you can escape to, like the library, departmental study center, even a coffee shop where you can be anonymous. A change of venue may also bring extra resources.

- **Weekly reviews**

  Weekly reviews and updates are also an important strategy. Each week, like a Sunday night, review your assignments, your notes, your calendar. Be mindful that as deadlines and exams approach, your weekly routine must adapt to them!

- **Prioritize your assignments**

  When studying, get in the habit of beginning with the most difficult subject or task. You'll be fresh, and have more energy to take them on when you are at your best. For more difficult courses of study, try to be flexible.

- **Achieve -get something done!**

  By starting, you may realize that there are some things you have not planned for in your process. Details of an assignment are not always evident until you begin the assignment. An adage in this context could be "perfection is the enemy of good", especially when it prevents you from starting! Given that you build in review, roughly draft your idea and get going! You will have time to edit and develop later.

- **Postpone unnecessary activities until the work is done!**

  Postpone tasks or routines that can be put off until your school work is finished!
  This can be the most difficult challenge of time management. As learners we always meet unexpected opportunities that look appealing, then result in poor performance on a test, on a paper, or in preparation for a task.

- **Identify resources to help you**

  Are there tutors? An expert friend? Have you tried a keyword search on the Internet to get better explanations? Are there specialists in the library that can point you to resources? What about professionals and professional organizations. Using outside resources can save you time and energy, and solve problems.

- **Use your free time wisely**

  Think of times when you can study "bits" as when walking, riding the bus, etc. Perhaps you've got music to listen to for your course in music appreciation, or drills in language learning? The bottom line is to put your time to good use.

Britton and Glynn (1989) described a simple theoretical model of time-management practices intended to maximize intellectual productivity. The present investigation was based loosely on that model. The model specifies several time management components: choosing goals and sub goals, prioritizing the goals, generating tasks and subtasks from the goals, prioritizing the tasks, listing the tasks on a "to-do" list, scheduling the tasks, and then carrying out the tasks. Here time management is only possible through self motivation.

Performance=Ability*Motivation

STATEMENT OF THE PROBLEM

To identify the activities preferred to revive from stressful situations and observing factors influencing momentary decisions of management students, between the age of 17 and 26 years, in Southern Bangalore

OBJECTIVES

1. To study the importance of co-curricular activities and the study goals.
2. To obtain an understanding of the various daily activities of college students.
3. To study the activities preferred by the management students to rejuvenate themselves during the time of stress.
4. To study the factors those influence the momentary decisions.

HYPOTHESES

Hypothesis 1: Is there a relationship between age (17-26yrs) and time spend on the social media network.
Hypothesis 2: Is there a relation between concentration level and travelling time

THEORETICAL FRAMEWORK
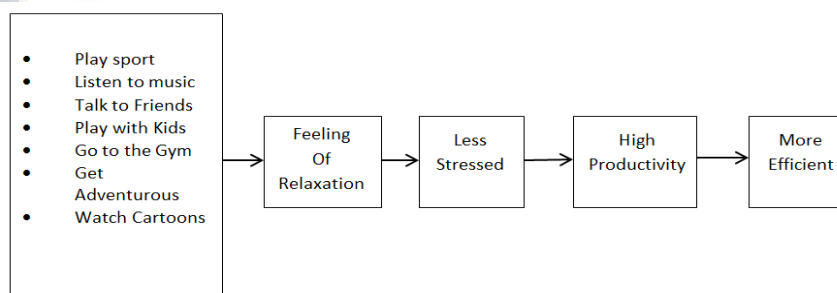
Through our research we have found that these 7 activities – play sport, listen to music, talk to friends, play with a kid, go to the gym, get adventurous and watch cartoons are the most preferred activities when it comes to talking a study break or as a stress buster. Out of which 70% of the respondents preferred indulging into physical activities like going for a walk/run, heading to the gym or getting into an adventurous trip. By performing any one of the above mentioned seven factors, there is a sense of relaxation, this feeling of relaxation further leads to revival from saturation point, eventually leading to high productivity and efficiency.

Therefore it is suggested to take frequent intervals of break, while performing a tedious task or performing a task that involves a lot of mind work. This while act as a brain exercise and re-generate your thinking and make you efficient.

RESEARCH METHODOLOGY

This research is a combination of qualitative as well as quantitative research method, wherein we have provided information and a clear picture of the mentioned objectives, with respect to our sample. Data collected for this research is from the information in 2014. The source of data is primary. The data is collected through the means of Questionnaires/schedules, Online information and Research data portals. The sample plan involves the population of students; sample is the management students (Statistics – Between the ages of 17 – 26 years; pursuing management studies in tier one colleges.) Units are 80 management students in Bangalore. Time Period of data collection is from September 2014 – October 2014. Sampling technique and method used in this research paper is non-probabilistic sampling. Under Non-Probabilistic sample design, our sampling method is a combination of convenience sampling, where we are selecting our sample units based on our convenience; generally neighbors, friends, family members and colleagues & quota sampling, which is based on the basis of demographics (age, education & occupation). Our source of data collection is entirely dependent on Primary Sources. Since our research contains both elements of quantitative and qualitative research, the data is collected through surveys and questionnaire as well as through human observation. The reliability of our questionnaire has the value of Cronbach's Alpha = 0.903

RELIABILITY STATISTICS

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
.903	.905	7

ANALYSIS

TO STUDY THE IMPORTANCE OF CO-CURRICULAR ACTIVITIES AND THE STUDY GOALS

Nearly 91.3% of the respondents have valued both the study goals and co-curricular activities as important.

TABLE 1: IMPORTANCE OF STUDY GOALS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	15	18.5	18.8	18.8
	Agree	31	38.3	38.8	57.5
	NEUTRAL	27	33.3	33.8	91.3
	Disagree	6	7.4	7.5	98.8
	Strongly disagree	1	1.2	1.3	100.0
	Total	80	98.8	100.0	
Total		80	100.0		

Source : survey

TABLE 2: IMPORTANCE OF CO-CURRICULAR ACTIVITIES

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	11.3	11.3	11.3
	Agree	29	36.3	36.3	47.6
	NEUTRAL	35	43.8	43.8	91.4
	Disagree	4	5	5.0	96.4
	Strongly disagree	3	3.6	3.6	100.0
	Total	80	100	100.0	

Source: survey

TO OBTAIN THE UNDERSTANDING OF THE VARIOUS DAILY ACTIVITIES OF THE COLLEGE STUDENTS

Various activities that we have considered for our study are: time spent on social media, time spent travelling, exercise time, and time spent in the classrooms (formal lectures)

TABLE 3: TIME SPENT ON SOCIAL MEDIA EVERY DAY

SOCIAL MEDIA NETWORK					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LESS THAN AN HOUR	24	29.6	30.0	30.0
	LESS THAN 2 HOURS	23	28.4	28.8	58.8
	LESS THAN 3 HOURS	15	18.5	18.8	77.5
	MORE THAN 3 HOURS	18	22.2	22.5	100.0
	Total	80	98.8	100.0	
Missing	System	1	1.2		
Total		81	100.0		

Source: Survey

58.8% of the respondents spend a minimum of 2 hours over social media networking sites on a daily basis.

TRAVELLING TIME

The data below shows travelling time made by the respondents and frequencies show that almost 53.1% of the students travel less than half an hour a day and nearly 43.2% of the students travel around for 1 to 3 hours in a day.

TABLE 4: TIME SPENT ON TRAVEL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LESS THAN 30 MIN	43	53.1	53.8	53.8
	1-3 HOURS	35	43.2	43.8	97.5
	4-6 HOURS	1	1.2	1.3	98.8
	MORE THAN 6 HOURS	1	1.2	1.3	100.0
	Total	80	98.8	100.0	
Missing	System	1	1.2		
Total		81	100.0		

Source : Survey

TABLE 5: TIME SPENT ON THE CLASS ROOM

TIME SPENT IN CLASS ROOM - 46.9% OF THE RESPONDENTS SPEND CLOSE TO 6 HOURS IN THE CLASSROOM					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LESS THAN 4 HOURS	20	24.7	25.0	25.0
	LESS THAN 6 HOURS	38	46.9	47.5	72.5
	MORE THAN 6 HOURS	22	27.2	27.5	100.0
	Total	80	98.8	100.0	
Missing	System	1	1.2		
Total		81	100.0		

Source: survey

EXERCISE TIME - The responses show that nearly 60.5% didn't exercise on regular basis and only about 17.3% of the students exercise regularly almost every day.

TABLE 6: TIME SPENT ON EXERCISE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NOT REGULAR	49	60.5	61.3	61.3
	ONCE A WEEK	5	6.2	6.3	67.5
	2-4 DAYS A WEEK	12	14.8	15.0	82.5
	5-7 DAYS A WEEK	14	17.3	17.5	100.0
	Total	80	98.8	100.0	
Missing	System	1	1.2		
Total		81	100.0		

Source: Survey

In order to test the relationship between the age and time spent on social media, cross-tabulation was constructed and tested using chi-square. 58.75% of the respondents spend less than 2 hours on social media

H01: there is no relationship between age (17-26yrs) and time spent on the social media network.

V/s

H11: there is a relationship between age (17-26yrs) and time spent on the social media network.

TABLE 7: CROSS TABULATION BETWEEN SOCIAL MEDIA NETWORK AND AGE

Count		AGE										Total
		17	18	19	20	21	22	23	24	25	26	
SOCIAL MEDIA NETWORK	LESS THAN AN HOUR	0	2	3	2	8	3	4	0	1	1	24
	LESS THAN 2 HOURS	2	1	1	3	11	1	1	1	2	0	23
	LESS THAN 3 HOURS	1	2	0	3	2	4	1	2	0	0	15
	MORE THAN 3 HOURS	1	1	3	4	3	3	2	1	0	0	18
Total		4	6	7	12	24	11	8	4	3	1	80

Source : Survey

SOCIAL MEDIA NETWORK

Bar chart with Frequency on the y-axis (0 to 25) and SOCIAL MEDIA NETWORK categories on the x-axis: LESS THAN AN HOUR (24), LESS THAN 2 HOURS (23), LESS THAN 3 HOURS (15), MORE THAN 3 HOURS (18).

SOCIAL MEDIA NETWORK
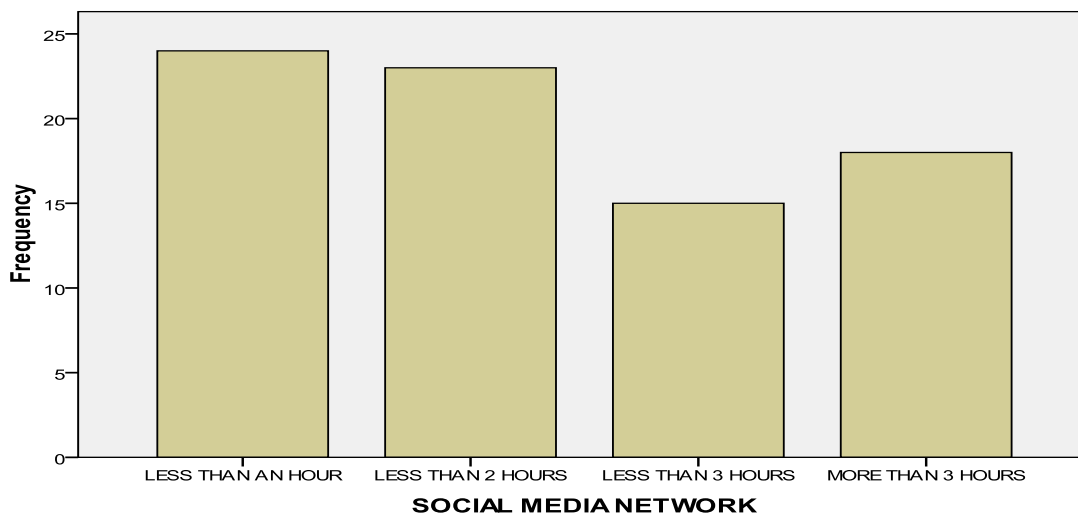
Chi-Square Tests	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	26.968^a	27	.466
Likelihood Ratio	30.943	27	.273
Linear-by-Linear Association	.966	1	.326
N of Valid Cases	80		

Since the table value (40.1 at 27 df) is greater than calculated value (26.968), there is sample evidence indicating that there is no relationship between the age and the time spent on social media. It is also support by the correlation coefficient value of -0.111. Hence there is no relationship between the age and usage of social media amongst this group.

TO STUDY THE FACTORS THOSE INFLUENCE THE MOMENTARY DECISION

COMMUNALITIES		
	Initial	Extraction
INFLUENCE ON HANG OUT	1.000	.487
INFLUENCE ON MENU	1.000	.395
INFLUENCE ON GARMENTS	1.000	.582
INFLUENCE ON GADGET PURCHASE	1.000	.540
INFLUENCE ON BEHAVIOUR	1.000	.682
Extraction Method: Principal Component Analysis.		

We have observed that the peer influence is very high on how to react in different situations, with a supporting value of 68.2% agreeing upon the influence. While the influence on eating habits is comparatively low i.e. 39.5%.

Diagram: boxes pointing to a central circle labeled "PEERS influence":
- What food to choose from the menu (what to eat and what not to)
- Which gadgets to purchase
- Where to spend time (hangouts spots)
- How to react to situation (what to do, and what not to do)
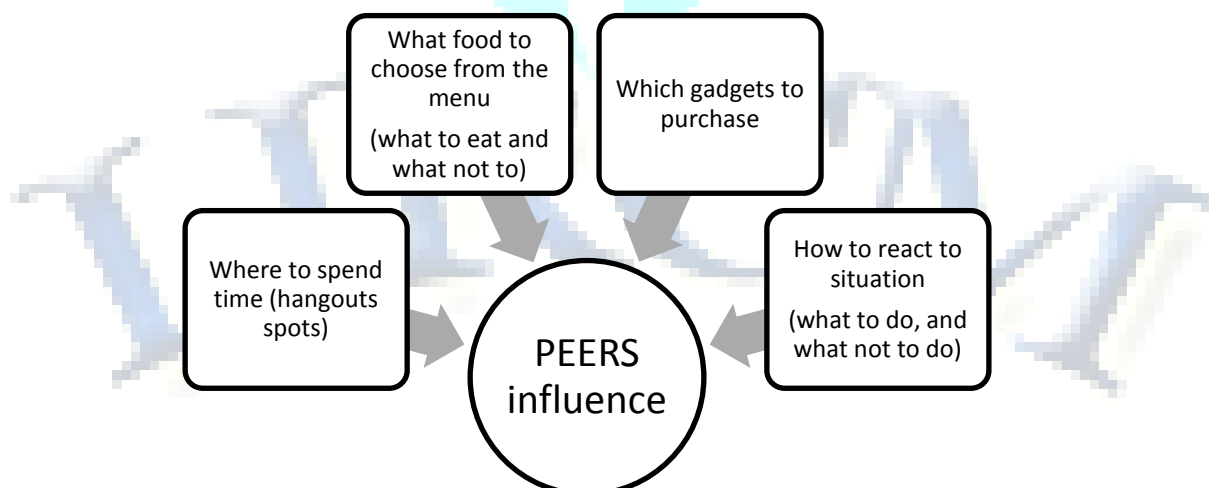
In order to test is there a relation between concentration level and travelling time, cross-tabulation was constructed and tested using chi-square.

H0: There is no relation between concentration level and travelling time

   V/s

H1: There is relation between concentration level and travelling time

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TABLE 8: CROSS TABULATION BETWEEN TRAVELLING TIME AND CONCENTRATION LEVEL

Count		CONCENTRATION LEVEL					Total
		SA	A	NEUTRAL	DA	SDA	
TRAVELLING TIME	LESS THAN 30 MIN	19	12	7	2	2	42
	1-3 HOURS	22	6	3	2	1	34
	4-6 HOURS	0	1	0	0	0	1
	MORE THAN 6 HOURS	0	0	0	0	1	1
Total		41	19	10	4	4	78

CHI-SQUARE TESTS			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	25.208[a]	12	.014
Likelihood Ratio	12.441	12	.411
Linear-by-Linear Association	.173	1	.678
N of Valid Cases	78		
a. 15 cells (75.0%) have expected count less than 5. The minimum expected count is .05.			

Since the table value (21.0126 at 5 df) is lesser than calculated value (25.208), there is sample evidence to indicate that there is a relationship between travel time and concentration level. Hence there is a relationship between travel time and concentration level.

To study the activities preferred by the management students to rejuvenate themselves during the time of stress

The responses from the students show that going to gym, playing a sport or doing an adventurous activity had more impact on relieving the stress.

Component Matrix[a]	
	Component
	1
PLAY SPORT	.859
LISTEN MUSIC	.626
TALK TO FRIENDS	.710
PLAY WITH KIDS	.821
GO TO GYM	.872
ADVENTEROUS	.867
WATCH CARTOONS	.832
Extraction Method: Principal Component.	

The above mentioned factors are the most preferred activities when it comes to taking a break from stressful activities.

RESULTS & DISCUSSION

For finding whether there a relationship between age (17-26yrs) and time spend on the social media network. We have inferred that the time spent over social media is more or less the same within this age group which is 2 hours daily, travelling constitutes around 30 minutes to 1 hour of their time, 46.9% of the respondents spend less than 6 hours in the classroom, The responses show that nearly 60.5% didn't exercise on regular basis and only about 17.3% of the students exercise regularly almost every day. Most of the students spend less than an hour for University assignments on a daily basis.

We have understood that more the travelling time, lesser the concentration level amongst the group. Also we have inferred that study goals and co-curricular activities have more or else the same level of importance, study goals being on the higher side of the scale.

CONCLUSIONS

We have identified that the youth have always opted for a physical activity as a stress buster as well as study break activity. Also we have inferred that the youth spend a lot of time over social media network, on an average a 2 hours is a daily time allocation. The total time dedicated to class room and formal lecture hours on an average is a less than 6 hours in a typical week. There is a relationship between travelling and concentration levels the relationship is of inversely proportionate one. Minimum amount spent travelling is 30 minutes. Most of the youth spend less than an hour on their University assignments and on a Friday night the most widely preferred activity is to relax at home with family and friends or watch a movie.

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ACCEPTANCE OF ONLINE BUYING IN HIMACHAL PRADESH

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ABSTRACT

Vast spread of internet in India has increased the possibility of using internet for online buying purpose. This paper identifies the key factors that influence customers intention regarding online purchase of products in Himachal Pradesh which leads to acceptance of online buying. Data was collected from a sample of 220 respondents through a well structured questionnaire. The data was collected by asking open ended and close ended questions in 5- point likert scale. For analysing and interpreting data in the present study, basic statistical tools, factor analysis and regression analysis was used with the help of SPSS 16.0 version. The findings of the study depicts three factors i.e., Convenience Factor, Credibility factor and Risk Factor which influence online purchase of products. Further the study exhibited that Convenience Factor and Credibility Factor positively influence the acceptance of online buying by customers while Risk Factor negatively affect the acceptance of online buying.

KEYWORDS

Convenience, Electronic transactions, Online buying, Trust.

INTRODUCTION

India has about 250.2 million internet users as of June, 2014. The penetration of e-commerce is low compared to markets in United States and United kingdom, but it is growing in India. The rate of growth is much higher due to large number of entrants. The Industry consensus is that growth of online shopping is at an inflection point. Unique to India and other developing nations, cash on delivery is a preferred payment method. India's e-commerce market was worth about $ 3.8 billion in 2009, it went up to $ 12.6 billion in 2013, the e-retail market was worth US $ 2.3 billion. India has close to 10 million online shoppers and is growing at an estimated rate of 30 percent. On 7th March 2014, e-retailer Flipkart claimed, it has hit $1 billion in sales, a feat it has managed to achieve before its own target (2015).In early June 2013, Amazon.com launches their Amazon India market place without any market campaigns. These incidents clarifies that online method of buying is emerging as game changer in the Indian market.

REVIEW OF LITERATURE

Internet is one of the emerging for electronic transactions throughout the world and transformed the way of buying goods and services. Study conducted by Karayanni (2003) depicted online shoppers tend to benefit in three ways. First is availability of shopping on 24 hours basis, second, it is time saving and third and last is avoidance of visiting physical stores.

Curtis (2000) concluded that people tend to use internet more for obtaining information rather than for buying products online.

Hoffman et al. (1999) highlighted that that there is lack of trust between most online businesses and the consumers. Therefore due to this consumers do not buy the product online.

Steinfield and Whitten (1999) highlighted that the presence of internet facility and physical presence of product is required to ensure that more consumers will buy online. Such a combination provides re-purchase and post sale services to the consumers and therefore builds trust in online buying and helps to lower the consumer transaction cost.

Consumer decision making means a consumer makes choice between than one alternatives of available goods and services. The study of consumer decision making is concerned with choice among various options(Peter and Olson1999).

A large number of researches about consumer decision making put focus on cognitive process. Consumer decision making process was described as complicated with many factors generate problem recognition before a series of actions was initiated to reach a conclusion (Erasmus et. al., 2001).

Goldsmith and Goldsmith (2002) found that experienced online shoppers have more trust and better feeling on online service than non-experience shoppers who have no online shopping experience before. Also, experienced online shoppers after considering the risks and understand them, are less risk reluctant than non-experienced shoppers (Donthu, 1999). Therefore it is becoming more and more important for online sellers to gain online consumer's trust. Those studies have been used to explain consumer's decision making, but there was few research investigating the underlying factors affecting consumer purchase intention in the online shopping environment will determine the strength of consumers intention to perform a specific purchasing behaviour by means of internet (Salisbury, Pearson and Miller, 2001).

The consumer decision making research can help people understand better, the behaviour of consumers and the reasons of their buying decision (Jobber, 1998). Online consumers expect different services at different stages, for example collecting information about the stores, comparison on products or services and online consumer services. The online purchase decision making process classified into three stages, those are; building trust, online shopping experience and product need. The whole consumers decision making process includes five stages and those are : problem recognition, collecting information, evaluating alternatives, actual purchase decision and post purchase evaluation.

The platform of e-commerce provides consumers a chance to meet their shopping demands by sitting in front of the computer and shop from home. And also this satisfies those consumers shopping demand who prefer to stay at home rather than visiting brick and mortar stores. For those who are conscious, online shopping reduces the price indirectly by saving the transportation cost (Wonseok Oh, 2002).

Lot of studies has been conducted online shopping throughout the world, there is a need of conducting research study related to factors affecting consumer behaviour regarding online shopping in developing countries like India. Dewan and Kraemer (2000) highlighted that the results conducted in developed nations cannot be applied to developing countries.

Although online shopping has increased rapidly in the last few years, proper research has not been conducted to determine the factor influencing buyer behaviour regarding online buying which leads to acceptance of online method of buying products. This study will help managers to develop appropriate marketing strategies for increasing sales of product through internet.

OBJECTIVES OF THE STUDY

With the rapid increase in the number of companies offering products over the internet, the buying preference of Indian customers is changing. Online buying has become very popular in Indian market. This research study is conducted in Himachal Pradesh and emphasises on exploring the factors which influence the intention of customers about online purchase of products in Himachal Pradesh. Moreover relationship between the extracted factors and acceptance regarding online purchase of products, is studied.

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HYPOTHESIS FORMULATION

H_1- Convenience factor and acceptance of online buying are positively related.
Ha_1- Convenience factor and acceptance of online buying are negatively related.
H2- Credibility factor and acceptance of online buying are positively related.
Ha_2- Credibility factor and acceptance of online buying are negatively related.
H3- Risk factor and acceptance of online buying are negatively related.
Ha_3- Risk factor and acceptance of online buying are positively related.

RESEACRH METHODOLOGY

In this study, an exploratory research design and a quantitative research approach was adopted. Initially data was collected at pilot level to check the designed questionnaire's ability to attain the objectives of the study. Later some changes were made in questionnaire so that objective of the study is achieved. The questionnaire has two sections. First section consist of questions related to characteristics of respondents whereas second section consist of questions exploring the attitude of consumers towards online shopping of products in Himachal Pradesh. A number of open ended as well as close ended questions in 5 point likert scale was incorporated in questionnaire. Survey was conducted in three divisions of Himachal Pradesh. Both primary and secondary data has been used in the present study. At macro level, the geographical area of this study has been limited to Himachal Pradesh. This area at micro level has been divided into twelve districts. Data has been collected from six districts of Himachal Pradesh. At the first stage, this area is divided into three administrative divisions. First administrative division is Shimla in which districts Shimla, Solan, Sirmour and Kinnaur are included. In the second division is Mandi, districts Mandi, Bilaspur, Kullu and Lahaul –Spiti are included.Third and last division is Dharamshala includes districts Una, Hamirpur, Kangra and Chamba. At the second stage, a sample of two districts from each division has been selected, where population is maximum. Data has been collected from district headquarter of each selected district of Himachal Pradesh. In order to collect the information, the respondents were selected by applying purposive sampling method. Data was collected from Shimla, Solan, Mandi, kullu, Una and Dharamshala (Headquarter of District Kangra).

ANALYSIS AND INTERPRETATION

Table 1 presents the demographic characteristics of 220 respondents. 68.2 percent of respondents of the respondents are males and 31.8 percent respondents are females. Out of the total sample size, 18.2 percent respondents live in shimla, 17.3 percent in Solan, 16.4 percent each in Mandi, Kullu and Una . Lastly 15.5 percent respondents live in Dharamshala. The table shows that almost all respondents are adult with 50 percent of all respondents in the age group of 30-50 years, 36.4 percent between 20-30 years, 9.1 percent above 50 years and only 4.5 percent respondents are less than 20 years of age. Majority of respondents i.e., 36.4 percent, are professionals and 45.5 percent respondents are earning an annual income between Rs. 2,00,000 -5,00,000. Moreover, 77.3 percent respondents do not buy products online while 22.7 percent respondents buy products online.

TABLE 1: CLASSIFICATION OF RESPONDENTS ON THE BASIS OF DEMOGRAPHIC FACTORS

Demographic Variables	Catagories	No. of Respondents
Gender	Male	150 (68.2)
	Female	70 (31.8)
Place of Residence	Shimla	40 (18.2)
	Solan	38 (17.3)
	Mandi	36 (16.4)
	Kullu	36 (16.4)
	Una	36 (16.4)
	Dharamshala	34 (15.5)
Age (in years)	Less than 20	10 (4.5)
	20-30	80 (36.4)
	30-50	110 (50.0)
	Above 50	20 (9.1)
Qualification	Upto 10+2	50 (22.7)
	Graduation	50 (22.7)
	Post Graduation	40 (18.2)
	Professional	80 (36.4)
Annual Income (in Rupees)	Below 2 lakhs	80 (36.4)
	2 -5 lakhs	100 (45.5)
	5 -8 lakhs	30 (13.6)
	Above 8 lakhs	10 (4.5)
Whether respondent buy product online?	No	170 (77.3)
	Yes	50 (22.7)

Source: Field Survey, 2014

In order to determine the factors influencing the online purchase of products in Himachal Pradesh, Factors analysis was performed with the help of SPSS version 16.0 and the following interpretation were concluded. According to the KMO and Bartlett's test shown in table 2, the Kaiser-Meyer-Oklin measure of sampling adequacy value of 0.586 which is greater than 0.50. This indicates that the sample was adequate to consider the data as normally distributed and the KMO test is highly significant. The Bartlett's test of Sphericity was tested through Chi-square which is found to have 6.183E3 at 136 degrees of freedom, which is significant at 0.000 percent level of significance, i.e., $p < 0.05$.

TABLE 2: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.586
Bartlett's Test of Sphericity	Approx. Chi-Square	6.183E3
	Df	136
	Sig.	.000

According to the Total variance Explained Table exhibited in table 3 , component 1 explains 51.192 percent of the total variance among all the variables in the data set, component 2 explains 17.843 percent and component 3 explains 9.607 percent of the total variance among all the variable in the data set. Thus three factors or component are reported based on the eigen values, they consist of all the variables. Those factors whose eigen values are more than 1 was considered. First 3 component explain 78.642 percent of the total variance.

TABLE 3: TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.703	51.192	51.192	8.703	51.192	51.192	5.483	32.251	32.251
2	3.033	17.843	69.035	3.033	17.843	69.035	5.203	30.607	62.858
3	1.633	9.607	78.642	1.633	9.607	78.642	2.683	15.784	78.642
4	.796	4.683	83.325						
5	.759	4.466	87.791						
6	.616	3.622	91.413						
7	.427	2.510	93.923						
8	.336	1.975	95.898						
9	.243	1.431	97.329						
10	.175	1.027	98.356						
11	.100	.586	98.942						
12	.064	.374	99.316						
13	.061	.359	99.675						
14	.028	.165	99.840						
15	.021	.121	99.961						
16	.004	.023	99.984						
17	.003	.016	100.000						
Extraction Method: Principal Component Analysis.									

According to the Rotated Component Matrix shown in table 4, convenience of buying products while sitting at home, abundance of offers and discounts on online purchase, variety of products, facility of online payment and cash on delivery, low prices, privacy of customers information and offering good quality product for sale can be grouped under Component 1 and named 'Convenience Factor'. Factual and realistic advertisement, disclosure of complete information about product and after sale service policies, past experience of online purchase, positive word of mouth and timely feedback by online trader can be grouped under Component 2 and named 'Credibility Factor'. Moreover, risk related to delivery of less quantity and low quality product, loss of money, non-delivery of product and non return of product or cash, if product is found defective can be clubbed in Component 3 and named Risk Factor.

TABLE 4: ROTATED COMPONENT MATRIX[a]

Measurement Items	Component		
	Convenience Factor	Credibility Factor	Risk Factor
There is convenience of buying the product online while sitting at home	.917		
Lot of offers and discounts are provided in online purchase of products	.898		
Variety of products are offered	.844		
Cash on delivery and online payment methods are convenient	.810		
Prices of online products are less in comparison to product available in the market	.796		
Privacy of customers information is maintained by online retailers	.786		
Good quality products are offered online	.783		
Advertisement of products offered online, show real and factual information		.890	
Complete information about the product is provided by online traders		.870	
Complete information about after sale services are furnished by online traders		.831	
Past experience related to online purchase puts positive impact on customers		.798	
Positive word of mouth motivates customers to buy product, online		.772	
Timely feedback is given by online companies to customers		.679	
Risk related to less quantity and low quality of product is involved in online buying			.781
There is risk of loss of money while buying product online			.716
There is risk of non-delivery of product, after making payment			.707
Risk related to non return of product or cash, if it is found defective			.677
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			

REGRESSION ANALYSIS

The regression analysis was conducted to reveal how different factors affect the use of online method of purchasing products. the overall model was also statistically significant (R^2=0.206, p<0.001). The adjusted R square value is 0.195 which reveals that the model has accounted for 19.5 percent of the variance in the dependent variable. In table 7 beta value of 0.361 indicates that a change of one standard deviation in the convenience factor will result in a change of 0.361 standard deviation in convenience factor and applied to other explore factors also. Here F value shown in table 6 is 18.692, p<0.000, which is highly significant.

TABLE 5: MODEL SUMMARY[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.454[a]	.206	.195	1.25649	.206	18.692	3	216	.000	1.489
a. Predictors: (Constant), Convenience Factor, Credibility factor, Risk factor										
b. Dependent Variable: acceptance of online buying										

TABLE 6: ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	88.531	3	29.510	18.692	.000[a]
	Residual	341.014	216	1.579		
	Total	429.545	219			
a. Predictors: (Constant), Convenience Factor, Credibility factor, Risk factor						
b. Dependent Variable: acceptance of online buying						

Correlation analysis was run to study the relationship between independent factors and dependent factor and test formulated hypothesis in table 7. Out of these variables considered only convenience factor (t=5.958), p<0.01, Credibility factor (t=2.399) p<0.001 and risk factor (t=-3.850) p<0.05 are statistically significant. The results indicate that convenience factor and credibility factor are positively correlated with the intention of using internet for buying products. However, risk factor is negatively correlated. Based on data analysis H1, H2 and H3 were supported statistically.

TABLE 7: COEFFICIENTS[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Null Hypothesis
		B	Std. Error	Beta	t	Sig.	
1	(Constant)	3.045	.085		35.950	.000	
	Convenience Factor	.506	.085	.361	5.958	.000	Accepted
	Credibility Factor	.204	.085	.145	2.399	.017	Accepted
	Risk Factor	-.327	.085	-.233	-3.850	.000	Accepted
a. Dependent Variable: acceptance of online buying							

FINDINGS

Online buying has become one of the most popular medium of shopping in India. This study helps to identify those factors which influencing the consumers intention regarding online buying of products in Himachal Pradesh. The convenience factor is the first factor that influence consumers intention. The price of the products offered online is less than the products available in the physical store. In addition to it, lot of offers and discounts are offered to customers by online retailers. There is convenience in buying product from home, cash on delivery method of payment and making payment through online payment method. Moreover, privacy of customers information is maintained and good quality products are offered by online retailers.

The second factor that was identified in the present study is Credibility factor. Advertisement of the products offered online are realistic and factual. Complete information about the product and after sale services is provided to customers by online trading companies. Positive word of mouth increases buying intention of buyers. Past experience of self, family members and friends increases buying intention of consumers and feedback is duly given by online retailers.

Third and the last, Risk factor is identified in the present study that influence consumer behaviour towards online retailers. Customers feel risky about quantity and or quality of product supplied by online purchase of products. They also feel risky about non-delivery of product and non return of product, if it is found defective. Moreover, customers feel that there is a risk of loss of money in case of online method of payment.

SUGGESTIONS

The users of online shopping in India has been rising. As this medium of shopping has become a game changer in Indian market, companies must try to build trust about online medium of buying products among customers. Convenience factor is explored as important factor in the present study, so companies must motivate consumers to buy products, online**.** Companies must provide proper product related information on websites. A safe and secured online payment system and cash on delivery system should be established. Companies must put focus on advertising their products to ensure that consumers are aware about benefits of buying product, online. Proper after sale service and feedback from online companies are important elements which must be taken into consideration. Companies must take appropriate steps to counter the perceived risk by customers related to delivery of proper quantity and quality products. Moreover, perceived risk about non-delivery of products, product return policy of retail companies and risk of loss of money in case of online method of payment, must also be taken care of.

CONCLUSION

Large number of consumers in India have started using internet for online shopping purposes. Companies like Dell computers. Rediff.com, Amazon.com, flipkart.com, snapdeal.com, Jabong.com etc., are largely using internet as a medium for selling their products and services throughout the world. This study conducted in Himachal Pradesh, helps to highlight that a number of factors which influence consumers intention to buy product, online. The convenience factor is the most important factor that influence consumers buying intention i.e., less price of product, many offers and discounts are offered, buying product, sitting at home, variety of product, good quality of products, cash on delivery method of payment and privacy of customers information is maintained.

Credibility factor also affect consumers intention to buy product online i.e., factual and complete information about products are provided by online traders. After sale services are duly provided, positive word of mouth, past experience of online buying also put impact on consumers online buying behaviour. Timely feedback about transaction is provided to customers.

Perceived risk factor affect consumer buying behaviour. Companies deliver good quality, proper quantity products timely. In India online trade is still at initial stage but there is a huge market to be explored by these online retail companies. In order to be successful, companies must take into consideration all three explored factors i.e., convenience factor, credibility factor and risk factor in mind while framing policies of the company. This will help online companies to frame appropriate marketing strategies and provide them with competitive edge.

LIMITATIONS AND SCOPE OF FUTURE RESEARCH

Many limitations were faced while conducting this study in Himachal Pradesh. Firstly, the data was collected from the urban area in Himachal Pradesh. So the analysis of results may not represent the perception of consumers of the whole state. Secondly, money was also a constraint faced during the study. If the data

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was collected at a large scale, the expenses of conducting research study would have been also high. Therefore, with the limited resources the study was conducted. Thirdly, the data was collected from sample size of only 220 respondents, which is relatively small. Hence, queries about accuracy of results, could be raised.

A scope of further research, a more comprehensive research approach should be applied to study the online shopping behaviour of consumers in developing nations like India. In general more comprehensive research should be conducted to obtain more insights and information, which would be useful for framing proper marketing strategies by online retailing companies.

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SERVICE QUALITY AND CUSTOMER SATISFACTION IN DTH SERVICES IN KANGRA, HIMACHAL PRADESH

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ABSTRACT

The main purpose of this study is to examine the relationship between service quality and customer satisfaction in DTH (Direct To Home) service. Better service quality and customer satisfaction both are the indicators of corporate competitiveness. For investigating the relation between service quality and customer satisfaction, convenient random sampling *was used to collect data from 180 customers of six paid DTH service providers in District Kangra of Himachal Pradesh. The results of the research indicate that there exist significant relationship between service quality dimensions and customer satisfaction. Assurance, Empathy, Network Quality, Convenience & Tangibles were found as the predictors of DTH service quality while Price, Other Factor & Assurance were found as the significant predictors of customer satisfaction in DTH services.*

KEYWORDS

Customer satisfaction, DTH services, DTH service quality and service quality.

INTRODUCTION

In recent years, service quality and customer satisfaction have become major areas of concern for research scholars, managers and practitioners. Both of these aspects have not yet been thought off considerably by DTH service providers. Besides this, DTH sector has shown a remarkable growth in last decade. It is because of the technological innovations and financial revolutions that have lead to the high pace in this sector. In order to retain this growth, DTH sector really has to put its efforts to define service quality, forms and the impact of quality deficiencies.

DTH SERVICE PROVIDERS IN INDIA

At present, there are total seven players providing DTH services to the Indian customers, i.e., DD Direct Plus, Airtel Digital TV, Dish TV, Reliance Digital TV, Sun Direct, Tata Sky and Videocon d2h. Out of these, six are paid DTH service providers while one government owned DTH service provider (DD Direct Plus) provides free services across the nation. The sector has shown significant growth in last five years and DTH subscriber base has reached to 54.52 million in the year 2012 in comparison to 11.10 million in 2008 **(TRAI, Letter No. 1(516)/2013-RTI)**. Within a short span of five years, the DTH users have increased approximately five times (Table no.1).

TABLE NO. 1: GROWTH OF PAY DTH SERVICE SECTOR IN INDIA

Sr. No.	Year	Subscriber Base (in Millions)
1.	2008	11.10
2.	2009	19.10
3.	2010	32.05
4.	2011	44.21
5.	2012	54.52

Source: - TRAI, Letter No. 1(516)/2013-RTI

So it can be said that Indian market is attractive both in terms of volume as well as growth rate and create great opportunities for DTH service providers to expand their wings. But still both service quality and customer satisfaction need high attention and concern to retain this growth in near future.

LITERATURE REVIEW

Gronroos (1984) stated that perceived quality is the outcome of an evaluation process, where customer puts the perceived service against the expected service. **Parasuraman et al., (1985, 1988)** proposed that service quality can be measure through functional quality dimension having five components (tangibility, reliability, responsiveness, assurance, empathy). **Gronroos (1993)** defined three dimension service quality as functional quality, technical quality and image of the service provider. **Smith et al., (1999)** stated network quality, performance of technical team, customer care department, billing system, and perceived corporate image of the service provider as components of service quality. **Woo and Fock (1999)** founded that transmission quality and network coverage are the important factors of customer satisfaction. **Menezes and Carvalho (2009)** examined the impact of new technology on free to air TV industry and found that the amount of benefits gained from digitalization is conditioned by how the service was regulated and by socio-economic factors of the country. **Hanif *et al.*, (2010)** found that price fairness and customer services play an important role in customer satisfaction. **Siew-Phaik Loke *et al.*, (2011)** found a significant and positive relationship between service quality dimensions and customer satisfaction excluding in the area of tangibility. **Rahman *et al.*, (2012)** proposed a model that focused on the relationship between technical quality, functional quality, corporate image of service provider and service quality towards customer's satisfaction. **Gulati *et al.*, (2011)** picture and sound quality played an important role in customer satisfaction. **Dhinakaran (2012)** recommended that better network coverage and high picture clarity have significant role in DTH services. **Madan *et al.*, (2012)** found that DTH customer gives the maximum weightage to tangibles dimension of service quality. **Shakira Khan and Raj (2013)** reported nine dimensions of DTH service quality namely assurance, reliability, tangibles, empathy, responsiveness, network quality, convenience, price and other factors. In case of customer satisfaction, **Sutha and Jayanthi (2013)** found non-significant difference between various attributes, while significant difference was found as far as customer preference is concerned. **Jotheswari *et al.*, (2014)** stated that DTH service providers are doing well in the field of customer awareness, customer perception, but choice of channels and charges, packages, to provide prompt information, signal quality, and signal breakage in rainy season etc. are the areas that needs more concern.

SERVICE QUALITY DIMENSIONS FOR DTH SERVICES

For the present study nine determinants (Assurance, Reliability, Tangibles, Empathy, Responsiveness, Network Quality, Convenience, Price and Other Factors) were taken as the dimensions of DTH service quality. Khan and Raj (2013) explained all these nine with 29 statements as determinants of DTH service quality. Customer satisfaction was operationalised by four statements which are related to service quality and product quality provided by Direct-To-Home (DTH) service provider.

NEED OF THE STUDY

Service quality is the key for success in the future; however it will not be limited only to products. Therefore, successful DTH operators need to consider service quality in every aspects of their functioning. Hence it can be said that quality is a critical issue for the DTH services. Further the study acquires importance because of the high growth rate of DTH services in India and very few detailed studies have been carried out in the field.

OBJECTIVES AND HYPOTHESIS OF THE STUDY

Following main objectives are framed for the present research work.
1.   To explore the key dimensions of service quality for Direct-To-Home (DTH) services.
2.   To ascertain which aspects of service quality has significant impact on customer satisfaction.

HYPOTHESIS

$H_0 1$: Dimensions associated with service quality are significant drivers of overall customer perceived service quality in the Direct-To-Home (DTH) sector.
$H_0 2$: DTH service quality dimensions have significant positive influence on customer satisfaction.

RESEARCH METHODOLOGY

The present study is empirical in nature and is based on both primary as well as secondary data. The relevant secondary data has been collected from existing literature on service quality, various journal and websites of different national and international institutions. The Primary data was collected from the respondents by using questionnaire to know their perception about dimensions of service quality and customer satisfaction. Price was taken as important determinants of DTH service quality so the customer of only paid DTH service providers (Airtel digital TV, Dish TV, Reliance Digital TV, Sun Direct, Tata Sky, and Videocon d2h) were selected.

STUDY AREA

The present research work was carried out in district Kangra of Himachal Pradesh. Kangra is most populated district of the Himachal Pradesh having the total population of 1,510,075, with literacy rate of 85.67 percent.

DATA COLLECTION

For the present study purpose a total of 200 customers from six DTH operators in district Kangra were approached by using convenient random sampling. Statistical calculations have been made, with the help of Microsoft excel and SPSS software. Appropriate tools for data analysis have been used as per the requirement of the study.

RESULTS & DISCUSSION

Total 184 questionnaires received but only 180 were found suitable for the study and remaining were rejected due to incomplete information.

DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

In the following table no. 2 demographic characteristics of the respondents is presented.

TABLE NO. 2: DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

Parameter	Airtel Digital TV	Dish TV	Reliance Digital TV	Sun Direct	Tata Sky	Videocon d2h	Total	%age
Age								
Less than 25 years	9	11	5	4	10	6	45	25
25-34 years	13	22	12	8	8	10	73	41
35-44 years	8	7	7	2	7	2	33	18
45-54 years	3	2	5	4	4	5	23	13
55 years and above	3	0	1	0	2	0	6	3
Total	36	42	30	18	31	23	180	100
Gender								
Male	21	25	22	12	20	17	117	65
Female	15	17	8	6	11	6	63	35
Total	36	42	30	18	31	23	180	100
Qualification								
Below secondary level	3	2	1	1	1	3	11	6
Secondary level	7	8	7	4	3	4	33	18
University bachelor degree	12	21	12	6	21	9	81	45
Masters/PG	13	9	9	7	3	6	47	26
others, specify	1	2	1	0	3	1	8	4
Total	36	42	30	18	31	23	180	100
Income								
Upto 10,000	3	7	2	4	4	5	25	14
10,001 to 20,000	11	18	6	3	11	6	55	31
20,001 to 30,000	8	10	14	8	8	4	52	29
30,001 to 40,000	6	1	3	0	3	3	16	9
40,001 to 50,000	5	4	1	2	1	3	16	9
50,001 and above	3	2	4	1	4	2	16	9
Total	36	42	30	18	31	23	180	100
Marital Status								
Married	26	31	20	12	23	19	131	73
Unmarried	10	11	10	6	8	4	49	27
Total	36	42	30	18	31	23	180	100
Profession								
Service	16	19	13	10	12	7	77	43
Own business	14	9	8	6	6	12	55	31
Student	3	6	4	2	6	2	23	13
Others, (Specify)	3	8	5	0	7	2	25	14
Total	36	42	30	18	31	23	180	100
Duration of Dealing								
Less than 1 year	0	6	7	0	7	6	26	14
1-2 years	10	7	7	1	9	7	41	23
2-3 years	14	12	8	7	3	6	50	28
3-4 years	5	11	3	5	4	4	32	18
4-5 years	1	3	3	2	4	0	13	7
5 years and above	6	3	2	3	4	0	18	10
Total	36	42	30	18	31	23	180	100
Monthly Expenditure								
Less than 250	24	33	21	12	21	17	128	71
251 to 350	7	6	4	5	6	4	32	18
351 to 450	4	3	4	1	3	2	17	9
451 and above	1	0	1	0	1	0	3	2
Total	36	42	30	18	31	23	180	100

Source: - Data Collected through Questionnaire Method

Table 2 represents the demographic characteristics of the respondents used for the study. The results shows that about 41 percent of the respondents belong to the age group 25-34 years followed by the age group less than 25 years about 25 percent. The results indicate that about 65 percent of the respondents are male and 35 percent are female respondents. This section describes the education level of the respondents and states that 45 percent of the respondents have university bachelor degree and about 26 percent having Master/PG qualification. Talking about the income of the respondents, the results enumerate that 31 percent of the respondents lies in the income group 10,001 to 20,000 per month followed by income group 20,001 to 30,000 per month accounts for about 29 percent. It was found that about 73 percent of the respondents were married and about 27 percent were unmarried. Present section also define the profession of the respondents and states that about 43 percent of the respondents are in services and about 31 percent of the respondents have their own business. It was found that about 28 percent of the subscribers using DTH services from 2-3 years and 23 percent from last 1-2 years. The results informed that most of the subscribers about 71 percent spent less than 250 rupees on DTH services and about 18 percent spent rupees 251 to 350 on DTH services.

RELATIONSHIP BETWEEN SERVICE QUALITY AND ITS DIMENSIONS

The correlation analysis was used to find the strength of the relationship between service quality and its dimensions. The result of Pearson correlation (table no.3) shows that all the dimensions of service quality are positively associated with it and strongest association was found between Service Quality and Assurance.

TABLE NO. 3: CORRELATION: SERVICE QUALITY AND ITS DIMENSIONS

	Assurance	Reliability	Tangibles	Empathy	Responsiveness	Network Quality	Convenience	Price	OtherFactor
Service Quality	0.635	0.328	0.463	0.535	0.548	0.471	0.399	0.193	.343

Source: - Data Collected through Questionnaire Method

To find out the best predictors of service quality and to identify which aspects of the service quality has significant influence on service quality; stepwise regression was used with the dimensions of service quality as the predictors. In the model nine dimensions of service quality dimensions were taken as independent variables and service quality as the dependent variable. The model summary Table 4 reports the strength of the relationship between the model

and the dependent variable. The value of R^2 indicates the variance of the model in the service quality construct in DTH sector. It can be seen that regression model explained 88.1 percent of the variance in the DTH service quality construct. As shown in table 5 there are only five variables (Assurance, Empathy, Network Quality, Convenience and Tangibles) added from the original nine and are significant predictors of service quality in DTH sector.

TABLE NO. 4: REGRESSION MODEL SUMMARY: SERVICE QUALITY AND DIMENSIONS OF SERVICE QUALITY

Model	R	R^2	Adjusted R^2	Std Error of Estimate
5	0.939	0.881	0.878	2.915

Source: - Data Collected through Questionnaire Method

1. Independent Variable:- Dimensions of Service quality
2. Dependent Variable:- Service Quality

TABLE NO.5: STEPWISE REGRESSION ANALYSIS: SERVICE QUALITY

Variable	Beta	t- Value	Significance level	Collinearity Statistics	
				Tolerance	VIF
(Constant)	16.906	6.770	0.000		
Assurance	1.215	13.862	0.000	0.877	1.140
Empathy	1.646	12.561	0.000	0.893	1.120
Network Quality	0.999	15.078	0.000	0.945	1.058
Convenience	1.291	11.270	0.000	0.975	1.025
Tangibles	1.021	10.662	0.000	0.848	1.179

Source: - Data Collected through Questionnaire Method

RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER SATISFACTION

The correlation analysis was used to find out the strength of the relationship between service quality and customer satisfaction. The result of Pearson correlation (table no.6) presents that dimensions of service quality are positively associated with customer satisfaction and strongest association was found between Customer Satisfaction and Price.

TABLE NO. 6: CORRELATION: SERVICE QUALITY AND CUSTOMER SATISFACTION

	Assurance	Reliability	Tangibles	Empathy	Responsiveness	Network Quality	Convenience	Price	Other Factor
Customer Satisfaction	0.470	0.380	0.388	0.436	0.406	0.396	0.378	0.529	0.419

Source: - Data Collected through Questionnaire Method

To find out the best predictors of customer satisfaction and to identify which aspects of the service quality has significant influence on customer satisfaction; stepwise regression was used with the dimensions of service quality as the predictors. In the model nine dimensions of service quality dimensions were taken as independent variables and customer satisfaction as the dependent variable. As shown in table 8 there are only three variables (Price, Other Factor and Assurance) added from the original nine and are significant predictors of customer satisfaction in DTH sector.

TABLE NO. 7: REGRESSION MODEL SUMMARY: SERVICE QUALITY AND CUSTOMER SATISFACTION

Model	R	R^2	Adjusted R^2	Std Error of Estimate
3	0.585	0.448	0.434	2.387

Source: - Data Collected through Questionnaire Method

1. Independent Variable:- Dimensions of Service quality
2. Dependent Variable:- Customer satisfaction

TABLE NO. 8: STEPWISE REGRESSION ANALYSIS: CUSTOMER SATISFACTION

Variable	Beta	t- Value	Significance level	Collinearity Statistics	
				Tolerance	Tolerance
(Constant)	4.965	3.202	0.002		
Price	0.448	4.137	0.000	1.000	1.000
Other Factor	0.273	2.713	0.007	0.998	1.002
Assurance	0.154	2.297	0.023	0.998	1.002

Source: - Data Collected through Questionnaire Method

HYPOTHESIS TESTING

Assurance, Empathy, Network Quality, Convenience and Tangibles were found as the dimensions of DTH service quality. Thus the hypothesis **H$_0$1**: Dimensions associated with service quality are significant drivers of overall customer perceived service quality in the Direct-To-Home (DTH) sector is partially accepted.

Price, Other Factor and Assurance were found as the significant predictors of customer satisfaction in DTH services. Same here the hypothesis **H$_0$2**: DTH service quality dimensions have significant positive influence on customer satisfaction is partially accepted.

FINDINGS

From the present study, major findings drawn are as under:

1. Most of the respondents were from the age group 25-34 years and male respondents in the present study were about 65 percent. It was found that majority of the respondents were well qualified and total married respondents were 73 percent. About 31 percent were in the income group 10,001 to 20,000 rupees per month followed by income group 20,001to 30,000.
2. Results indicated that about 28 percent of respondents are using DTH services from last 2-3 years. Most of the respondents were paying less than 250 rupees per month on DTH services.
3. It was found that nine dimensions are positively associated with DTH service quality and the main predictors of the DTH service quality are Assurance, Empathy, Network Quality, Convenience and Tangibles. Empathy was found as the best predictor of service quality in DTH services.
4. A positive association was found between the dimensions of DTH service quality and customer satisfaction. Price, Other factor and Assurance, were found as the three predictors of customer satisfaction in DTH sector. Price appeared as best predictor of customer satisfaction in DTH services.

SUGGESTIONS

In order to improve the DTH service quality, DTH operators should have to focus on the dimensions of Assurance, Empathy, Network Quality, Convenience and Tangibles. It is very important to give individual attention to the subscribers and to know about their specific needs. Customer satisfaction can be enhanced by paying proper attention towards Price, Other factors and Assurance. In order to satisfy the customers, service providers should provide the services at reasonable price and consider the budget objectives of the DTH users while framing price policy for the services.

CONCLUSIONS

This research paper has outlined the dimensions of DTH service quality and its relationship with customer satisfaction. A significant positive relationship was found between DTH service quality and its dimensions. Out of all the nine dimensions of service quality, Assurance, Empathy, Network Quality, Convenience & Tangibles were found as the main governing dimensions of DTH service quality. Adding more to the significant relationship which exists between the dimensions of service quality and customer satisfaction, Price, Other Factor and Assurance were found as the significant predictors of customer satisfaction in DTH services. Therefore, in the light of above stated facts, it can be said that DTH service providers have to focus on Empathy, Convenience and Assurance to deliver high quality services. In order to ensure high customer satisfaction level, DTH service providers have to put efforts to provide services at reasonable price and to meet budget objectives of the subscribers.

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