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RESPONSIBILITY ACCOUNTING IN SMALL AND MEDIUM SCALE INDUSTRIES MANUFACTURING AUTO COMPONENTS

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ABSTRACT

Responsibility Accounting refers to the management control system of accounting and reporting at divisional level of the organization. This research paper focuses on the concept of Responsibility Accounting and its applications in the Small and Medium Scale Auto Component Manufacturers. The ever increasing demands for all types of vehicles puts extra increasing pressure on the Auto Components manufacturers, as these organizations manage the entire raw materials inputs for the large scale auto manufactures.. So it has become quite essential to measure and to control the performance of Production and other supporting divisions in the SME Auto Components. The performance is to be evaluated on the basis of divisional Profitability and for this; the Profit Center would be the strategic tool to be applied for the performance measurement.

KEYWORDS

Divisional Check, Performance, Profitability, Reporting and Strategy.

INTRODUCTION

Decentralization is now days a common process followed in all types of business organizations. It is the process of delegating decision authority and responsibility to the functional divisions. In centralization, a limited amount of authority is delegated. In decentralization, a significant amount of authority is delegated to the middle or lower level management. The large scale organizations always believe in decentralization and operate their key functional activities such as production, marketing, sales etc. accordingly. The decentralization is quite common now days due to the product or service varieties, branch networks and wide spread business areas.

In the small and medium scale organizations, usually the decision making is often rest in the hands of the top management or the owners. They highly follow the system of centralization. But the changing scenario of the small and medium scale organizations is now also demanding for the decentralization at least up to a certain extent. When the division is decentralized, then it considers as a separate responsibility center which carries entire responsibility of the given task. The responsibility center shows input output relationship very intensely. The divisional managers are held responsible for the performances of their respective divisions and the performance of each division is to be measured in the financial terms. Such a financial performance of the division can be measured by adopting the system of responsibility accounting.

Responsibility accounting is a management control system based on the principles of delegating and locating responsibility at the divisional level. Responsibility accounting is a system under which managers are authorized to decisions making, and holding responsibility for each activity that occurs within a specific area of the company. Under this system, managers are made responsible for the activities of segments. These segments may be called departments or branches or divisions or units.

OBJECTIVES OF STUDY

This particular research has been carried out for the following purposes,

- To evaluate the divisional performance in the Small and Medium scale (SME) Auto Components firms considering the ever increasing demands of auto vehicles.
- To apply Responsibility Accounting System in these divisions.
- To explain concept of Profit Center to these organizations

SIGNIFICANCE OF RESPONSIBILITY ACCOUNTING IN SMALL AND MEDIUM SCALE (SME) AUTO COMPONENTS

The present performance of the automobile sector is fabulous. It can be explained with the given data:

TABLE 1: SALES PERFORMANCE OF AUTOMOBILE VEHICLES (NUMBER OF VEHICLES SOLD)

Segments	2008- 2009	2009 – 2010 Up to Oct.2010	% Change
Cars	103227	143976	39
Commercial Vehicles	29842	49086	61
3 Wheelers	27525	33144	20
Motor Bikes	562349	656119	17
Scooters	97129	148247	53
Total	*894380*	*1120081*	*25*
Exports	*107424*	*201543*	*88*

Source: Manual- Society of Indian Automobile Manufacturers (SIAM)

The efficiency and effectiveness in the performance of the large scale automobile manufacturing organizations largely depends upon the performance (especially the production performance) of the small and the medium scale auto ancillaries. The timely and quality supply of all types of auto components, spare parts, equipments etc. is entirely controlled by the SME auto units. So it is essential to measure the performance of these types of organizations and to decentralize the key divisions therein.

The SME auto component industries in India have about *500 organized and 600 unorganized firms*. Chennai and Pune are the main centers of the auto ancillaries. These types of industries manufacture the components of the automobile vehicles. The SME auto component industries are production- wise categorized as follows:

TABLE 2: CATEGORY OF SME AUTO COMPONENTS INDUSTRIES

Components	% Market
Engine Parts	31
Drive Transmission and Steering Parts	19
Suspension and Brake Parts	12
Electrical Parts	9
Body and Chassis	12
Equipments	10

Source: Manual- Auto Components Manufacturing Association of India (ACMA)

Note: The Indian auto components industries have Original Equipment manufacturing of 50%, Replacement Market of 35% and Export Market of 15%.

The auto components manufacturing units are running their businesses on small and medium scale basis. These types of units have their fixed direct customers and these customers are the large scale automobile organizations which manufacture different types of vehicles.

SCOPE OF RESPONSIBILITY ACCOUNTING IN SME AUTO COMPONENTS UNITS

The automobile sector is performing exceptionally well in recent period and the SME auto components units have steady and ever increasing markets. Many of the SME units are enjoying monopoly up to the large extent in their selling. They have regular components supply to the big automobile houses such as Tata, Mahindra, Bajaj etc. The annual demand is fixed so the production scheduling is well preplanned. The concept of Responsibility Accounting has wide scope in such types of units especially for the production divisions.

THEOROTICAL BACKGROUND OF RESPONSIBILITY ACCOUNTING

*"*Responsibility Accounting is a system of Management Accounting under which accountability is established according to the responsibility delegated to various levels of management and Management Information and Reporting System instituted to give adequate feedback in terms of the delegated responsibility. Under this system, division or units of an organization under a specific authority in a person are developed as Responsibility Centers and evaluated individually for their performances." (Institute of Cost and Works Accounts of India)

*"*Responsibility Accounting or Profitability Accounting or Activity Accounting which means the same thing, is a system that recognizes various decision or responsibility centers throughout the organization and traces costs (and revenue, assets and liabilities) to the individual managers who are primarily responsibility for making decisions about the costs in question". (Charles T. Horongren)

To simplify with, the term Responsibility Accounting refers to an accounting process that reports how efficiently and effectively the managers of responsibility centers have fulfilled their responsibility. It is also known as Activity or Profitability Accounting. Such a system has great relevance of the cost accounting. All the functional divisions in any organization have performance responsibility usually of high output and cost controlling. The managers of the divisions are held accountable for the incurrence and control of the costs of their respective divisions. However, the divisional revenues are neglected.

The responsibility accounting is quite important for the firms for measuring the separate performance of the divisions there in. However, all the divisions are not exactly performance oriented, but all the divisions are responsibility oriented and hence these are the responsibility centers. An application of responsibility accounting is quite significant because of the following reasons.

1. It enables the identification of individual managers responsible for satisfactory or unsatisfactory performance.
2. The divisions and the employees therein are motivated for quality performance knowing that it is financially measurable.
3. Responsibility accounting system provides readymade Reporting system of the performance of the divisions. It provides a framework for the managerial performance appraisal and accordingly motivates managers to act in the best interests of the firm.

With reference to the definitions specified above, each functional division or unit within the organization has a separate individuality, clearly delegated responsibility of performance and thus, to be considered as a separate Responsibility Center. The performance of each Responsibility Center is financially measured on the basis of simple accounting principles as costs incurred for and revenues generated by that center. Responsibility accounting is a control device for the performance of the division. Each separate division like production, marketing, sales etc. should have to prepare its performance reports with reference to costs and revenue aspects. Here, the performance measurement is quite simple and it is done on the basis of only,

1. Total Actual Costs incurred in that division for the period or for the job against the predetermined Budgeted Costs.
2. Net Revenue generated at that division for the period or for the job against the predetermined budgeted revenue. The revenue may not be the sales of the organization.

DIVISIONAL OR RESPONSIBILITY CENTER 'REVENUES'

For any company, revenue is the total amount of money received from the goods sold or services provided during a certain time period. It also includes all net sales, exchange of assets; interest and any other increase in owner's equity and is calculated before any expenses are subtracted. The company's net profit is calculated by subtracting expenses from revenue. In terms of reporting revenue in a company's financial statements, different companies consider revenue to be received, or "recognized", different ways. For example, revenue could be recognized when a deal is signed, when the money is received, when the services are provided, or at other times. There are rules specifying when revenue should be recognized in different situations for companies using different accounting methods, such as cash basis and accrual basis.

But the Responsibility Centers' revenues are different from the company's revenues. These revenues are based on actual output (quantitative and qualitative). The divisional revenues are entirely different to the organizational revenues (sales turnover). In fact the divisional revenues are extremely difficult to evaluate because all the divisions are not output oriented or their output does not add anything in the profitability of the organization. Again, these revenues may or may not be the financial revenues. E.g; Accounts and other administrative divisions are supporting divisions only. These departments are efficient and not effective and hence are not the revenue oriented. But some divisions like Production, Marketing, Sales, R&D, Quality Control, Finance etc. are directly or indirectly linked up with the profit performance of the organization. These departments contribute something in the revenues and the profits of the organization. So, separate performance measurement of these divisions is essential to improve performance of the whole organization. In other words, it can be said that, when the organization is in the profits, it is not essential that all the divisions are performing at the given level and contributing in the profits, but when all the divisions are performing at the given level and contributing in the profits, the organization surely earns the profits. Accordingly, the key functional divisions of the organizations should be the Profit Centers. The sales incurred by the organization are the revenues in real terms, but for using the responsibility accounting concept, the Standard or Average estimated Sales for the period are taken and not the actual sales incurred. This enables to measure the performance of the sales division. For other divisions, the revenues can be as under,

TABLE 3: DIVISIONAL REVENUES

Divisions	Revenues options
Production	Quick Output in units in the given capacity, Cost saving and Zero defect production
Marketing	Generating new customers, Searching new innovative modes of marketing and Cost saving
Finance	Optimum capital structure, Economical mode of finance, Strategic investments decisions and Liquidity
R&D	Increase in sales due to innovative research and designs.

The revenues options shown in the Table 3 are more or less financial and affect the profits of the company up to a great extent. These revenue options can be the performance measurement tools for the respective divisions. But ultimately, the sales of the company are only the direct revenues.

PROFIT CENTER CONCEPT

According to Peter Drucker, "Profit Centers divide a company into smaller entities, allowing entrepreneurs to measure results more easily. These results can be used to hold each unit accountable for desired profit levels or simply to ensure that they are generating sufficient profits".

Thus, in an organization when financial performance of the center, division or department is evaluated in terms of profits (revenue – expenditure) then the center, division or department is termed as the Profit Center. It is a separate segment of a business for which costs, revenues and profits are separately calculated. It is a branch or division of the company that creates Profits individually and separately from the main organization. The costs (which are direct divisional costs) are subtracted from the revenue of the division. (by eliminating Allocated costs which are common to all divisions in the organization.)

Profit Center is also called as the Contribution Center or Financial Performance Center. The organization can create better management control on its operations by converting its key functional units into the profit center.

Profit Center is a segment of business organization, which is responsible for the cost it incurs as well as the revenue it generates. It is a profit making responsibility center in the organization. The organization has an opportunity to convert its key divisions (production, marketing and sales) into the profit centers. It is a strategic tool of the performance measurement and strong management control. Profit Center is responsible for the Profits (Revenues minus Costs of that division) of that particular division.

The large scale manufacturing units often use the profit center system by converting their main functional divisions such as production, marketing or sales, into the profit centers. In this case, they decide Transfer Price for the internal transfers of goods or services. It is the price at which divisions of a company transact with each other and these are treated as the profit centers. The transactions may include the trade of raw materials, components and specialized services also. But for small or medium scale manufacturing units, such a system is not followed because of their restricted organizational structure, limited expertise skills and lower profitability. Many of the units have lack of departmentation also. These companies have good opportunity of converting their major functional division (usually the production division) into the profit center.

FIGURE 1: FUNCTIONAL DIVISION AS A PROFIT CENTER

The usefulness of Responsibility Accounting is purely the internal control aspect for the company. It enables company to establish internal control over the performance of its key functional divisions. When the division has to be converted into the profit center, the performance of the division is measured in terms of divisional profits and divisional profit is ascertained by deducting divisional expenditure from the divisional revenues (As mentioned in Table 3) or from the standard (budgeted) sales of the main organization.

RESEARCH PROBLEM STATEMENT

This research study is based on two statements of Hypothesis (H) i.e. H-0 and H- 1

H 0 - The SME auto components manufacturing units usually follow any traditional system for their divisional performance measurement.

H- 1 - The SME auto components manufacturing units are not familiar to the concept of Responsibility Accounting as a performance measurement tool.

RESEARCH METHODOLOGY

This research paper is based on face to face interaction with SME auto components located in Pune (Maharashtra.)

The relevant primary data for this research has been collected through personal visits to 3 SME auto components units. The selected units are in manufacturing of the components like gear boxes, steering wheels for four wheelers, sheet metal pressing etc. All these units are selling their components to commercial vehicles and light motor vehicles manufacturers. The annual turnover of the units is between Rs.50 crore to Rs.300 crore. The primary data is consisted of cost and expenditure details of the units, sales turnover, profit margin and the major practical problems faced by the SME auto components in their regular operations.

The secondary data is collected from the published reports of the selected units, relevant reference books and websites.

OBSERVATIONS AND FINDINGS

From the research it is observed that the selected SME auto components units have good market demand and ever increasing sales turnover every year.

However these units have major proportion of their cost investment in the manufacturing activity only (about 75% to total costs). The manufacturing costs are uncontrollable up to a great extent. So, it has become quite essential to establish Responsibility Accounting system in the Production Divisions of the units.

At present, these units evaluate performance of their production divisions on the basis of quick and timely supply as per the demands**.** (Accordingly **H- 0** is tested and correct.) They are ready to compromise with increase in costs for maintaining quick and quality supply of the product components. Due to this, the cost control over production may become problematic.

The units measure performance of their Production Division with the following criteria. ***(*H-0*)***

Criteria 1: Timely and quick supply as per the orders.

Criteria 2: Zero defect production

Criteria 3: Standard Cost v/s Actual Cost

However, these units do not follow any particular criteria for performance measurement of their divisions. The criteria mentioned above are only the traditional criteria. The units are experiencing some common problems. These are,

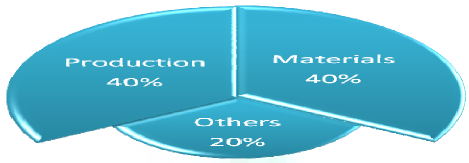
1. Use of traditional costing system.
2. Very lower profit margin of maximum 8%.
3. Not allow to decide the final prices for the selling of components. The clients are the price makers and they force to negotiate the final prices of the auto components.

4. The actual costs incurred are many times much higher than the standard costs. The cost standards are set on total cost basis only.

*(*Accordingly **H- 1** is tested and correct.)

The SME units incur total 80% of its Total Cost on actual manufacturing and materials purchasing. The other divisions in the units do not have separate individuality and are treated as other divisions only. The units do not have the divisions like marketing and R&D as the customers are fixed and they only decide for the components designs. The overall production output is fully customized. The units are lacking of specific organizational structure. The production division is the key and only division in the units. The other divisions are treated as the administrative units.

FIGURE 2: COST STRUCTURE OF THE SME AUTO COMPONENTS UNITS



APPLICATION OF RESPONSIBILITY ACCOUNTING SYSTEM (PROFIT CENTER ACCOUNTING)

An application of Responsibility Accounting System in the production division of the SME auto components units is quite simple. They can use the following type of accounting system and measure the performance accordingly,

STEPS FOR TURNING OUT PRODUCTION DIVISION AS A PROFIT CENTER

1. To transfer all the Prime Costs and Factory Overheads to Production Division. or
2. To transfer entire Prime Costs but to transfer only specific Factory Overheads to the Production Division only after proper classification,

Example: SME Auto Component Unit X.

X company has average turnover of Rs.325 crore (aprox.). This company has big customer like Tata Motors which regularly purchases the Sheet Metal Pressing Components for its light vehicles like Indica, Indigo and Safari.

The production related costs of the X Company are given below,

TABLE 4: PERFORMANCE REPORT OF THE PRODUCTION DIVISION FOR THE A.Y 2009-10

Heads	Standards.	Actual	Actual
	Rs. (in Crores)	Rs. (in Crores)	Rs. (in Crores)
Prime Cost (Entire)			186.00
Long Term Variables:			
Power and Fuel		10.10	
Factory Electricity		1.80	11.90
Fixed Controllable:			
Indirect Wages and Salaries		30.40	
Repairs and Maintenance of Machinery		5.70	
Repairs and Maintenance of Shafting		1.40	
Belting Repairs and Maintenance		0.70	38.20
Total Costs Transferred to Production Division			**236.10**
Profit from Profit Center	**88.90**		
Sales of the Company (Standard or average figure)	**325.00**		

Factory Overheads (Nature of Cost wise)

Long Term Variable: Power and Fuel and Factory Electricity (100% transfer)

Fixed Controllable: Repairs and Maintenance of Machinery and Shafting and Renewals and Indirect Wages and Works Salaries (100% transfer)

Fixed Uncontrollable: Depreciation on Machinery and Shafting and Factory Rent (**not** to be transferred).

Sales of the Company: The sales are taken as the standard or average annual turnover. The actual sales can be more or less than it. However, the company always tries to maintain the expected standard sales turnover. The costs transferred are actual. The company is not following the performance measurement system as Standard Costs v/s Actual Costs. The average turnover of the unit is Rs.325 crore and the profit margin is Rs.88.90 crore (i.e 27.35%). The task given to the production division is to retain the steady profit margin to the standard or average sales turnover for the given period and the performance of division can be controlled accordingly.

In the above table, the performance of the production division of the X Company is shown on the basis of the actual costs incurred on the manufacturing activities. The company has not determined the standard costs. Only the production and related costs are transferred to the production division. The Fixed Costs which are Uncontrollable such as Depreciation and Factory Rent are not transferred to the production division even though these are the factory overheads. This is because; these two overheads are to be incurred by the company in any cases (profit or loss, excess production or less production). This means, the costs which directly get affected by the change in production volume directly or indirectly, only are transferred to the production division. Here the performance of the profit center is its contribution in profits of the company or the profit earned only from the manufacturing activity which is Rs.88.90 Crore (27.35% to the Standard Sales).

Now the question can be raised that how the company will improve the performance of the production division? The company can improve it by,

1. The production division should follow the production planning exactly as per the standard and predetermined sales during the period.
2. The division should maintain the steady profit margin (e.g 27.35% in the above case.) to the standard sales turnover of the given period.
3. The division should make clear classification of the production costs as Controllable and Uncontrollable.
4. The division should keep continues track of its financial performance and for this; the performance reports (as shown in table 3 and 4) should be prepared periodically say monthly, quarterly or six monthly.
5. As the standard sales are taken for checking out the performance, it can create control on the performance of the sales division also. The sales division will try to achieve standard sales for the given period.
6. **Profit Margin** (27.35% in above case) should be the performance indicator for the division. The unit should consider this figure as a standard minimum margin for the period. An increase in divisional profit is the outcome of either increase in actual sales and or of maintaining steady production costs.

TABLE 5: AN INTERPRETATION OF PRODUCTION DIVISION'S PERFORMANCE (RATIOS) FOR THE A.Y 2009-10

Ratios	Results (Standard)	Results (Actual)	Variance
Divisional Profit Margin	**27.35%**	**?**	
Prime Cost to Standard Sales	**?**	57.23%	
Long Term Variables (Total)	**?**	Rs.11.90	
Fixed Controllable Costs (Total)	**?**	Rs.38.20	
Total Production Cost to Standard Sales	**?**	72.65%	
Actual Sales to Standard Sales	Rs.325	**?**	

The units should have to determine the standard budgeted figures for the above and check the results accordingly. They can go for necessary steps for improvement in the areas of unfavorable variances. This enables unit to keep direct control on the performance of the production division.

CONCLUSIONS AND RECOMMENDATIONS

An ultimate conclusion is about the performance measurement and control which lacks in the selected SME auto components units.

From the survey, it is concluded that the profits of the company hugely depend upon the sales turnover and the demand for SME auto components largely depends upon the market demand of auto vehicles which is ever increasing in the recent period.

The SME auto components units are not aware about the concept of Responsibility Accounting. They do not follow any authentic system for the internal performance control.

The job of production division is not to generate or to increase the sales, but to support the sales by keeping the expected output ready (quantitative and qualitative). If the company fails to generate the expected sales in any period, then there will be the wastage of overall costs which initially incurred on the production activity. The company can rectify this by adopting the system of Responsibility Accounting and especially by converting its production division into the profit center. In the large scale organizations, the production divisions usually perform as separate profit centers. But the SME organizations are still unaware about such a system of the performance measurement. These organizations can adopt the profit center system to measure the performance of their main divisions and especially of the production division. The profit center accounting system is simple to operate (as shown in the above tables). It is nothing but the Revenue and Expenditure Account for the concerned division. The profit calculated is the profit of the division and not the profit of the company. Thus, in profit center, the profit figure is used only for the performance measurement and it is the divisional profit and not the actual profit from the business operations. By adopting the Responsibility Accounting system, the top management will be in a better position to synchronize the overall goal congruence at divisional levels.

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LIBERALIZED FINANCIAL SYSTEM AND ECONOMIC DEVELOPMENT IN NIGERIA

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ABSTRACT

For the past twenty years, an enhanced financial sectoral deregulation has been a major economic tool in the agenda of most less developed economies and Nigeria is no exception. The discouraging level of growth with reference to the savings and investment culture of the people and government involvement in these economies has call to question whether financial sector liberalization have an impact on savings and investment in the economy and by extension on the level of growth and development of such economies. This study attempted to take a cursory look at the issue by examining the impact of financial system liberalization on savings and investment and by extension growth and development in Nigeria between 1997 and 2008. Some of the policy recommendations centred on the government creating an enabling environment for private investment to thrive. This will go a long way in helping to promote private investment with significant benefits in the long run for growth and development to the advantage of the citizenry and the economy at large.

KEYWORDS
Financial Sector Deregulation, Liberalization.

INTRODUCTION

Since the mid-1980s, financial liberalization in several African countries has been implemented largely through on-going structural adjustment programmes. As a prerequisite for the financial liberalization programmes, stabilization policies have been designed to ensure macroeconomic stability, low inflation and reduced budget deficits. The focus has been on liberalizing interest rates, deregulation of the financial sector, strengthening the banking system, introduction of new financial instruments, and development of securities markets, in particular the stock market. Stock market is viewed as a medium to encourage savings, help channel savings into productive investment, and to improve the efficiency and productivity of investments, (Ali,1995). The emphasis on the growth of stock markets for domestic resource mobilization has also been strengthened by the need to attract foreign capital in non-debt creating forms.

It is an established fact that financial system played an important role in the economic development of any nation. In this instance the financial services industry denotes an important link between the macro economic policies of a country with the rest of the globe and her basic role in this regard is resource mobilization and resource allocation among the productive sectors of the economy via financial intermediation; funds are attracted from the surplus sectors of the economy and channeled to the deficit sectors of the economy for investment purposes. Whenever any financial system is repressed, domestic capital are usually fragmented with adverse impacts on the quality and quantity of accumulation of real capital. The adoption of financial liberalization under any of these situations has been recommended so as to enhance the level of economic growth and development of less developed economies.

The objectives in this regard via the use of stabilization policies as a prerequisite to financial liberalization programmes had been to liberate interest rates, deregulate financial services sector, strengthen the banking system, introduce new financial products and develop the securities market. Adverse economic challenges that faced the Nigerian economy between the tail end of 1985 and 1986 led to the introduction of the Structural Adjustment Programme (SAP) and one of its major strategies was the adoption of appropriate pricing policies in all sectors with greater reliance on market forces and reduction in complex administrative controls. The deregulation of the financial market therefore led to an enabled market forces in determination of credit costs within the economy. This attracted a number of significant changes in the rules and regulations governing financial operations and these includes;

- Relaxation of controls on interest rates and also on conditions of granting banking licence.
- Abolition of credit ceilings and guidelines
- Complete deregulation of money and capital markets

In the light of the above, and according to the Central Bank of Nigeria Annual Report (various years) this resulted in a tremendous increase in the number of new entrants into the banking industry rising by over 100% from 58 banks in 1985 to 189 in 2004 prior to banking consolidation exercise which reduced the number of banks further to 24 banks. The banks' branches also rose from 1,288 in 1985 to 2,489 in 1993, thus bringing the kilometer per square of 689.4 in 1986 to 356.75 in 1993. The money and capital markets were also affected in one form or the other by the programme and a major development in the money market was the introduction of auction-based system in 1989 on Federal Treasury Bills and Treasury Certificates issuance.

With the post-consolidation situation, the universal banking model is being reviewed and this will definitely portray Nigeria as a country with policy inconsistency since the current policy is less than five years in operation and we are reverting back to the previous order. It is worthy of note that the current move could be of strong similarity with other less developed economies like Nigeria. In the light of current developments, Nigerian banks are to be categorized into national banks (N25 billion for banks operating in Nigeria only and N100 billion for banks with operations outside Nigeria) and regional banks (N15 billion minimum capital requirement and must have the word "Regional" in its name) (CBN, 2010)[2].

The major aim of financial liberalization is an enhanced economic performance via improved level of competitiveness with a robust efficiency posture within financial markets and with accrued benefits indirectly flowing to the coffers of non-financial sectors of the Nigerian economy. Since the application of the prescribed financial liberation, the Nigerian economy has not been able to experience impressive performances such as an enviable attraction of foreign investment or to checkmate capital flight.

The study is intended to critically assess the impacts of liberalization of the financial system on savings and investment and by extension on growth and development in the Nigerian economy over the period of 11 years between covering 1997 and 2008. Emphasis will therefore centre on the macroeconomic indicators of gross domestic product, inflation rates, and savings as well as investment variables in the economy.

The objectives of the study are:

1. To examine the nature and challenges of the financial systems.
2. To analyse and assess the concept of financial liberalization in the content and context of legal and institutional framework.

The study will proffer probable policy recommendations on the identified flaws in the financial system liberalization for the benefit of the economy. This will lead to an enhanced standard of living and by extension the desired economic growth and development will become achievable.

The study will also reveal how effective the various reforms in the financial services sector have been and thereby illuminate on areas requiring effective controls. The remaining part of the study is structured as follows: next is the literature review, followed by the theoretical framework. Methodology and analysis are in section IV. Discussion of findings, recommendations and conclusion is in the last section.

REVIEW OF RELEVANT LITERATURE

Financial liberalization in Nigeria commenced as an effort towards participation in the globalization of the world economies. The United Nations via International Monetary Fund (IMF) tends to achieve a union in the world economy and therefore launched a programme aimed at achieving a turn-around on the economic situation faced by many of the less developed economies. The programme was named Structural Adjustment Programme (SAP). Several objectives expected of the programme to be achieved include the following according to Central Bank of Nigeria (CBN, 2004)[3].

- Market liberalization to promote efficient resource allocation
- Expansion of savings mobilization base
- Promotion of investment and growth through market-based interest rates
- Foster healthy competition in the provision of services
- Laying the basis for inflation control and economic growth

Most developing countries liberalized their financial sector in an attempt to integrate globally by removing government interventions and restrictions. The reason behind the shift to financial liberalization is based purely on a straightforward implication of the following economic principles: financial markets allow proper allocation of savings to productive investments which accelerates economic growth. Generally, nations' wish to have a smooth consumption pattern over time and in the course of achieving this, financial liberalization allows them a smoother consumption pattern via international risk sharing.

They are less constrained by domestic endowments due to their ability to borrow from global financial markets by avoiding substantial falls in national consumption in case of dramatic decrease in output. Soyibo (1994)[4] observes that the reforms in Nigeria were carried out under conditions of severe macroeconomic imbalances and instability in the financial system. Financial systems liberalization came into being because it is believed that a well functioning system provides adequate support for economic development while its poor functioning causes more problems for development.

FINANCIAL LIBERALIZATION

The basic programme of financial liberalization contains two main components:

1. Removal of ceilings on interest rates to allow for market determined ones.
2. Reduction in quantitative controls to allow financial intermediaries greater control over the use of their liabilities. (Levine, 1996)[5].

Financial restructuring of the banking sector constitutes other aspects of financial sector reforms. These include the following as enunciated by World Bank, (1989)[6] report:

1. Causes of bank insolvency and restructuring or closing down of insolvent firms.
2. Improved management of banks.
3. Increased competition in the banking sector as well as the development of a more diverse range of financial institutions such as insurance and pension firms, development finance institutions et cetera.
4. Removal of entry barriers to private sector financial institutions.
5. Improved legal controls and powers that are of benefit to lenders.
6. Improved government supervision.
7. Reduction of taxation either directly or indirectly via large reserve requirements.
8. Development of money and capital markets.

LEGAL AND INSTITUTIONAL FRAMEWORK FOR FINANCIAL LIBERALIZATION

A. LEGAL FRAMEWORK

Liberalized financial systems cannot be effective without sound legal and institutional framework. Evolutionary and proactive strategies are possible approaches to financial system development, (Obstfeld and Taylor, 2004)[7]. In the evolutionary strategy, financial markets are allowed to develop gradually with the economy.

As major distortions or bottlenecks emerge, government intervenes through improvements or changes in laws or regulations. In this strategy, financial deepening and financial system development are basically market driven within an adaptable legal, regulatory and prudential framework. Sander and Kleimeier (2006)[8] see this as the appropriate strategy for African and other developing countries for three main reasons:

- Inadequate neutral incentive environment and market forces that is insufficiently strong for financial markets to develop by themselves.
- Lack of institution-building capacity to determine the pace and strength of financial markets development.
- Need for flexibility to allow for the use of the most efficient institutional set-up, required training infrastructure and choice of technology that is most suited to the local conditions and level of development.

The proactive approach suggested by Sander and Kleimeier seem to agree with the views of the World Bank (1989)[9], which sees the legal and institutional framework of most developing countries as inadequate to support modern financial processes.

B. INSTITUTIONAL FRAMEWORK

The legal, regulatory and prudential framework discussed in the preceding section is essential for fostering financial market functions and promoting and anchoring its institutional framework. The ultimate function of financial markets, as earlier indicated, is to mobilize and allocate resources through financial intermediation in order to accelerate the process of economic growth. The function is performed through two distinct but interrelated components (the money and capital markets). The money market and the capital market are inter-related. First, the development of the money market usually precedes capital market development. Second, the same institutions may operate actively in both markets. Hence, the money market serves as a source of liquidity for the long-term investment needs of operators in the capital market. Bloch and Tang (2003)[10] has argued that in order to develop and achieve the objective of supporting economic growth, the capital market requires environment in which government policies are generally favourable to economic growth. In such environment, resources are allocated in accordance with market forces rather than government directives. During the period 1970–1985, Nigeria's financial sector was characterized by financial repression, macroeconomic imbalances and instability (Soyibo 1994)[11].

Prior to 1970, banking regulations were largely prudential, aimed mainly at ensuring sound banking practices and protection. From the early 1970s, the aims remained broadly the same as in the previous years, but the control instruments became rather restrictive. The system was so regulated that by the mid-1970s, the Central Bank could stipulate what loans and advances each commercial bank should make to each of the sixteen different priority sectors of the economy, as well as maximum interest ceilings for agricultural and other priority areas (King and Levine, 1993)[12]. Government controlled 60 percent of commercial bank share capital while the Central Bank controlled 33 percent of the financial assets. Prior to the implementation of financial liberalization, government took no serious measures to establish appropriate legal framework under which the financial system would operate. No appropriate safety nets were established to safeguard against liquidity crises and no adequate regulatory and monitoring framework to prevent collusion and excessive risk-taking was put in place.

FINANCIAL LIBERALIZATION AND THE INFORMAL SECTOR

Financial liberalization acts directly on the formal sector financial system, through the removal of interest rate and other controls. As noted, however, the majority of small scale borrowers, particularly women, gain access to financial services through the informal sector.

For this reason, it is important to look at the indirect effects of financial liberalization on the informal sector, to see how the provision of, access to and use of financial services by women relative to men might change under liberalization. Few studies to date focus on the impact of liberalization on the informal financial sector. In terms of predictions, this depends to some extent on the view taken regarding dualism. There are competing views as to why Less Developed Countries (LDC) financial markets are characterized by segmentation, fragmentation, or dualism and thus about the nature of relations between the different segments and how these are likely to evolve (Nielsen et al, 2005)[13].

The theory of financial repression sees the development of informal sector finance as linked to distortions in financial markets caused by government controls, leading to the creation of parallel markets, to serve those crowded out of regulated markets by rationing. In this view, the informal sector should recede in favour of the formal sector, with interest rates converging, as liberalization proceeds. Savings will increase and move into the formal sector as interest rates rise, increasing the funds available for loan and investment. Informal sector operators may move into the formal sector as entry barriers, controls and taxes on the formal sector are removed or reduced.

An alternative view is that problems of imperfect information are the main cause of market segmentation and fragmentation, i.e. that high information and transactions costs lead to market failure and lack of institutional development (Nielsen et al, 2005)[14]. In this view, credit rationing persists even with liberalization, so that the need for the informal sector persists, or possibly expands, as demand for financial services grows under adjustment. To a large extent, the effects will depend on the degree of market integration prior to liberalization. They find little evidence of market integration between formal and informal sectors in four Sub-Sahara African countries including Nigeria. Some informal intermediaries place deposits with banks, mainly for security, since these are short-term and rarely interest bearing. Formal financial institutions are reluctant to lend to informal operators who on-lend.

THEORETICAL FRAMEWORK

Most developing economies implemented financial reforms as part of a larger market-oriented reforms since 1980s and in the light of this, several versions of the financial liberalization hypothesis exists (Aziakpono, 1999)[15], but the one mostly adopted particularly by less developed economies is the orthodox approach of McKinnon and Shaw. The orthodox approach in this instance suggests that financial liberalization increases both savings and investments and thus leads to enhance and efficient investment as posited by Shaw (1973)[16].

With the elimination of controls on interest rates, credit ceilings and direct credit allocation, financial liberalization is expected to lead to the establishment of positive interest rates on deposit loans. In such instance, it makes both savers and investors appreciate the scarcity of capital, leading to a reduced dispersion in profit rates amongst varying economic sectors, improved allocative efficiency and higher output growth, (Villanueva and Mirakhor, 1990)[17]. Though the financial liberalization theory places more emphasis on the desirable effects of raising interest towards equilibrium, it also postulates that the effect of a change in interest rate depends on whether the actual interest rate is below or above equilibrium. If below the equilibrium, investment is constrained by savings. An increase in the interest rate towards equilibrium will increase savings and investment. Therefore as long as the equilibrium interest rate is not reached, investment is positively related to the interest rate. Beyond the equilibrium however, increase in interest rate will have a negative effect on investment as the economy moves along the negatively-sloped investment demand curve, (Gourinchas and Jeanne, 2003)[18].

Against this backdrop which is based on the classical notions and beliefs, we have the Keynesian framework which believes that savings is positively related to income and investment is negatively related to the price of credit on which interest rate stands as a proxy. However, the proponents of this view concede that the interest rate might also have a positive effect on investment via the provision of credit.

This implies that as financial savings and the rate of interest are positively related, interest rate may also have a positive effect on investment through the process of financial deepening as well as the provision of credit to the private sector while it could be negative since an upward swing in the price of credit adjusted for inflation is expected to discourage investment spending in the economy. The net effect of interest rate on investment therefore will depend on the relative strength of its negative effect through the cost of investment and its positive effect through the provision of credit, (Eatwell, 1997)[19].

The Harrod-Domar Growth Model on the other hand posits that every economy must save a certain proportion of its national income if only to replace worn-out or impaired capital goods. However and in order to grow, new investments representing net additions to the capital stock are very necessary, (Esen, 2000)[20]. Therefore the variables that could stimulate the rate of savings in an economy apart from income, as well as how savings and capital formation (investment) could generate the required level of growth and by extension economic development in the developing economies like Nigeria become imperative as reflected in the formular below. It implies income (Y) as a function of the stated variables:

$Y = f(S, GCF, NBB, INF)$

Where

Y = Income or GDP

S = Savings

GCF = Gross Capital Formation or Investment

NBB= Number of Bank Branches

INF = Inflation

DESCRIPTION OF VARIABLES

GROSS DOMESTIC PRODUCT (GDP) data at current market prices. This is the Gross Domestic Product at current factor cost plus indirect taxes net of subsidies. It is the GDP valued at the market prices which purchasers pay for the goods and services they acquire or use.

AGGREGATE SAVINGS (S) is the part of the national income that would not be spent on consumer goods. Klein (2005)[21] defined savings as "abstinence from consumption, an exchange of present income against an equal amount of income in the future or against the security accompanying a store of wealth". In this instance, savings is not hoarding since it involves the productive use of funds not spent on present consumption.

GROSS CAPITAL FORMATION (GCF) This is also known as Gross Domestic Investment and it connotes the total change in the value of fixed assets plus changes in stocks.

NUMBER OF BANK BRANCHES (NBB) is the total number of branches per bank operating in the country at a particular period of time.

INFLATION (INF) is a deceleration of economic growth and a massive disequilibrium of international payments.

HYPOTHESIS OF THE STUDY

The following hypothesis is formulated in order to find answer to the problem of the study as stated above:

Ho: There is no significant difference on the impact of liberalized financial system on savings, investment, growth and development.

METHODOLOGY

The sources of relevant data utilized for this empirical work were collected from economic journals, internet sources, Central Bank of Nigeria Statistical Bulletins and Annual Reports, World Bank Reports, United Nations Development Programme (UNDP) Annual reports and other relevant periodicals. This study adopted the One- way Anova method of data analysis using Microsoft Excel Analytical tool to justify the study so as to be able to capture the impact of the study on the economy.

DATA ANALYSIS AND RESULTS

TABLE: RELEVANT DATA ON THE REQUIRED VARIABLES OF STUDY

YEAR	GDP	SAVINGS	GCF	NBB	INFLATION
1997	2,801,973	177,648	205,553	2,551	10.67
1998	2,708,430	200,065	192.984	2,298	7.86
1999	3,194,015	277,667	175,736	2,298	6.62
2000	4,512,127	385,191	268,895	2,444	6.94
2001	4,725,086	488,045	371,898	2,994	18.87
2002	6,912,381	592,094	438,115	3,018	12.89
2003	8,487,031	655,739	429,230	3,247	14.03
2004	11,411,067	797,517	456,970	3,492	15.01
2005	14,572,239	1,316,957	*804,400	3,492	17.85
2006	18,564,595	N/A	*1,546,525	3,004	8.24
2007	20,657,251	2,693,554	*1,917,000	3,897	5.38
2008	23,842,126	4,118,172	*2,283,050	3,897	11.60

Source: National Bureau of Statistics; * United Nations Statistics; CBN

TEST OF HYPOTHESIS

ANOVA

SUMMARY

Groups	*Count*	*Sum*	*Average*	*Variance*
Column 1	12	1.22E+08	10199027	5.65E+13
Column 2	12	11702649	975220.8	1.5E+12
Column 3	12	9090356	757529.7	5.41E+11
Column 4	12	36632	3052.667	328890.1
Column 5	12	135.96	11.33	20.14402

ANOVA

Source of Variation	*SS*	*Df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	9.25E+14	4	2.31E+14	19.72899	4.05E-10	2.539689
Within Groups	6.44E+14	55	1.17E+13			
Total	1.57E+15	59				

ANALYSIS OF RESULTS

From the above analysis the F-ratio of 19.7 is greater than the F-critical value of 2.53. The null hypothesis is rejected. We conclude that there is significant difference on the impact of liberalized financial system on savings, investment, growth and development in Nigeria.

DISCUSSION OF FINDINGS AND RECOMMENDATIONS

Based on the outcome of the study the following recommendations were of relevance:

1. Financial liberalization should be well coordinated with policies that encourages growth and stability of the economy and thus enhances credit worthiness of borrowers via prudent economic policies of great importance to achieve desired success.
2. Financial liberalization as it were stimulates investment better than it will stimulate national aggregate savings and the implication is that foreign borrowing will increase. In this instance, capital inflows require stringent regulations most importantly short term capital inflows to ensuring that activities of export industries are not in any way disrupted. However, it must be noted that capital inflow could not be objected to if such do not result to a foreign debt problem.
3. The government should focus more on the creation of conducive atmosphere that will make private investment interesting and attractive. Such conditions could include but not limited to stable macroeconomic environment, provision of adequate property rights such as adequate access to credit, imported inputs by investors, stable and reliable energy supply, good and decent road network, improved telecommunication services as well as the provision of adequate and consistent security.
4. Financial liberalization policies should promote private investment with significant benefits for long term level of growth and improved standard of living.
5. Enhanced growth and development becomes achievable where financial institutions channel available funds to the productive sectors of the economy like the industrial sector and not for consumption purposes that violates the economy. The effect of this is being felt via the global financial crisis due to the poor quality of credit granted courtesy of the sub-prime credit saga in the United States of America.

CONCLUSION

The main objective of this study is to determine the impact of financial system liberalization on savings, investment and growth in the Nigerian economy. The study focuses on the provision of evidences from the economy with regards to the performances of the Nigerian financial system on the liberalization exercise.

A major aspect of the reform has to do with the financial sector restructure as well as the liberalization of the regulations concerning financial institutions and markets. In this study an improvement in financial intermediation was considered as a necessary ingredient for stimulating investment, improving capacity building and fostering economic growth and development. The McKinnon and Shaw hypothesis on financial liberalization was adopted because of its relevance to developing economies like Nigeria. The basis of the hypothesis is that financial markets in developing economies are somehow fragmented and in that instance, the repressed nature of the financial systems in these economies tends to vitiate on the efficient allocation of resources which eventually leads to poor investment quality.

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AN INVESTIGATION ON HIGHER LEARNING STUDENTS SATISFACTION ON FOOD SERVICES AT UNIVERSITY CAFETERIA

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ABSTRACT

Food service becomes one of the service that need to be considered in order to satisfy students. The primary purpose of this paper is to investigate University student satisfaction with the universities' food service in which they study and to establish the benefits of that satisfaction to the institution especially the willingness and likelihood of recommending the institution to prospective students.. 200 questionnaires were distributed and only 83 students returned the questionnaires to the researcher. All proposed independent variables are significant and positively correlated to dependent variable. The significant factor that has the highest impact on a students' satisfaction on cafeteria service is food quality. Student's genders do not significantly differently on their satisfaction. However, there are significant different for hosteller and non hosteller students on ambiance of the cafeteria when determining their satisfaction on cafeteria service. The result of this study could help university cafeteria to improve their services.

KEYWORDS

Customer satisfaction, customer service, food services, quality and university cafeteria.

INTRODUCTION

Satisfaction means the wilful accomplishment which results in one's contentment, Rad & Yarmohammadian (2006). According to Zeithaml (1988) satisfaction mean the resultant outcome of an institution's administrative as well as educational system's coherent performance. The competitive in the higher education sector is increasing; the university student satisfaction is an important component in attracting and retaining high achievers who in turn increase the reputation and standing of the university, Wikiversity. According to Elliott & Shin (2002) "focusing on student satisfaction not only enables universities to re-engineer their organizations to adapt to student needs, but also allows them to develop a system for continuous monitoring of how effectively they meet or exceed student needs". They also argue that satisfaction is a worthy outcome variable to study because it has a number of student and course related benefits including increases in motivation, lower attrition rates and a greater number of referrals. There are many factor will affect the student satisfaction, according to Mai (2005), studied on the student satisfaction in higher education and its influential factors and it's was found that the overall impression of the school, overall impression of the quality of the education, teachers expertise and their interest in their subject, the quality and accessibility of IT facilities and the prospects of the degree furthering students careers were the most influential predictors of the students satisfaction. Another research which used a satisfaction model and Herzberg's two factor theory to examine the determinants of student satisfaction with education, it's found that faculty performance and classes were the key factors which determined the quality of college experience of students which in turn led to satisfaction [Deshields et al. (2005)].

Palacio et al (2002) conducted a study on Spanish university students; the results revealed that university image influenced the student satisfaction with the university. According to Aldemir & Gulcan (2004), some Turkish university students, the quality of instructors, education, textbooks and being female and informed before attending university considered to important factors of satisfaction. According to Navarro et al (2005) key elements to achieving Spanish student satisfaction and their subsequent loyalty are the teaching staff, teaching methods and course administration. Besides that, cafeteria also one of the factors will affect students' satisfaction. Satisfaction of school meals varies depending on the quality of meals, diversity of food, food hygiene and environment (Kim et al., 2003). According to Lee (2005), even if there is a cafeteria in a school, the space is small; waiting time for meals is prolonged making students unsatisfied. As a conclusion, the student satisfaction is important in the high competitive environment. According to Helgesen & Nesset (2007) student satisfaction has been related to recruitment and retention and academic success, which make university administrators pay high attention to the factors and help the university to attract more students effectively.

BACKGROUND OF STUDY

In the higher education milieu, foodservice became an essential component affecting the quality of campus life and providing strategic and competitive advantages (Gramling et al., 2005; Horwitz, 2005; June, 2006). Captive environment, repetitive consumption of limited and monotonous menu items, mediocre execution of food and service, and facility in general (Gramling et al., 2005; Klassen et al., 2005), distinguish campus foodservice from other commercial restaurants.

Customers in college foodservice operations want maximum choice with wide variety, flexibility and customization, and fresh-prepared food (Buzalka, 2003; Law, 2004). The food serve by the cafeteria must be fulfilling the students' demand just able to increase their satisfaction level. According to McDougall & Levesque, 2000, satisfaction is the customer's overall judgment of the service provider. They prefer more tasty and trendy food, so they eat a lot of fast food and instant snacks, which is affected by food commercials and convenience (The Food and Drug Association, 2007).

In University, the students are divided into two major groups which are hosteller and non hosteller. Hosteller will spend more time in cafeteria if compare to the non hosteller this is because they are staying in the hostels. All the hostellers are providing three meals daily at the cafeteria of University. In year 2011, there is 1701 students stay in the hostel. Among 1701 students, 1136 students are female student and 565 male students. There is more than 3500 students study in AIMST University but just about 50% of them stay in hostel, this amount can show that most of the students not prefer stay in the hostel. One of the reasons that make students do not want to stay in hostel is because of the cafeteria. So in order to increase the amount of hosteller, cafeteria should play an important role they should provide healthy and nutrient meal, reasonable price, and also should improve their service quality.

RESEARCH PROBLEM

According to Ashok Malhotra (2006), university's cafeteria designed for use by staff, students and visitors is generally the most visited component of a university. It is also a place where students and faculty can take their visitors for a brief coffee break or a lunch hour visit. A study from Kathryn K in 2010 found that students spend approximately 5 hours a week in university's cafeteria. Apparently, most of the students whether they are seniors or juniors are not are not fully satisfied with the existing cafeteria setup. It is important to analyze the impact of university's cafeteria features to ensure that students receive the greatest benefits from the cafeteria as part they spending on learning environments. Hence, it is important to analyze students are the main customers for universities as major players in the education industry. Students' satisfaction becomes the priority for universities in which the cafeteria provided for the students.

RESEARCH OBJECTIVES

The objective of this study is to investigate the students satisfaction on university cafeteria services overall. The objective of this study is to evaluate the followings;

- To examine the relationship between Food Quality, Food Variety, Ambiance, Cafeteria Staff, Price Fairness and Customer Satisfaction
- To investigate the differences in satisfaction levels with gender on University cafeteria food service.
- To investigate the differences in satisfaction levels between hosteller and non hosteller

SIGNIFICANCE OF STUDY

The study of student's satisfaction in university's cafeteria it can be a guideline for the university and to improve their quality. Cafeteria is a very important place for students, it can be one of the factor to consider when they choose their prefer university. This study designed is to help higher educational institution to understand the student's satisfaction in university's cafeteria and improve the quality of cafeteria, such as food price, food quality, staff, food variety and ambience in cafeteria. Besides that, in this study will test which is the most important factor to influence student's satisfaction in university cafeteria. The output of this study will be helpful for higher educational institution. It also can fulfill what students needs and wants, and to provide the best quality and services to the students.

LITERATURE REVIEW

STUDENTS' SATISFACTION ON UNIVERSITY'S CAFETERIA

The university cafeteria was scrutinized specifically for its impact on student retention and success.These include food service usage, relationships to other university services, and a review of pertinent studies for the impact of the cafeteria on retention.(Dr. Kevin Trutna, 2010)

Cafeterias and food service programs are noted in several academic studies as one of the strongest retention strategies for students at community universities.A college cafeteria is one important criterion that is identified and studied in student satisfaction and retention strategies. (Noel-Levitz, 2010)

The cafeteria and food services play a vital role in determining students' satisfaction and retention of students. It does not exist solely to feed employees or students; rather it is an integral part of a retention strategy for community university students. (Jerry Pattengale, 2009)

Variety, diversity and "comfort" in cafeteria food options at an university give students a sense of "home" while on campus and is important in determine students' satisfaction toward university's cafeteria. (Cohen, 2009)

CAFETERIA

A well-designed Central cafeteria, housed perhaps in the student center adds to functional efficiency of the university. For here, the lunch hour can be combined with a visit to the bank, post office and the book store along with a friendly exchange of words with colleagues, fellow students, visitors, staff and faculty who may be visiting the same building at the same time. Universities where such centers are not common would do well to plan for it on their campuses. (Keith Curry Lance, 2001)

The university cafeteria needs to be spacious not just because of the large number of its visitors but also because spacing between tables should ideally be much more than the spacing between tables in an ordinary restaurant. Students often use these tables to read or complete an assignment along with a snack, lunch or dinner. Music may never be permitted inside a university cafeteria for the same reason. Other sound proof sections of the student center can be designed to permit music.(Fe Angela Verzosa, 2008)

QUALITY OF FOOD

Food choices have grown so important to today's college student that some surveys are showing it among the top factors, not far behind academic programs and location, influencing where students decide to enroll (Lum 2005). According to Analdaleeb and Caskey (2007) while administrators realize that offering quality education is the paramount purpose of colleges, more administrators are beginning to recognize that students are seeking a total 'college experience' in which food service can play a vital role. Colleges have been seeking the opinions of their students regarding food services and whether such services meet students' needs.

College students live unique lifestyles. According to Andaleeb and Caskey (2007) one study indicates that college students typically eat their evening meals between 8 p.m. and 2 a.m. Another study indicates that many students, given their lifestyles, are on the lookout for dependable on-the-go food that offers value and satisfaction, such as for branded food services (Andaleeb and Caskey 2007). This study suggests that students are looking for speed, convenience, and a variety of food choices. Therefore where, what, and when they eat drives the satisfaction of college students and food administrators should pay close attention to these areas. The different lifestyles, needs, and cultures of college students in America indicate that the food service provided should reflect their needs.

Many other university food services are also trying to renovate or upgrade their dining facilities by following the students' expectations and demands. Because college students are part of the trend among many American adults to "dine out," George Mason turned to a brand-name, full-service restaurant to keep the dining dollars on campus rather than in the surrounding restaurants. Similarly, Notre Dame prefers to provide their own traditional food service and catering service for the most on-campus functions with a high quality of food and different menu options (Buzalka 2002). Purdue has a strategic plan to spend eighteen million dollars on a new dining court (Lee 2005). According to Johnson (2003) they are "stepping up to meet the students' demands." Johnson (2003) also stated that students want a less cafeteria-like atmosphere and desire a chef exhibition-style in front of the customers/students.

Satisfaction of school meals varies depending on the quality of meals, diversity of food, food hygiene and environment (Kim et al., 2003), but the eating place of school meals is different from cafeterias to classrooms and gender of meal eater is different. Service is the most important factor to improve the satisfaction on school meals. We need to examine the satisfaction on school meals by eating place and gender to improve the satisfaction of school meal. However, there was little research done on the comparison of satisfaction between eating places (cafeterias and classrooms) and gender (boy and girl) in school meals. We surveyed the satisfaction on school meals among middle school students in different eating places and gender; therefore, this study can provide basic data to improve the quality of school food service.

STAFF

The form of interaction that takes place in a university cafeteria is student seller interaction. The way the seller or the cafeteria staff interacts to students are very important as students are very sensitive in such matters. Service is the most important factor to improve the satisfaction on school meals (Jisook Jung, 2009).

Student satisfaction with regards to staff cafeteria in Malaysia has gone virtually untouched. This research attempts to clarify the attributes of quality staff cafeteria in influencing student satisfaction by explicitly examining how quality factors, including responsiveness of staff, food quality and restaurant ambience affect student satisfaction. Staff cafeteria where the preference of factors related to student satisfaction may be different. (Bartlett and Han, 2007)

Such dissatisfaction has been identified through opinion surveys conducted in organizations. These dissatisfactions are based on the facilities provided by the organization for the employees, such as the staff cafeteria. Further on, I will adopt their perspective and largely neglect alternative goals. Those persons would not be worse off, the contractor would have extra funds to do the work legacy staff is hard to motivate for, and the university would be better off via improved student performance because of better food. (Rad & Yarmohammadian, 2006)

PRICE OF FOOD

The quality-price ratio that maximizes the benefit of all students or the average student might not prove trivial as my definition of quality contains many dimensions. Therefore, some students might prefer a low price level while others want large diversity of food or extended opening hours or free refills of their plates. The best way to achieve this seems to have a supervisory board of the nonprofits' cafeteria comprising various students, which would make the cafeteria a consumer-dominated nonprofits'. (Prufer, J, 2000)

Supply of food and drinks of decent quality in decent quantity for affordable price has a direct effect on the wellbeing of the cafeteria's student. Mostly the students of the organisation. Assume that cafeterias produce a certain quality level and ask for a certain price level of their output. Quality-price ratio that maximises the benefit of all students – or the average student - might not prove trivial as my definition of quality contains many dimensions. Therefore, some students might prefer a low price level while others want large diversity of food or extended opening hours or free refills of their plates. (Herbst, P. and J. Prüfer, 2007)

Meal plans are included in the rent for all residents, no exceptions. Individual meals are available to non-residents for $7.50. A meal plan for the academic year is also available to non-residents for a semester rate. Students are permitted to eat at the cafeteria during the semester that the meal plan is purchased for. Intersession and summer are available at additional cost. (Adam Kuban, 2008)

VARIETY OF FOOD

Variety, diversity, and "comfort" in cafeteria food options at a university give students a sense of "home" while on campus. Variety and choice has been a concern for decades. Variety of food and beverages to cater to the many different needs of our customers, and we always serve it up with politeness and a smile. Student can enjoy our wide variety of food selections that are prepared fresh daily by our skilled cooks. Local area vendors provide our food fresh and new items are added to the menu monthly. (Cohen, 2009).

Variety of serving stations in the Café including soups of the day, a 36 item salad bar, hot entrees, a "made to order" deli and wrap station, appetizers, "hot-off-the-grill" sandwiches, beverages, frozen yogurt, and more than a dozen desserts. In cafeteria also have an extensive breakfast menu including a self-service hot food line, hot and cold cereal, assorted fruits and a wide variety of bagels and breads. (Cameron Ainsworth-Vincze, 2006). Daily, students can find seasonal fresh fruit, yogurt and a cereal bar. House made soups and fresh salads which change daily and compliment our great salad bar. Special monotony breakers include holiday favourites such as prime rib and turkey dinners and made to order specialty pastas.(Killian, K. S. 2009)

ENVIRONMENT

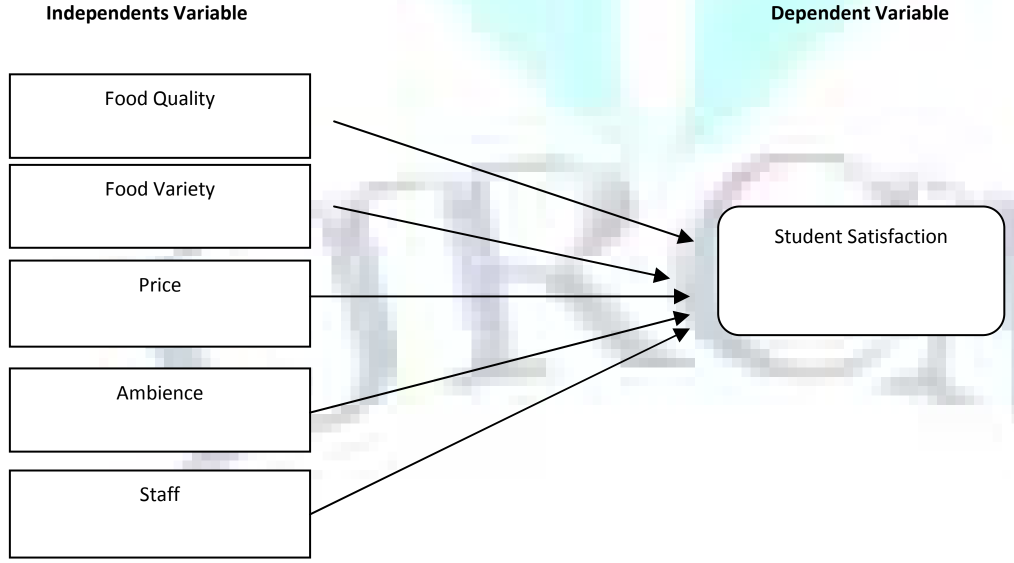
An ecological approach emphasizes the connections between student and environment. It also recognizes that behaviour and environment not only influence each other, but that they do so at multiple levels of interaction ranging from cafeteria. Cafeteria environmental factors refer to the upstream influences that impact behaviour on a food quality, and variety of food. Cafeteria environmental factors refer to influences within the individual's immediate settings, such as package, plate shape, lighting, and dining companions (Swinburn et al., 1999; Story et al., 2008).

An ecological approach to combating obesity and promoting wellness requires the design of cafeteria environments that support healthy food choices and eating behaviours By learning how student make food decisions, how aware they are of environmental influences on those decisions, and how resulting behaviours affect health, interaction designers can reshape these environments to support, rather than sabotage, people's efforts to live healthfully within the larger ecosystem of food environments. (Wansink, 2006).

The influence food choice and eating behaviour are calling the *personal food environments* to promote wellness and complement interventions at higher levels. Throughout the process, student use an ecological approach to investigate the relationships between food information, food quality, eating behaviors, eating environments, and food distribution environments. (Flegal et al, 2010)

THEORETICAL FRAMEWORK

Based on the literature review discussed, research framework designed as below:



RESEARCH DESIGN

SCOPE OF STUDY

The scope of study is limited to University students who currently studying as a targeted sample. The targeted sample is defined as such due to this group of people having the highest possibility of using the university cafeteria and food service and could provide a good feedback for the research.

POPULATION

In this study, the research was conducted in University. The population comprised of 2000 students who are studying at university.

SAMPLING
In this study, 200 questionnaires were distributed to Biotechnology and Engineering students who attending Introduction to Entrepreneurship course but only 83 respondents returned their questionnaires to the researcher.

DEMOGRAPHIC PROFILE
Section A contained 9 questions which addressed the respondents' demographic information. These questions identified the respondents' gender, course, ethnicity, year of study, living arrangement, how often do they use cafeteria services, what is the main reason you frequently eat at the cafeteria, what is the main reason you not frequently eat the cafeteria and have you ever made a complaint.

RESULT ANALYSIS
DESCRIPTIVE ANALYSIS
Referring to the table above, there are 83 of total respondents for this study. There are 68 (81.90%) students from biotechnology and 15 (18.10%) students from engineering. For the year of study, 55 (66.30%) of them are from year one and 28 (33.70%) of the students are from year three. For gender, there are 37 (44.60%) of male and 46 (55.40%) female completed this survey. For ethnicity, there are 42 (50.6%) Indians, 28 (33.70%) Chinese, 11 (13.30%) Malays, and 2 (2.40%) other races participated in this survey. There are 60 (72.30%) hostellers and 23 (27.70%) non hostellers for this research.
Among the total of 83 students, 63 (75.90%) students use cafeteria services daily, 11 (13.30%) of them use few times a month, 4 (4.80%) of them uses 3-4 times, 3 (3.60%) of them uses few times per semester, 2 (2.40%) of them uses only once or few times ever. There are 60 (72.30%) students goes to cafeteria with other reasons, 11 (13.30%) of them goes to cafeteria to socialize or meet friends, 8 (9.6%) students goes to cafeteria because the location is convenient, 3 (3.6%) of them are because of economical, and only 1 (1.2%) student is because of the food is good.
On the other hand, the main reason (55.40%) for students not frequently eat at cafeteria is the food is bad. 21 (25.30%) of them is because of others reason, expensive (8.40%) is the next reason that cause the student not to eat at cafeteria. 5 (6.0%) students feels that the cafeteria environment is bad. 2 (2.40%) students feels that the cafeteria location is not convenient and 2 (2.40%) students feels that the cafeteria are not friendly. 32 (38.60%) of the students have made a complained 51 (61.40%) of them have never made a complained.

VARIABLE ANALYSIS
The summary for the 26 items to each variable is shows have a means score of above 2.00, 3 items variables have a means score of above 3.00, 2 items variables have a means score of above 1.00. Thus, the findings indicate that the majority of the respondents disagree with the statement of items for each variable and dissatisfied with the cafeteria food, and consider those items important influencing their satisfaction on cafeteria food.

CORRELATION ANALYSIS
In this section, Pearson's correlation is used to explore the relationship between the independent variable and the dependent variable. Correlation coefficients are able to provide a numerical summary of the direction and the strength of the linear relationship between independent variables and dependent variables. The findings of correlations between the independent variables and dependent variable are summarized below:

FOOD QUALITY
There is a significant, weak positive correlation between food quality and student satisfaction on cafeteria service ($r = 0.554$, $p < 0.01$). The correlations indicate that the food quality, well cooked, taste, fresh food and consistent quality are important to determine their satisfaction on food.

FOOD VARIETY
There is a significant, weak and positive correlation between food variety and the student satisfaction on cafeteria service ($r = 0.507$, $p < 0.01$). Students satisfaction affected by the choices of food, whether the choices meet their special dietary, meet their cultural and ethnic preferences, and whether special meals and promotion offered frequently.

AMBIANCE
Similar to the food quality and food variety, there is a significant, weak and positive correlation between ambience and the student satisfaction on cafeteria service ($r = 0.552$, $p < 0.01$). This correlation show that, the available of the places to sit, opening hours, decoration of the cafeteria, comfortable seats, and cleanliness can determines the student satisfaction on cafeteria service.

CAFETERIA STAFF
The correlation between cafeteria staff and the student satisfaction on cafeteria service significant weak and positive correlation ($r = 0.483$, $p < 0.01$). Clean and neat of the staffs, friendliness, easy to talk with, smile of the staffs and faster serving line affects the students satisfaction on cafeteria service.

PRICE FAIRNESS
There is a significant, weak and positive correlation between price fairness and the student satisfaction on cafeteria service ($r = 0.320$, $p < 0.01$). This correlation show that, the acceptable prices, portion served, and acceptable price changes can determine the student satisfaction on cafeteria service.
In conclusion, the results revealed that all independent variables are positively correlated with the dependent variable at the high significant level $p < 0.01$, r appears to be a weak (<0.5) relationship between each independent variables and the dependent variables except food quality, food variety and ambiance.

MALE AND FEMALE STUDENTS DIFFER IN SATISFACTION ON CAFETERIA SERVICE.
An independent sample t-test was carried out to identify the differences between respondents' gender in their satisfaction on food service. The results of the independent sample t-test are shown in table 4.5. If the Levene's Test is significant (the value under "Sig." is less than 0.05), the two variances are significantly different. If it is not significant (Sig. is greater than 0.05), the two variances are not significantly different; that is, the two variances are approximately equal. According to table 4.5, all the variables significant approximately equal because the Sig. is greater than 0.05. This indicates that male and female respondents have the same satisfaction level on cafeteria service. **So, the research fails to reject null hypothesis.** Furthermore, the results reveal similar outcomes to the five variables: food quality, food variety, ambience, cafeteria staff, and price fairness. Males and females did not differ significantly in their satisfaction on cafeteria service.

HOSTELLER AND NON HOSTELLER DIFFER IN SATISFACTION ON CAFETERIA SERVICE.
According to table 4.6, all the variables significant approximately equal because the Sig. is greater than 0.05 except ambiance. This indicates that hostellers are more dissatisfied compare to non hostellers on the ambience of the cafeteria. The results reveal similar outcomes for four variables: food quality, food variety, cafeteria staff, and price fairness. Both of the hosteller and non hosteller students tend to have the same satisfaction on these factors.

MULTIPLE REGRESSION ANALYSIS
From the research, multiple regressions were used to examine the effect of two or more independent variables on a single dependent variable (student satisfaction on cafeteria service). R-Square, also known as the Coefficient of determination is a commonly used statistic to evaluate model fit. R is the multiple correlations between independent variable and dependent variable. Constant refers to the intercept, while the row containing the name of independent variable (a) refers to the slope.

TABLE 4.5.1 REGRESSION BETWEEN FIVE INDEPENDENTS VARIABLES ON A DEPENDENT VARIABLE

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.14	0.32		-0.44	0.66
Food_Quality	0.27	0.13	0.26	2.08	0.04
Food_Veriety	0.13	0.11	0.14	1.13	0.26
Ambiance	0.30	0.11	0.29	2.76	0.01
Cafeteria_Staff	0.06	0.11	0.06	0.57	0.57
Price_Fairness	0.15	0.08	0.17	1.91	0.06
Dependent Variable: Student_Satisfaction					

R^2 = 0.458

F= 13.007

Based on the table, the ambiance is the strongest independent variable correlations to dependent variable (student satisfaction on university cafeteria), which are having 0.232 compare to others independent variables such as food quality, 0.17 or food variety, 0.14. Base of the result, the ambiance will influence the student satisfaction on university cafeteria, however the cafeteria staff are the lower influencing the student satisfaction on university cafeteria. This are also same with the slope, the cafeteria staff are the lower, with is 0.063 and the ambiance having the higher slope (0.29). Therefore, ambiance consider as the most important factor influence student satisfaction on university cafeteria.

CONCLUSION

The findings from the analyses shows most of the students are dissatisfied on the cafeteria service. Besides, all proposed independent variables are significant and positively correlated to dependent variable. The significant factor that has the highest impact on a students' satisfaction on cafeteria service is food quality. Student's genders do not significantly differently on their satisfaction. However, there are significant different for hosteller and non hosteller students on ambiance of the cafeteria when determining their satisfaction on cafeteria service.

SCOPE FOR FUTURE RESEARCH

The size of the sample is small. Only 83 respondents were responded in this research. The research would have been more reliable if a greater size of sample will be used. The researcher also believed other factors also might influence student's satisfaction on university cafeteria services. The result shows, only 5 factors tested which was selected from previous studies.

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IDENTIFYING AND PRIORITIZING THE MAIN BARRIERS TO KNOWLEDGE MANAGEMENT

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ABSTRACT

Knowledge has been recognized as an important source of competitive advantage and value creation, as an indispensable ingredient for the development of dynamic core competencies and, more generally, as a determinant factor for firms with global ambitions. Thus, successful knowledge management can be the chief determinant for the survival of an enterprise in a knowledge-based economy. Nevertheless, hurdles to efficient and effective knowledge management are many. In this paper we first, identify the barriers of knowledge management according to literature review and experts' points of view. In fact, for extracting the barriers, we have used qualitative method called focused group. In second step, we used ANP (quantitative method) to propose a model to prioritize the most critical barriers which have effect on knowledge management. The output of research indicates that 12 criteria are indentified as barriers. The most important barrier is Managers constraints for motivating employees. Finally we have offered some recommendations for overcoming the identified barriers.

KEYWORDS

Analytical Network Process (ANP), Knowledge Management, barriers, focused group.

INTRODUCTION

It is widely recognized that knowledge is an essential strategic resource for a firm to retain sustainable competitive advantage. Knowledge is the main factor for production in teams, organizations and societies (Chua and Heng, 2009; Massa and Testa, 2009). As knowledge is created and disseminated throughout the firm, it has the potential to contribute to the firm's value by enhancing its capability to respond to new and unusual situations. There is growing evidence that firms are increasingly investing in knowledge management (KM) initiatives and establishing KM systems in order to acquire and better exploit this resource (Choi et. Al., 2008). Knowledge management has been proposed as a methodology that can manage the knowledge of the organization. Knowledge Management is the process of sharing, distributing, organizing, creating, storing and understanding of knowledge about organization policies, processes and products (Ahmad and Khan, 2008).The knowledge processes are briefly described here (Massa and Testa, 2009):

- Knowledge creation/acquisition is the process of generating knowledge internally and/or acquiring it from external sources. It is worth noting that the effective acquisition of knowledge from external sources depends on the ability of the firm to recognize the value of new external information, assimilate it and apply it to commercial ends. Cohen and Levinthal (1990) label this capability a firm's absorptive capacity, which is largely a function of the firm's level of prior related knowledge. According to this perspective, what is just information for some constitutes valuable knowledge for others and vice versa.
- Knowledge storage and retrieval refers to the processes of knowledge structuring and storing that makes it more formalized and accessible.
- Knowledge transfer and sharing refers to the processes of transferring, disseminating and distributing knowledge in order to make it available to those who need it.
- Knowledge application can be defined as the process of incorporating knowledge into an organization's products, services and practices to derive value from it.

The growing importance of knowledge as a critical resource has encouraged managers to pay greater attention to the firms' KM strategies. Appropriate KM strategies are important to ensure that the alignment of organizational process, culture, and the KM-related information technology deployment produce effecttive knowledge creation, sharing, and utilization (Choi et. al., 2008). Cumulative evidence from past research in organization and management suggests that knowledge management is critical element of success of organizations (Fugate, 2009). Successful knowledge management can be the chief determinant for the survival of an enterprise in a knowledge-based economy. Several factors that contribute to the importance of managing knowledge are referenced below (Ahmad and Khan, 2008):

- *Competitive Advantage* - Knowledge can be an organization's most competitive advantage. Wealth results when an organization uses its knowledge to create customer value by addressing business problems. A firm's competitive advantage depends more than anything on its knowledge, or to be slightly more specific, on what it knows, how it uses what it knows and how fast it can know something new.
- *Technology* - Because of the tremendous advances in technology, enormous amounts of information can be disseminated to people regardless of their geographic location or time zone. The speed of transmission and frequency in which this information is received requires an adaptable, skilled and

educated workforce. From a knowledge management perspective, the complexities associated with these technological changes will cause us to think differently about the manner in which people learn.

- *Organizational Change - Due to organizational changes, restructuring, mergers and* acquisitions, companies have lost some of their valued history and cultural norms. An organization's ability to create, acquire, process, maintain and retain old and new knowledge in the face of complexity, uncertainty and rapid change is critical.
- *Enhanced Decision-Making* - Learning from and applying past experiences can accelerate the completion of future work and enhance the decision-making process.
- *Workforce Demographics* - An aging workforce, coupled with retiring baby boomers and the loss of intellectual capital or institutional memory are creating a new sense of urgency for organizations. Although predicting employee separations is at times challenging, knowledge transfer is vital to sustaining critical business functions. While many employees may continue employment beyond retirement eligibility, these employees will inevitably leave the workforce.

Some of the benefits of an effective knowledge management program are as following (Hislop, 2005):

- Cultivating innovation by encouraging the free flow of ideas
- Improving customer service by streamlining response time
- Improving employee retention rates by recognizing the value of employees' knowledge and rewarding them for it
- Streamlining operations and reduce costs by eliminating redundant or unnecessary processes
- enhancing customer responsiveness by creating and delivering innovative products or services
- managing or enhancing relationships with existing and new customers, partners and suppliers
- Administering or improving more efficient and effective work practices and processes

KNOWLEDGE MANAGEMENT BARRIERS

Most knowledge management initiatives, however, fall short of their goals. Some surveys alert us to a grim reality. For example, Ruggles (1998) studied 431 US and European companies with knowledge management initiatives under way, and found that only 13 percent of the respondents felt they were successful in transferring knowledge from one part of the firm to the other, whereas only 46 percent ranked their firm high on the ability to generate new knowledge. A primary reason for this is the view that IT is a silver bullet. Although it can enable people to transcend distance and time barriers through the use of tools such as e-mail and group support systems, it cannot motivate people to share knowledge. The biggest hurdle to knowledge management is not implementing a cutting-edge IT solution, but getting people to talk and share their know-how. Knowledge originates in the minds of individuals, so we must realize that unless organization members are motivated to share, no IT solution can deliver the desired goals (Desouza, 2003).

Desouza believes that some barriers prevent effective and efficient knowledge management. These barriers are (Desouza, 2003):

- Lack of expert managers for motivating employees. Some managers do not have enough expertise to find appropriate incentives for employees to share knowledge and insights with their peers, as well as providing rewards for those who do so
- Requisite knowledge too hard to capture and categorize. Most knowledge managers measure the success of knowledge initiatives by the amount members contribute to databases and by how much of the knowledge the firm is using. One reason for such superficial metrics is ease of use; it is easy to see access or control statistics on a particular document in a database—it is much more difficult to find out whether those who accessed it actually used those insights. Most specialized domains, such as software engineering, strategy consulting, and finance, contain knowledge that is highly tacit in nature, much of which cannot be articulated well or be put in an explicit format. Moreover, when one wants to contribute insights into the knowledge management system, the cost of doing so tends to outweigh the perceived benefits.

Much of the knowledge in software engineering is highly contextual in nature, which calls for focused applicability. How a logical error was fixed in one scenario may have no bearing on another. Hence, to truly contribute insights one has to capture not only the new knowledge but also contextual factors in an explicit format, which can be a costly endeavor.

- Lack of adequate communication and action. Knowledge management does call for changes to employees' daily routine operations, and until they see fullfledged support for the initiative they are unlikely to follow suit. The use of a knowledge management system calls for training of personnel and involves a learning curve. Most employees view the use of these systems as a luxury to their job, rather than a requirement. Thus, they seldom take training seriously and resist using what they have learned. Clear communication and direction from the executives is crucial here, because employees—as the knowledge providers and users—are key ingredients in the knowledge management revolution. Although the executive team normally has clear objectives and a clear purpose for the new systems, these are almost never conveyed effectively to the rest of the firm. Employees are left to come up with their own notions.

Two common themes that result from lack of communication are confusion and negative perspectives. Employees tend to have their own perceptions of knowledge management system usage, and as they spent time discussing it with their peers, they became more confused. When no clear statement of purpose was made, the negative perceptions of the systems overwhelmed the positive.

- Forcing employees. There is a tendency in firms for people to over-manage, or micro-manage. Knowledge management cannot be fostered under these settings because people feel pressured and are less motivated to engage in dialogue. Moreover, changing to a knowledge management culture does not happen overnight. Senior executives need to be aware of this and avoid imposing strict guidelines on what knowledge can and cannot be shared. They must be more concerned with just getting people talking, which has a direct bearing on moving to a knowledge orientation. It is important to let employees experiment with and exploit new technology at their own pace. If it has benefits intended to improve their performance, they will get around to using it. Employees prefer that their peers tell them to use something rather than a senior executive. Hence, it is pivotal to let nature take its course. Executives need to provide clear communication and set the examples, but they cannot make employees talk, nor can they make them use something at the desired pace.

Rosen, Furst and Blackburn identified six barriers to knowledge Management (Rosen et al., 2007):

- Lack of trust among team members
- Time constraints and competing deadline pressures
- Technology constraints on knowledge sharing
- Team leader constraints on knowledge sharing
- Failure to develop a transactive memory system
- Cultural constraints on information sharing

Lin, Tan and Chang classified knowledge management barriers into five categories (lin et al., 2008):

- *Knowledge characteristics*: Causal ambiguity and non-validated knowledge hinder knowledge flow. The first occurs when the reasons for success or failure in replicating a capability cannot be determined. Tacit knowledge involves human skills and is difficult to measure. In addition, knowledge without a record of past usefulness is likely to be questioned by the recipient.
- *Knowledge source barriers:* Efficient sharing depends on people being willing to contribute material to the organization. However, they often have invested resources in building a competence feel it is theirs unless incentives are given.
- *Knowledge receiver barriers:* A precondition for knowledge transfer is that the receiver has sufficient related knowledge to assess its value, and does not resist using material from outsiders.

- *Contextual barriers:* During problem-solving, people develop and modify their understanding, and the context emerges and transforms. Context influences people's attitudes and choices, thus, context influences what problems are considered to be solvable or are solved. knowledge inertia
- *Inadequate/lack of mechanisms:* Knowledge flow mechanisms are either intangible, such as mentoring, formal meetings and informal occasions or tangible, such as journals and IT.

Liao (2002) using the principles of inertia in physics to knowledge management, states that knowledge inertia is a barrier to knowledge management and may inhibit an organization's capability to learn and solve problems. O'keefe and Wright contend that Knowledge inertia is defined as the degree of the level of commitment to the organization's current strategy, will grow over time as current ways of operating become deeply emdded in an organization, regardless of, and generally without reference to, developments in the environment (O'keefe and Wright, 2009). Barnett and Pontikes (2008) believe that inertia describes the tendency to remain with the status quo and the resistance to strategic renewal outside the frame of current strategy.

Knowledge inertia may pose significant barriers to Knowledge management; for example reduce the options considered feasible and inhibit the development of more appropriate strategies (Baker and Collins, 2009, p: 1944). Knowledge inertia may also be a significant barrier to change, innovation and adaptation in turbulent economic environments (Collinson and Wilson, 2006, p: 1361). Routine problem-solving approaches and similar reasoning will be adopted to save time and effort and also avoid risks. Everything stemming from past experience and knowledge without revision and updating would imply predictable management behavior and problem- solving strategy of an enterprise (Liao, 2002). That is to say, inertia would result in lack of innovation and expected behavior, which may jeopardize the survival or undermine the advantage of an enterprise in a highly competitive environment (Liao et al., 2007; Liao et al., 2008).

RESEARCH METHODOLOGY

Research in scientific method has been recognized as the collection of rules and principles which show the way of searching for finding realities about a subject. This research includes two separate stages. The first stage is a qualitative part of research being in relation with collecting and arranging concerned barriers. In order to gather aforesaid factors, different sources are assessed. These sources are:

1. Research background.
2. Forming focused groups and exploring criteria from interviewing with expert individuals.

In the second stage being performed in quantitative part, ANP technique has been used for structuring and arranging factors.

The statistical population was of professors of Management College of Tehran University included seven fields of study. Whereas statistical sample in research system in focused group is conventional, 8 persons were considered. As we know, focused groups are generally included from 6 to 12 persons.

INSTRUMENTS OF GATHERING DATA

Gathering data is performed in three separate stages. In the first stage, different factors of research literature and interview with experts were collected. It should be mentioned that method of interviewing with focused groups is utilized in order gather information from experts. In the next state, instrument of questionnaire is used to screen principle factors of experts' perspective. In this study, two instruments including questionnaire and interview were used for collecting information. In this stage, numbers of factors from 34 were reduced to 8 principle factors through utilization of questionnaire instrument.

Concerned questionnaire was designed on the basis of a quintuple spectrum of Likert including unimportant, low important, pretty important and very important. Instrument of interview is used in the method of focal group. The performed interview is collectively accomplished. The reason of performing team interviews is to create brain storm among focused group members and reduction of time in research interviews. This method emphasizes that thoughts are mentioned uncontrolled, unorganized and imaginative. So, every thought being come in brain about presented subject, is welcomed. By performing team interviews, some of reproofs like thinking group and collectivism were propounded. The principle origin of these conceptual errors can be known in the topic of power in group. But whereas numbers of groups were in scientific parallel place, effectiveness of these factors has been reached to lowest rate.

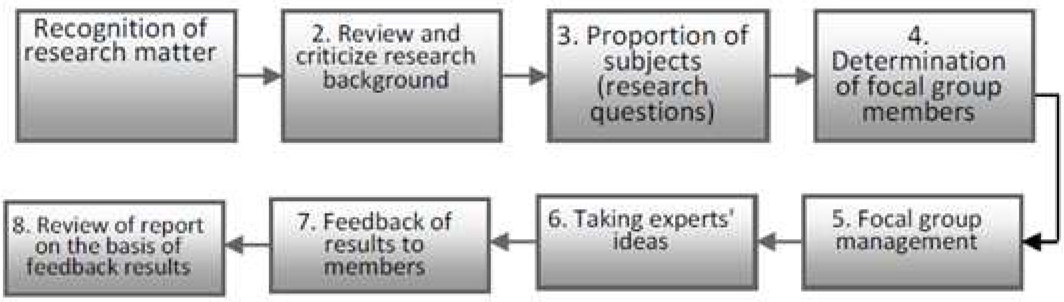
FOCUSED GROUPS

In this research, focused groups' method was utilized in order to analyze the research matter. Focused group is a qualitative methodology by which researcher can show common ideas of individuals in terms of the phenomenon. Using focused groups' method with regard to pathology of infected dilemmas in organization and university centers is previously known. Among, this method was used in Canzas University of USA in order to have scientific communication between researchers in the preliminary stages. Focused group includes experienced individuals in relation with research subject being selected by the researcher. They represent their ideas and discuss about research matter. Focused group has advantages like:

- Synergy :collective process leads to collect more information beside deep individual interviews
- Facilitation (snowball point): equanimity of respondents will lead to represent thoughts and ideas.
- Stimulation: individuals whom avoid from representing ideas are stimulated to cooperation.
- Extemporization: whereas a specific individual is not asked, responses are answered on the basis of conceptual imaginations.
- Structure: modification of subject of discussion can be simply leaded.
- Speed: it is faster than individual interview (one to one)
- Security: it can be supervised by research team members.

Process of Focused group utilization is performed as the follow: after selection of group members, questioner enacting as a mediator and manager of the meeting, turns to ask the questions being previously determined. Registration of Answering question and interviewing is continued for 2 hours. After accomplishing record and analyzing discussion, it is better to represent the collected and analyzed text to the audience, so that that if there would be ambiguous about mentioned problems, researchers can correct them. Figure 1 shows the Process of focused group technique.

FIGURE1: PROCESS OF FOCUSED GROUP



ANALYTICAL NETWORK PROCESS (ANP)

Analytic hierarchy process (AHP) is one of the widely used approaches to handle such a Multi Criteria decision-making problem. However, a significant limitation of AHP is the assumption of independency among various criteria of decision-making. Analytic network process (ANP), on the other hand, captures interdependencies among the decision attributes and allows a more systematic analysis. It also allows inclusion of all the relevant criteria (tangible or intangible, objective or subjective, etc.) that have some bearing in arriving at the best decision (Saaty, 1980). Contrary to AHP, ANP provides a more generalized model in decision-making without making assumptions about the independency of the higher-level elements from lower-level elements and also of the elements within a level. Despite all these merits, the applications of ANP are not very common in a decision-making problem. However, in recent years, there has been an increase in the use of ANP in multi-criteria decision-making problems (Jharkhariaa and Shankar,2007).The steps to run the ANP are coming as below (Chung et al, 2006):

Step 1: Model construction and problem structuring: the problem should be stated clearly and decomposed into rational system like network. The structure can be obtained by the opinion of decision makers through brainstorming or other appropriate methods.

Step 2: Pairwise comparisons matrices and priority vectors: In ANP, like AHP, decision elements at each component are compared Pairwised with respect to their importance towards their control criterion, and the components themselves are also compared pairwise with respect to their contribution to the goal. Decision makers are asked to respond to a series of pairewise comparisons where two elements or two components at a time will be compared in terms of how they contribute to their particular upper level criterion (Meade and Sarkis, 1999). The relative values are determined with Saaty's 1-9 scale (Table 1), where a score of 1 represents equal importance between the two elements and a score 9 indicates the extreme importance of one element (row component in the matrix) compared to the other one (column component in the matrix) (Meade and Sarkis, 1999).

Table 1: Saaty's 1-9 scales for AHP

Definition	Intensity of importance
Equal importance	1
Moderate importance	3
Strong importance	5
Very strong importance	7
Absolute importance	9
Intermediate importance	2, 4, 6, 8

Like AHP, pairwise comparison in ANP is made in the framework of a matrix, and a local priority vector can be derived as an estimate of relative importance associated with the elements (or components) being compared by solving the equation 1:

EQUATION - 1

$$W_n = \begin{bmatrix} 0 & 0 & 0 \\ w_{21} & w_{22} & 0 \\ 0 & w_{32} & I \end{bmatrix} \quad A \times w = \lambda_{\max} \times w$$

Where A is the matrix of pairwise comparison, w is the eigenvector, $\lambda_{\max}$ is the largest Eigenvalue of A.

Step 3: Super matrix formation: the super matrix concept is similar to the Markov chain process (Saaty, 1996). To obtain global priorities in a system with interdependent influences, the local priority vectors are entered in the appropriate columns of a matrix. As result, a super matrix is actually a partitioned matrix, where each matrix segment represents a relationship between two nodes (components or clusters) in a system (Meade and Sarkis, 1999). Let the components of a decision systems be C_k, k=1, 2… n, and each component $\boldsymbol{k}$ has m_k elements, denoted by: $e_{k1}, e_{k2} \ldots e_{kmk}$.

The local priority vectors obtained in step 2 are grouped and located in appropriate positions in a super matrix based on the flow of influence from a component to another component, or from a component to itself as in the loop. A standard form of a super matrix is as Figure 2:

FIGURE2: SUPER MATRIX

$$\begin{array}{cc} & \begin{array}{cccc} C_1 & C_2 & \cdots & C_N \\ e_{11}e_{12}\cdots e_{1n_1} & e_{21}e_{22}\cdots e_{2n_2} & & e_{N1}e_{N2}\cdots e_{Nn_N} \end{array} \\ W = \begin{array}{c} C_1 \begin{array}{c} e_{11} \\ e_{12} \\ \vdots \\ e_{1n_1} \end{array} \\ C_2 \begin{array}{c} e_{21} \\ e_{22} \\ \vdots \\ e_{2n_2} \end{array} \\ \vdots \quad \vdots \\ C_N \begin{array}{c} e_{N1} \\ e_{N2} \\ \vdots \\ e_{Nn_N} \end{array} \end{array} & \begin{bmatrix} W_{11} & W_{12} & \cdots & W_{1N} \\ W_{21} & W_{22} & \cdots & W_{2N} \\ \vdots & \vdots & \vdots\vdots\vdots & \vdots \\ W_{N1} & W_{N2} & \cdots & W_{NN} \end{bmatrix} \end{array}$$

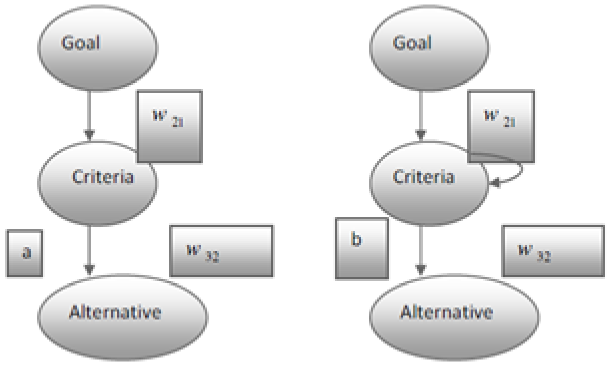
As an example, the super matrix representation of a hierarchy with three levels is as shown in equation 2 (Saaty, 1996).

EQUATION - 2

$$W_h = \begin{bmatrix} 0 & 0 & 0 \\ w_{21} & 0 & 0 \\ 0 & w_{32} & I \end{bmatrix}$$

Where w_{21} is a vector that represents the impact of the goal on the criteria, w_{32} is a matrix that represents the impact of criteria on each of the alternatives, I is the identity matrix, and entries of zeros corresponding to those elements that have no influence.

FIGURE3. A: AHP, B: NETWORK (CHUNG ET. AL., 2006; MOMBOH AND ZHU, 2003)



For the above example, if the criteria are interrelated among themselves, the hierarchy is replaced by a network as shown in Figure 3. The entry of W_n given by w_{22} would indicate the interdependency, and the super matrix would be as equation 3 (Saaty, 1996).

EQUATION - 3

$$W_n = \begin{bmatrix} 0 & 0 & 0 \\ w_{21} & w_{22} & 0 \\ 0 & w_{32} & I \end{bmatrix}$$

THE RESEARCH MODEL

Concerning research literature and interview with focused groups and questionnaires of pairewised comparisons (Figure 4), barriers of knowledge management can be arranged as follow:

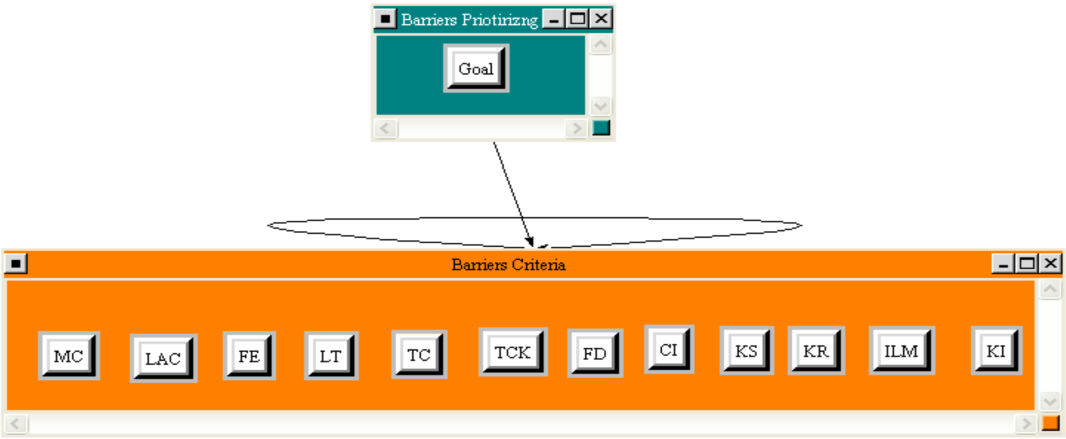
- Managers constraints for motivating employees (MC)
- Lack of adequate communication (LAC)
- Forcing employees (FE)
- Lack of trust among employees for knowledge sharing (LT)
- Time constraints and competing deadline pressures (TC)
- Technology constraints on knowledge sharing (TCK)
- Failure to develop a transactive memory system (FD)
- Cultural constraints on information sharing (CI)
- Knowledge source barriers (KS)
- Knowledge receiver barriers (KR)
- Inadequate/lack of mechanisms (ILM)
- Knowledge inertia (KI)

The model of research is structuralized as figure 5.

FIGURE 4 - PAIRWISED COMPARISON MATRIX

Inconsistency	FD	FE	ILM	KI	KR
CI	6.0	4.0	5.0	7.0	3.0
FD		7.0	5.0	9.0	4.0
FE			4.0	6.0	3.0
ILM				9.0	4.0
KI					8.0

FIGURE 5 - MODEL OF RESEARCH



RUNNING THE MODEL AND CONCLUSION

For solving the problem we used Super decisions software. The results of running the model are shown in Figure 6.

FIGURE 6- PRIORITIZING THE BARRIERS

Here are the priorities.

Icon	Name	Normalized by Cluster	Limiting
No Icon	Goal	0.00000	0.000000
No Icon	MC	0.32204	0.322038
No Icon	LAC	0.00000	0.000000
No Icon	FE	0.00000	0.000000
No Icon	LT	0.00000	0.000000
No Icon	TC	0.15695	0.156945
No Icon	TCK	0.00303	0.003026
No Icon	FD	0.00000	0.000000
No Icon	CI	0.15695	0.156945
No Icon	KS	0.15695	0.156945
No Icon	KR	0.03399	0.033994
No Icon	ILM	0.15695	0.156945
No Icon	KI	0.01316	0.013160

As we see in Figure 6 the priority of the barriers is as follows:

1. Managers constraints for motivating employees (MC)
2. Time constraints and competing deadline pressures (TC)
3. Cultural constraints on information sharing (CI)
4. Knowledge source barriers (KS)
5. Inadequate/lack of mechanisms (ILM)
6. Knowledge receiver barriers (KR)
7. Technology constraints on knowledge sharing (TCK)
8. Lack of adequate communication (LAC)
9. Forcing employees (FE)
10. Lack of trust among employees for knowledge sharing (LT)
11. Failure to develop a transactive memory system (FD)
12. Knowledge inertia (KI)

According to Figure 6 the most important barrier to knowledge management is the first barrier (Managers constraints). To overcome this barrier considering these points are helpful:

- Managers should be sure that everyone has a voice on an issue before moving on.
- Managers should frequently call for updates and provide updates of other members' work.
- Managers should be sure that information is shared in a timely manner and encourages conversation.
- During quarterly visits and monthly conference calls, Managers should give everyone the opportunity to speak about his or her own experiences and ideas.
- Managers can talk offline with subgroups of team members to discuss an issue to insure that all team members fully understand issues and ideas.

The next most important priorities are Time constraints and competing deadline pressures, Cultural constraints on information sharing, Knowledge source barriers and Inadequate/lack of mechanisms. For overcoming these barriers the following recommendations should be considered:

- Setting clear objectives with documented due dates on which everyone on the team can agree. If a team member has an idea or can help with a specific objective**,** encourage the member to make such an offer to the full team**.**
- Working together face-to-face at least once a month helps to develop trust.
- Scheduling regular (e.g., weekly, bi-weekly, or monthly) conference calls to ensure team members share information on a regular basis**.**
- Creating a web site where members can post and retrieve information**.**
- Provide training on new technologies to ensure that team members are comfortable with and motivated to use those technologies when needed**.**
- Monitor e-mail discussions to prevent over-use, particularly when issues become complex and could benefit from the use of richer, more sophisticated technologies
- Establishing agreed-upon rules for participating in the team, including the importance of sharing information and knowledge. Team leaders should model these behaviors.
- Creating a spreadsheet or other document with each team member's knowledge profile and areas of expertise.
- helping team members gain knowledge of expertise, ask members for suggestions or support before searching external sources.
- Sending special requests for information to other team members soliciting advice before pursuing external sources for information.
- Educating team members at the outset regarding possible cultural differences in communication and conflict styles among members.

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PERFORMANCE EVALUATION OF PRIVATE AND PUBLIC SPONSORED MUTUAL FUNDS IN INDIA

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ABSTRACT

In the current complex financial scenario, mutual funds are an ideal investment vehicle to the small investors. Mutual funds which have been operating for greater than five years and performing during the period of study (i.e. 2003 – 2007) are selected for the present research. The sample for the study consists of 340 mutual funds belonging to four categories - Money market category funds, Debt Category Funds, Equity category funds and Balanced category funds. These are further classified into private and public mutual funds. The performance of selected funds is evaluated using average rate of return of fund, standard deviation, Risk/Return, Sharpe Ratio, Treynor ratio and Jensen ratio. Benchmark comparison is also made as it indicates to what extent the fund managers were able to produce better performance of managed portfolio compared to the market or index portfolios.

KEYWORDS

Benchmark comparison, Jensen ratio, Sharpe ratio, Treynor ratio.

INTRODUCTION

In the current complex financial scenario, mutual funds are an ideal investment vehicle to the small investors. The mutual funds industry in India has gained substantial momentum. Of many reasons that can be attributed to the growth of mutual fund industry, the fundamental one is the increasing complexity of modern investment. It is difficult for a man of small means and limited knowledge to make sound and profitable investment decisions. Mutual funds provide a viable alternative for the small investors. Mutual funds industry blossomed as they are able to cater to the needs of small investors who cannot actively take part in the share market for lack of information and professional expertise. With many players in the industry, Mutual fund investors have come to receive an unparalleled array of products and wide range of services.

The mutual funds industry scaled new heights in terms of assets under management, number of players as well as in terms of product choices and investor services. The significant impetus of mutual funds in India has drawn the attention of Indian researchers, individuals and institutional investors during the last decade. It is an undisputed fact that the industry is growing and simultaneously the competition is also intensifying. In this context it is very relevant to focus on how the Indian mutual industry would emerge in the near future to determine what kind of products would be able to gain investors' confidence. In this competitive environment with many players in the industry, one cannot afford to perform poorly as it cannot survive in the market place. The present research study focuses on performance evaluation of private and public mutual funds

LITERATURE REVIEW

Literature review not only highlights the historically significant studies, but also suggests the trends in theoretical progress as well as in methodology and techniques used in these studies.

Barua and Verma (1991) provided empirical evidence of equity mutual fund performance in India. They studied the investment performance of India's first 7-year close-end equity mutual fund, Master share. They found that the fund performed satisfactory for large investor in terms of rate of return. **Ippolito (1992)** expressed that fund/scheme selection by investors is based on past performance of the funds and money flows into winning funds more rapidly than they flow out of losing funds. **Sarkar and Majumdar (1995)** evaluated financial performance of five close-ended growth funds for the period February 1991 to August 1993, concluded that the performance was below average in terms of alpha values (all negative and statistically not significant) and funds possessed high risk. **Jaydev (1996)** evaluated performance of two schemes during the period, June 1992 to March 1994 in terms of returns / benchmark comparison, diversification, selectivity and market timing skills. He concluded that the schemes failed to perform better than the market portfolio (ET's ordinary share price index). **Gupta and Sehgal (1997)** evaluated mutual fund performance over a four year period, 1992-96. The sample consisted of 80 mutual fund schemes. They concluded that mutual fund industry performed well during the period of study. The performance was evaluated in terms of benchmark comparison, performance from one period to the next and their risk-return characteristics. **Mishra (2001)** evaluated performance over a period, April 1992 to December 1996. The sample size was 24 public sector sponsored mutual funds. The performance was evaluated in terms of rate of return, Treynor, Sharpe and Jensen measures of performance. The study concluded dismal performance of PSU mutual funds in India, in general, during the period, 1992-96. **Mayank V. Bhatt and Chetan C. Patel (2008)** studied the performance comparison of different mutual funds schemes in India through Sharpe index model and concluded that mutual funds are the most popular and safe parameter for an investor to invest. **Kavita Chavali and Shefali Jain (2009)** evaluated the performance of equity linked savings schemes and concluded that the fund chosen by the investor should match the risk appetite of the investor. **Narayan Rao and M. Ravindran** evaluated performance of Indian mutual funds in a bear market through relative performance index, risk-return analysis, Treynor ratio, Sharpe ratio, Jensen measure, and Fama's measure. The results of performance measures suggested that most of mutual fund schemes in the sample of 58 were able to satisfy investor's expectations by giving excess returns over expected returns based on both premium for systematic risk and total risk.

Mutual Fund as an investment vehicle is capturing the attention of various segments of the society, like academicians, industrialists, financial intermediaries, investors and regulators.

OBJECTIVES OF THE STUDY

The following objectives are formulated for the present study:

1. To classify the mutual fund schemes into different categories and analyze the performance of different private and public mutual funds.

2. To evaluate performance of different mutual funds schemes on the basis of risk- return parameters and benchmark indices.
3. To appraise performance of private and public mutual funds using risk adjusted measures as suggested by Sharpe, Treynor, and Jensen.
4. To find out if there is a significant difference in the performance of private and public mutual funds.

HYPOTHESES

1. There is no significant difference between the returns of different mutual fund schemes of respective mutual fund category
2. There is no significant difference between the returns of private mutual funds and public mutual funds.

METHODOLOGY

FUNDS SELECTED FOR THE STUDY

Mutual funds which have been operating for greater than five years and performing during the period of study (i.e. 2003 – 2007) were selected for the present research. There were 340 such mutual funds belonging to four categories - Money market category funds, Debt Category Funds, Equity category funds and balanced category funds. These are further classified into private and public funds. The reasons for studying the performance of mutual fund for a period of five years (2003-2007) are:

- A large number of mutual funds have been instigated during 2003 - 2007.
- The mutual fund industry in India registered notable growth during 2003 – 2007 Period.
- The Indian stock market has done exceptionally well during 2003 – 2007.

DATA COLLECTION

To gain an overview of the current performance trends of the Indian mutual fund industry, secondary data has been an important source and was collected from the fact sheets, newspapers, journals, books, periodicals, websites, etc. The data was collected from various websites of AMCs, AMFI, value research online, moneycontrol.com, etc. Bombay Stock Exchange Sensex annualized returns have been drawn from website to compute market returns for Equity diversified, equity tax savings, equity banking, equity MNC, Equity other and Equity index, balanced and hybrid funds. Bombay Stock Exchange FMCG Index values have been taken for computing market returns for equity FMCG funds, Bombay Stock Exchange Information Technology Index values have been used for computing market returns for equity Technology funds, Bombay Stock Exchange Health Care index values have been taken for computing market return for Equity Pharmacy and 364 Days Treasury bill values were taken for computing market returns for money market institutional, debt institutional, debt short term, debt speciality, debt long term, debt floating rate, money income plan and money market funds.

Annualized Rate of return on Treasury Bills (364 days) is taken as surrogate measure of risk free return in this research. The information regarding annual rate of return has been collected from the Directory of Statistics of Reserve Bank of India. Risk and return are calculated using monthly data.

PERFORMANCE MEASURES USED IN THE STUDY

The performance of selected funds is evaluated using average rate of return of fund, standard deviation, Risk/Return, Sharpe Ratio, Treynor ratio and Jensen ratio. Return alone should not be considered as the basis of measurement of the performance of a mutual fund scheme, it should also include the risk taken by the fund manager because different funds will have different levels of risk attached to them. Risk associated with a fund, in a general, can be defined as variability or fluctuations in the returns generated by it. The higher the fluctuations in the returns of a fund during a given period, higher will be the risk associated with it. Standard deviation is a statistical measure of the range of a fund's performance, and is reported as an annual number. When a fund has a high standard deviation, its range of performance has been very wide, indicating that there is a greater potential for volatility. The most common measures that combine both risk and reward are Treynor ratio, Sharpe Ratio and Jensen ratio.

Treynor's index = $(R_p - R_f) \div \beta_p$

Where,

R_p = Portfolio return over a period

R_f = Risk-free return over a period

β_p = Market-risk, beta coefficient

Higher value of Treynor's index indicates better performance of portfolio and vice versa. The Treynor's measure of portfolio performance is relative measure that ranks the funds in terms of risk (market risk) and return. The index is also termed as reward to volatility ratio.

Sharpe's index = $(R_p - R_f) \div \sigma_p$

Where,

R_p = Portfolio return over a period

R_f = Risk-free return over a period

σ_p = Total risk, standard deviation of portfolio return

Higher value of Sharpe's index indicates better performance of portfolio and vice versa. The Sharpe's measure of portfolio performance is also relative measure that ranks the funds in terms of risk (total risk) and return. The ratio is also termed as reward to variability ratio.

Jensen's Measure is a risk-adjusted performance measure that represents the average return on a portfolio over and above that predicted by the capital asset pricing model (CAPM), given the portfolio's beta and the average market return. This is the portfolio's alpha. In fact, the concept is sometimes referred to as "Jensen's alpha."

Jensen's Measure is calculated as:

$\alpha_P = \overline{r_P} - [r_f + \beta_P(\overline{r_m} - r_f)]$

Where,

$\overline{r_P}$ = Expected total portfolio return

r_f = Risk free rate

β_P = Beta of the portfolio

$\overline{r_m}$ = Expected market return

Jensen's measure is one of the ways to help determine if a portfolio is earning the proper return for its level of risk. If the value is positive, then the portfolio is earning excess returns. In other words, a positive value for Jensen's alpha means a fund manager has "beat the market" with his or her stock picking skills. The Jensen ratio measures how much of the portfolio's rate of return is attributable to the manager's ability to deliver above-average returns, adjusted for market risk. The higher the ratio, the better the risk-adjusted returns. A portfolio with a consistently positive excess return will have a positive alpha, while a portfolio with a consistently negative excess return will have a negative alpha.

Mutual funds are broadly classified into private sector and public sector mutual funds. The present study deals with a comparative study of performance of private sector mutual funds and public sector mutual funds. Whether private mutual funds are performing better than public funds or vice-versa or both are performing more or less equally, will provide an insight to the investors in the selection of funds.

COMPARISON BETWEEN PRIVATE AND PUBLIC MUTUAL FUNDS ON THE BASIS OF SHARPE, TREYNOR AND JENSEN RATIOS

It is observed from **Table 1** that, Risk adjusted performance measure i.e. Sharpe ratio has been computed for 280 Private funds and 60 Public funds. The range of excess returns over risk-free return per unit of total risk is wide for both Private and Public funds ranging from -2.68 to 2.83 and -1.91 to 3.26 respectively. This signifies that there is wide variation in the risk-return profile of both Private funds and Public funds. A comparison of Sharpe ratios between Private and Public funds reveals that 57% of the Private funds and 65% of the Public funds have positive ratio.

It is also observed that 58% of the Private Mutual Funds and 65% of the Public Mutual Funds have positive Treynor ratio. The range of excess returns over risk free return per unit of systematic risk is wide for both Private and Public Funds ranging from -1770.87 to 130.16 and -13.83 to 148.74 respectively. But the range is more for Private Funds when compared to public funds.

Jensen ratio was also computed and it is found that 31% of the Private Mutual Funds and 48% of the Public Mutual Funds have positive Jensen ratio indicating superior performance.

Based on all performance measures, it is evident that the Public Mutual Funds which have performed better are more than the Private Mutual Funds.

TABLE 1: COMPARISON BETWEEN PRIVATE AND PUBLIC MUTUAL FUNDS ON THE BASIS OF SHARPE, TREYNOR AND JENSEN RATIOS

Sharpe	Treynor	Jensen	Private Mutual Funds	S. No	Public Mutual Funds	Sharpe	Treynor	Jensen
1.62	36.12	-1.53	Benchmark Nifty BeEs	1	BOB Balance Fund	1.13	86.64	12.74
1.02	28.75	-17.18	Benchmark Nifty Junior BeEs	2	BOB ELSS 96	1.13	30.62	-9.72
-0.11	-0.13	-0.15	Birla Cash Plus - Retail (Plan B)	3	BOB Gilt Fund	-0.91	-2.04	-3.15
-0.20	-0.26	-0.41	Birla Floating Rate Fund - Long Term Plan	4	BOB Growth Fund	1.57	78.52	16.20
-0.31	-0.40	-0.57	Birla Floating Rate Fund - Short Term Plan	5	BOB Income Fund	-1.91	6.22	-1.53
1.45	32.61	-5.53	Birla Index Fund	6	BOB Liquid Fund	-0.29	-0.36	-0.27
1.15	32.09	-6.17	Birla MNC Fund	7	Canara Robeco CIGO	1.33	1.92	9.13
1.71	44.72	5.46	Birla Sun Life 95 Fund	8	Canara Robeco Equity Diversified	1.87	64.20	13.08
1.40	35.20	-3.32	Birla Sun Life Advantage Fund	9	Canara Robeco Equity Tax Saver	1.60	39.60	2.05
1.30	32.23	-4.54	Birla Sun Life Balance	10	Canara Robeco Gilt PGS	-0.52	-1.18	-1.79
1.12	29.95	-15.48	Birla Sun Life Basic Industries Fund	11	Canara Robeco Income	-0.08	-0.37	-0.21
1.91	84.77	25.42	Birla Sun Life Buy India Fund	12	Canara Robeco Liquid	0.09	0.11	0.11
-0.13	-0.15	-0.21	Birla Sun Life Cash Manager - Inst. Plan	13	Canara Robeco Liquid Plus - Retail Plan	-0.06	-0.10	-0.21
-0.09	-0.11	-0.11	Birla Sun Life Cash Manager	14	LIC MF Balanced Fund - C	1.32	48.79	6.08
-0.21	-0.25	-0.35	Birla Sun Life Cash Plus - Institutional Plan (Plan C)	15	LIC MF Bond Fund	-0.32	-0.63	-0.91
0.95	28.75	-13.26	Birla Sun Life Dividend Yield Plus	16	LIC MF Childrens Fund	0.49	0.66	9.75
1.84	49.24	13.71	Birla Sun Life Equity Fund	17	LIC MF Equity Fund	1.09	27.37	-13.92
1.72	39.12	1.65	Birla Sun Life Frontline Equity Fund	18	LIC MF Govt. Sec. Fund	-0.59	-2.18	-1.81
0.07	-1.06	0.13	Birla Sun Life Gilt Plus (Liquid Plan)	19	LIC MF Growth Fund	1.11	29.91	-10.75
-0.15	-1.52	-0.75	Birla Sun Life Gilt Plus (PF Plan)	20	LIC MF Index Fund - Nifty Plan	1.12	25.49	-12.77
0.06	0.22	0.31	Birla Sun Life Gilt Plus (Regular Plan)	21	LIC MF Index Fund - Sensex Advantage Plan	1.66	37.70	0.01
-0.27	5.68	-1.33	Birla Sun Life G-Sec. Fund - Long Term	22	LIC MF Index Fund - Sensex Plan	1.47	33.14	-3.92
-0.59	-1.20	-1.87	Birla Sun Life G-Sec. Fund - Short Term	23	LIC MF Liquid Fund	0.32	0.42	0.37
0.12	0.19	0.57	Birla Sun Life Income Fund	24	LIC MF Monthly Income Plan	1.18	1.42	5.31
-0.05	-0.09	-0.27	Birla Sun Life Income Plus - Retail (Plan B)	25	LIC MF Short Term Plan	-1.35	-1.58	-1.35
1.60	43.75	3.99	Birla Sun Life India Opportunities Fund - Plan B	26	LIC MF Tax Plan	1.03	25.05	-17.38
-0.01	-0.01	-0.01	Birla Sun Life Liquid Plus Fund - Institutional (Plan C)	27	LIC MF Unit Linked Insurance Scheme	1.88	55.85	7.53
0.05	0.07	0.07	Birla Sun Life Liquid Plus Fund - Retail (Plan B)	28	Principal Balanced Fund	1.50	40.51	2.06

1.65	43.85	7.78	Birla Sun Life Midcap Fund	29	Principal Cash Mgmt - Liquid - Inst. Plan	-0.28	-0.35	-0.51
1.00	4.54	6.21	Birla Sun Life Monthly Income	30	Principal Cash Mgmt - Liquid Fund	-0.20	-0.25	-0.25
0.95	2.79	4.69	Birla Sun Life Monthly Income Plan	31	Principal Child Benefit Fund - Career Builder Plan	1.89	57.46	11.64
1.72	52.96	19.21	Birla Sun Life New Millennium	32	Principal Child Benefit Fund - Future Guard Plan	1.90	57.64	11.72
0.13	0.17	0.29	Birla Sun Life Short Term Fund	33	Principal Govt Sec. Fund - Investment Plan	-0.08	-0.51	-0.33
-0.74	-1.60	-2.11	Birla Sun Life Short Term Opportunities Fund - Retail Plan	34	Principal Govt Sec. Fund - Savings Plan	-1.05	-13.83	-1.53
1.07	27.58	-21.53	Birla Sun Life Tax Plan	35	Principal Growth Fund	1.85	56.92	14.75
1.42	36.20	-2.04	Birla Sun Life Tax Relief 96	36	Principal Income Fund	-0.07	-0.15	-0.23
1.04	27.42	-21.79	Birla Tax Plan 98	37	Principal Income Fund - Institutional Plan	-0.12	-0.16	-0.33
-0.11	-0.19	-0.19	DBS Chola Freedom Income - Short Term Fund	38	Principal Income Fund - Short Term Plan	0.17	0.21	0.19
-0.45	-0.90	-9.61	DBS Chola Freedom Income - STF Institutional Plan	39	Principal Income STP - Institutional Plan	-0.10	-0.12	-0.17
-0.26	1.33	-1.33	DBS Chola Gilt - Investment Plan	40	Principal Index Fund	1.39	31.28	-6.75
1.54	37.72	0.04	DBS Chola Growth Fund	41	Principal Monthly Income Plan	0.67	1.38	4.25
-0.24	-0.29	-0.35	DBS Chola Liquid Fund - Institutional Plus	42	Principal Personal Tax Savings Fund	1.50	42.40	5.25
-0.18	-0.21	-0.19	DBS Chola Liquid Fund - Regular	43	Principal Resurgent India Equity Fund	1.08	27.43	-19.78
0.71	1.02	2.81	DBS Chola Monthly Income Plan - Regular	44	Principal Tax Savings Fund	2.02	54.67	16.58
-1.03	10.87	-2.85	DBS Chola Triple Ace	45	SBI Magnum Balanced Fund	2.18	57.73	14.58
1.60	38.94	1.16	DSP-ML Balanced Fund	46	SBI Magnum Childrens Benefit Plan	0.92	-6.42	5.79
-0.60	-2.92	-1.65	DSP-ML Bond Fund - Retail Plan	47	SBI Magnum Contra Fund	2.67	85.81	36.52
1.52	36.74	-1.53	DSP-ML Equity Fund - Regular Plan	48	SBI Magnum FMCG Fund	1.10	42.33	14.61
-0.93	-2.04	-1.03	DSP-ML Floating Rate Fund - Regular Plan A	49	SBI Magnum Gilt - Long Term Plan	-0.39	-1.37	-1.53
-0.25	-8.10	-0.89	DSP-ML Govt. Sec. Fund - Plan A	50	SBI Magnum Gilt - Short Term Plan	-0.13	-0.26	-0.43
-0.73	-2.51	-0.87	DSP-ML Govt. Sec. Fund - Plan B	51	SBI Magnum Global Fund	3.26	148.74	47.73
-0.28	-0.34	-0.25	DSP-ML Liquidity Fund	52	SBI Magnum Income Fund	-0.55	-1.65	-1.79
1.33	33.34	-7.40	DSP-ML Opportunities Fund - Regular Plan	53	SBI Magnum Index Fund	1.46	32.31	-5.77
1.31	-11.04	4.83	DSP-ML Saving Plus Fund - Moderate	54	SBI Magnum Insta Cash Fund - Liquid Floater Plan	-0.02	-0.03	-0.03
-0.18	-0.37	-0.21	DSP-ML Short Term Fund	55	SBI Magnum Insta Cash Fund (Cash)	-0.12	-0.15	-0.15
2.83	-304.40	46.42	DSP-ML Technology.Com - Regular Plan	56	SBI Magnum IT Fund	1.27	18.35	-8.45
1.33	31.96	-9.82	DSP-ML Top 100 Equity Fund - Regular Plan	57	SBI Magnum Monthly Income Plan	0.73	12.21	3.05
1.39	33.69	-5.92	DWS Alpha Equity Fund	58	SBI Magnum Multiplier Plus	1.81	43.31	7.71
-0.09	-0.11	-0.13	DWS Insta Cash Plus Fund	59	SBI Magnum Pharma Fund	0.89	38.63	13.81
-0.12	0.60	-0.49	DWS Premier Bond Fund - Regular Plan	60	SBI Magnum Tax Gain Scheme	1.83	59.40	25.41
0.06	0.09	0.09	DWS Short Maturity Fund	61				
1.51	39.65	1.86	Escorts Balanced Fund	62				

-0.63	-5.81	-1.77	Escorts Gilt Fund	63	
1.72	49.70	10.93	Escorts Growth Plan	64	
0.22	-2.08	0.65	Escorts Income Plan	65	
1.16	33.71	-2.09	Escorts Opportunities Fund	66	
1.38	33.14	-5.93	Escorts Tax Plan	67	
1.15	22.01	0.96	Franklin FMCG Fund	68	
1.31	31.96	-8.67	Franklin India Blue chip Fund	69	
1.82	39.66	1.72	Franklin India Index Fund - BSE Sensex	70	
1.68	37.58	-0.11	Franklin India Index Fund - NSE Nifty Plan	71	
1.54	34.28	-3.50	Franklin India Index Tax Fund	72	
2.12	46.19	8.40	Franklin India Opportunities Fund	73	
0.99	28.91	-18.56	Franklin India Prima Fund	74	
1.68	39.20	1.91	Franklin India Prima Plus Fund	75	
1.55	42.43	5.11	Franklin India Tax Shield	76	
-1.53	8.89	-6.49	Franklin Indian International Fund	77	
0.82	12.76	-17.11	Franklin Infotech Fund	78	
0.71	27.07	1.87	Franklin Pharma Fund	79	
1.51	34.80	-2.66	FT India Balanced Fund	80	
1.48	7.58	6.41	FT India Monthly Income Plan	81	
1.43	33.59	-3.00	HDFC Balanced Fund	82	
1.45	47.94	11.50	HDFC Capital Builder Fund	83	
-0.42	-0.49	-0.63	HDFC Cash Management Fund - Call Plan	84	
0.07	0.08	0.09	HDFC Cash Management Fund - Saving Plan	85	
-0.08	-0.10	-0.13	HDFC Cash Management Savings Plus - Retail Plan	86	
1.26	35.52	-1.34	HDFC Childrens Gift Fund - Investment Plan	87	
0.73	-5.10	5.47	HDFC Childrens Gift Fund - Savings Plan	88	
1.38	35.40	-3.50	HDFC Equity Fund	89	
-0.33	-0.38	-0.45	HDFC Floating Rate Income Fund - LTP	90	
-0.02	-0.02	-0.03	HDFC Floating Rate Income Fund - STP - Retail Plan	91	
-0.43	-4.66	-2.05	HDFC Gilt Fund - Long Term Plan	92	
-0.92	-3.24	-1.41	HDFC Gilt Fund - Short Term Plan	93	
1.37	33.53	-6.46	HDFC Growth Fund	94	
-0.53	-2.35	-1.77	HDFC High Interest Fund	95	
0.09	0.12	0.21	HDFC High Interest Fund - Short Term Plan	96	

-0.38	-1.67	-1.37	HDFC Income Fund	97	
1.38	30.47	-7.94	HDFC Index Fund - Nifty Plan	98	
1.80	39.19	1.29	HDFC Index Fund - Sensex Plan	99	
1.79	39.09	1.38	HDFC Index Fund - Sensex Plus Plan	100	
-0.11	-0.13	-0.17	HDFC Liquid Fund - Premium Plan	101	
-0.10	-0.11	-0.15	HDFC Liquid Fund - Premium Plus	102	
-0.10	-0.12	-0.15	HDFC Liquid Fund	103	
1.20	39.57	2.53	HDFC Long Term Advantage Fund	104	
1.60	39.88	2.28	HDFC Prudence Fund	105	
-0.05	-0.06	-0.09	HDFC Short Term Plan	106	
1.60	55.30	18.01	HDFC Tax Saver	107	
1.29	32.78	-8.15	HDFC Top 200 Fund	108	
-0.36	-0.49	-0.89	HSBC Cash Fund - Institutional Plan	109	
-0.14	-0.17	-0.17	HSBC Cash Fund	110	
1.16	32.11	-10.38	HSBC Equity Fund	111	
-0.16	-0.51	-0.57	HSBC Income Fund - Investment Plan	112	
-0.40	-0.48	-1.23	HSBC Income Fund - Investment Plan - Inst. Plan	113	
-0.16	-0.24	-0.23	HSBC Income Fund - Short Term Plan	114	
-0.60	1.07	-5.83	HSBC Income Fund - STP - Institutional Plan	115	
1.57	37.11	-0.48	ICICI Pru Balanced Fund	116	
1.56	41.30	3.28	ICICI Pru Child Care Plan - Gift Plan	117	
1.46	12.21	8.73	ICICI Pru Child Care Plan - Study Plan	118	
1.55	35.28	-3.22	ICICI Pru Dynamic Plan	119	
0.05	0.13	0.15	ICICI Pru Flexible Income Plan	120	
-0.10	-0.11	-0.17	ICICI Pru Floating Rate Plan B	121	
1.54	30.17	12.76	ICICI Pru FMCG Fund	122	
-0.01	-0.02	-0.03	ICICI Pru Gilt - Investment Plan	123	
0.04	0.17	0.07	ICICI Pru Gilt - Treasury Plan	124	
1.41	31.97	-7.50	ICICI Pru Growth Plan	125	
-0.16	-0.31	-0.57	ICICI Pru Income Plan	126	
0.10	0.25	0.39	ICICI Pru Income Plan - Institutional Plan	127	
1.54	34.30	-3.66	ICICI Pru Index Fund - Nifty Plan	128	
-0.08	-0.10	-0.13	ICICI Pru Liquid - Institutional Plan	129	
-0.37	-0.45	-0.71	ICICI Pru Liquid (Sweep Plan)	130	

-0.27	-0.37	-0.73	ICICI Pru Liquid Plan - Institutional Plus	131	
-0.15	-0.18	-0.21	ICICI Pru Liquid Plan	132	
2.03	-44.77	1.75	ICICI Pru Long Term Plan	133	
1.33	3.46	4.93	ICICI Pru Monthly Income Plan	134	
1.30	31.14	-10.87	ICICI Pru Power	135	
0.33	0.43	0.55	ICICI Pru Short Term Plan	136	
0.48	0.62	0.83	ICICI Pru Short Term Plan - Institutional Plan	137	
1.68	36.51	-1.25	ICICI Pru SPIcE Plan	138	
1.12	34.00	-6.22	ICICI Pru Tax Plan	139	
1.34	28.53	5.95	ICICI Pru Technology Fund	140	
-0.86	-1.01	-0.71	IDFC Cash Fund - Institutional Plan B	141	
-0.83	-1.02	-0.63	IDFC Cash Fund	142	
-0.01	-0.03	-0.05	IDFC Dynamic Bond Fund	143	
-0.25	-0.79	-1.05	IDFC G-Sec. Fund - Investment Plan	144	
-0.50	-2.28	-1.61	IDFC G-Sec. Fund - Short Term Plan	145	
-0.72	-1.10	-1.11	IDFC Liquid Plus Fund - Treasury Plan - Institutional Plan B	146	
-0.18	-0.23	-0.17	IDFC Liquid Plus Fund - Treasury Plan A	147	
-0.29	-0.63	-1.15	IDFC Super Saver Income Fund	148	
-0.55	-0.69	-1.35	IDFC Super Saver Income Fund - Medium Term Plan - A	149	
0.02	0.02	0.03	IDFC Super Saver Income Fund - STP	150	
1.78	49.85	6.21	ING Balanced Portfolio	151	
2.45	129.27	24.75	ING Core Equity Fund	152	
-2.68	-78.17	-2.19	ING Gilt Fund - Regular Plan	153	
-0.46	-0.90	-1.47	ING Income Fund	154	
-0.25	-0.38	-0.77	ING Income Fund - Institutional Option	155	
-0.15	-0.18	-0.17	ING Liquid Fund	156	
0.44	0.62	0.79	ING Short Term Income Fund	157	
1.88	45.62	4.80	JM Balanced Fund	158	
1.49	34.61	-4.08	JM Equity Fund	159	
-0.32	-0.45	-0.59	JM Floater Fund - Short Term Plan	160	
-0.36	1.74	-1.35	JM G-Sec Fund - PF Plan	161	
-0.55	7.30	-1.81	JM G-Sec Fund (RP)	162	
-0.37	-0.45	-0.55	JM High Liquidity Fund - Institutional Plan	163	
-0.31	-0.39	-0.37	JM High Liquidity Fund	164	

-0.58	-5.05	-1.65	JM Income Fund	165	
-0.56	-0.72	-1.15	JM Liquid Plus Fund - Regular Plan	166	
0.49	0.60	1.71	JM Monthly Income Plan	167	
0.24	0.36	0.39	JM Short Term Plan	168	
-0.50	0.81	-5.19	JM Short Term Plan - Institutional Plan	169	
2.19	54.63	15.63	Kotak 30	170	
2.23	57.06	11.92	Kotak Balance	171	
0.28	0.37	0.49	Kotak Bond - Short Term Plan	172	
-0.28	-0.67	-0.73	Kotak Bond (Deposit Plan)	173	
0.08	0.15	0.23	Kotak Bond (Regular Plan)	174	
-0.25	-0.32	-0.53	Kotak Floater Short Term Plan	175	
-0.21	1.33	-0.83	Kotak Gilt Investment Plan Regular	176	
-2.64	-3.31	-0.77	Kotak Gilt Savings Plan	177	
-0.26	-0.30	-0.35	Kotak Liquid - Institutional Plan	178	
-0.41	-0.51	-0.47	Kotak Liquid Regular	179	
1.20	38.46	0.77	Kotak MNC	180	
1.20	19.40	-4.12	Kotak Tech	181	
1.42	32.18	-6.60	Morgan Stanley Growth Fund	182	
1.78	-1770.87	41.13	Reliance Banking Fund	183	
0.73	1.44	0.53	Reliance Gilt Securities Fund - Long Term Plan	184	
-1.07	-1.57	-2.07	Reliance Gilt Securities Fund- Short Term Plan	185	
1.45	39.12	2.58	Reliance Growth Fund - Retail Plan	186	
0.02	0.04	0.05	Reliance Income Fund	187	
-1.10	-1.57	-0.89	Reliance Liquid Fund - Cash Plan	188	
-0.24	-0.30	-0.29	Reliance Liquid Fund - Treasury Plan	189	
-0.55	-1.09	-1.37	Reliance Medium Term Fund	190	
0.60	0.89	1.03	Reliance Short Term Plan	191	
1.12	27.36	-22.55	Reliance Vision Fund - Retail Plan	192	
-1.00	-1.56	-2.89	Sahara Gilt Fund	193	
1.46	34.33	-4.43	Sahara Growth Fund	194	
-0.34	-0.64	-1.03	Sahara Income Fund	195	
1.39	36.15	-1.88	Sahara Tax Gain	196	
1.46	35.93	-1.41	Sundaram BNP Paribas Balanced Fund	197	
-0.60	-1.77	-1.97	Sundaram BNP Paribas Bond Saver	198	

1.56	38.50	1.08	Sundaram BNP Paribas Growth Fund	199	
-0.16	-0.19	-0.17	Sundaram BNP Paribas Money Fund	200	
1.64	39.17	2.01	Sundaram BNP Paribas Select Focus - Retail Plan	201	
1.42	35.31	-4.55	Sundaram BNP Paribas Select Midcap	202	
1.87	56.49	17.96	Sundaram BNP Paribas Tax Saver	203	
1.52	36.70	-1.02	Tata Balanced Fund	204	
-0.37	-0.52	-0.93	Tata Dynamic Bond Fund - Plan A	205	
-0.40	-0.55	-0.95	Tata Dynamic Bond Fund - Plan B	206	
1.09	28.48	-21.82	Tata Equity Opportunities Fund - Plan B	207	
-0.78	-1.52	-2.87	Tata Gilt High Fund	208	
-1.00	-1.40	-3.57	Tata Gilt Retirement Plan (28/02/09 Maturity)	209	
-1.01	-1.38	-3.67	Tata Gilt Retirement Plan (28/02/10 Maturity)	210	
-1.00	-1.39	-3.61	Tata Gilt Retirement Plan (28/02/11 Maturity)	211	
-0.96	-1.37	-3.47	Tata Gilt Retirement Plan (28/02/13 Maturity)	212	
-1.04	-1.36	-3.91	Tata Gilt Retirement Plan (28/02/25 Maturity)	213	
-0.58	-1.32	-1.01	Tata Gilt Securities - Short Maturity Fund	214	
-0.30	-2.32	-1.57	Tata Gilt Securities Fund B (App)	215	
-0.02	-0.09	-0.07	Tata Income Fund	216	
-0.33	-3.49	-1.07	Tata Income Plus Fund - Plan A	217	
-0.30	-4.04	-1.01	Tata Income Plus Fund - Plan B	218	
1.54	33.70	-4.53	Tata Index Fund - Nifty Plan – A	219	
1.58	34.77	-3.14	Tata Index Fund - Sensex Plan – A	220	
1.06	29.78	-11.47	Tata Life Sciences & Technology Fund	221	
-0.16	-0.19	-0.31	Tata Liquid - Super High Investment Plan	222	
-0.12	-0.15	-0.19	Tata Liquid Fund - High Investment Plan	223	
-0.11	-0.13	-0.15	Tata Liquid Fund	224	
0.52	-5.25	3.03	Tata Monthly Income Fund	225	
1.27	32.02	-9.94	Tata Pure Equity Fund	226	
1.35	31.59	-10.87	Tata Select Equity Fund	227	
0.32	0.44	0.59	Tata Short Term Bond Fund	228	
1.11	30.80	-11.09	Tata Tax Saving Fund	229	
1.20	28.20	-7.07	Tata Young Citizens Fund	230	
1.18	42.53	5.47	Taurus Discovery Fund	231	
-0.34	2.87	-1.63	Taurus Libra Bond	232	

-0.66	1.79	-2.91	Taurus Libra Gilt	233	
2.02	48.99	14.27	Taurus Star Share	234	
0.88	130.16	8.73	Templeton (I) Childrens Asset Plan - Gift Plan	235	
0.04	0.05	0.05	Templeton Floating Rate Income Fund - LTP	236	
0.08	0.10	0.11	Templeton Floating Rate Income Fund - STP	237	
-0.21	14.59	-0.87	Templeton India Govt Sec - Composite Plan	238	
-0.38	-9.74	-0.57	Templeton India Govt Sec - Treasury Plan	239	
0.15	-0.84	0.73	Templeton India Govt. Sec. - Long Term Plan	240	
1.04	26.62	-20.87	Templeton India Growth Fund	241	
-0.45	-1.39	-1.55	Templeton India Income Builder Account	242	
-0.21	-0.47	-0.83	Templeton India Income Fund	243	
1.45	35.35	-1.11	Templeton India Pension Plan	244	
0.22	0.29	0.47	Templeton India Short Term Income Plan	245	
-0.13	-0.16	-0.15	Templeton India Treasury Mgmt Account	246	
1.13	5.29	5.23	Templeton Monthly Income Plan	247	
-1.20	-2.70	-1.87	Templeton Monthly Income Plan (Q Div)	248	
1.47	35.59	-1.50	UTI Balanced Fund	249	
-0.05	-0.12	-0.17	UTI Bond Fund	250	
1.39	32.24	-2.17	UTI Childrens Career Balanced Plan	251	
1.26	59.75	4.08	UTI CRTS 81	252	
0.74	19.68	-33.07	UTI Energy Fund	253	
1.22	31.90	-7.13	UTI Equity Fund	254	
1.49	43.94	5.47	UTI Equity Tax Savings Plan	255	
-0.49	-0.81	-1.03	UTI Floating Rate Fund - STP	256	
0.00	-0.03	0.01	UTI Gilt Advantage Fund - Long Term Plan	257	
-0.89	-1.23	-2.85	UTI Gilt Advantage Fund - LTP - PF (PDAR)	258	
-0.88	-1.23	-2.87	UTI Gilt Advantage Fund - LTP- PF	259	
-0.34	-2.38	-1.47	UTI G-Sec Fund	260	
1.29	29.90	-10.99	UTI Index Select Equity Fund	261	
-0.36	-0.46	-0.69	UTI Liquid Fund - Cash Plan - Growth	262	
-0.22	-0.27	-0.47	UTI Liquid Fund - Short Term Plan – Growth	263	
-0.55	-2.29	-1.65	UTI Liquid Plus Fund - Retail Plan	264	
1.55	37.51	-0.08	UTI Mahila Unit Scheme	265	
1.22	30.04	-11.35	UTI Master Equity Plan Unit Scheme	266	

1.72	37.40	-0.30	UTI Master Index Fund	267	
1.18	26.18	-17.42	UTI Master Plus Unit Scheme	268	
1.01	29.46	-12.57	UTI Master Value Fund	269	
1.22	31.28	-9.05	UTI Master growth 93	270	
1.89	71.28	14.58	UTI Master share	271	
1.10	28.76	-9.32	UTI MNC Fund	272	
-0.11	-0.13	-0.15	UTI Money Market Fund	273	
0.66	1.03	2.49	UTI Monthly Income Scheme	274	
1.53	34.06	-3.87	UTI Nifty Index Fund	275	
0.72	27.21	1.75	UTI Pharma & Healthcare Fund	276	
1.37	32.30	-6.67	UTI Services Industries Fund	277	
0.87	12.98	-17.37	UTI Software Fund	278	
1.73	39.69	1.75	UTI SUNDER	279	
1.21	29.54	-3.29	UTI Variable Investment Scheme - Index Linked	280	

CATEGORIES OF PRIVATE SECTOR AND PUBLIC SECTOR MUTUAL FUNDS

Private and Public sector mutual funds are further classified into different categories -

1. Private Balanced Category funds
2. Public Balanced Category funds
3. Private Debt Category funds
4. Public Debt Category funds
5. Private Equity Category funds
6. Public Equity Category funds
7. Private Money Market Category funds
8. Public Money Market Category funds

COMPARISON OF PRIVATE SECTOR AND PUBLIC SECTOR FUNDS BASED ON RETURN AND RISK PARAMETERS:

Table 2 shows that the returns of Private sector and Public sector mutual funds range from 5.13% to 50.8%. The returns are highest for Private Equity category followed by Public Equity category whereas Private Debt category has the lowest returns.

TABLE 2: RETURN AND RISK PARAMETERS FOR PRIVATE SECTOR AND PUBLIC SECTOR FUNDS

S. No	Type of Fund	Return (%)	Risk	Coefficient of Variation
1	Private Balanced	32.56	9.14	0.28
2	Public Balanced	36.23	6.91	0.19
3	Private Debt	5.13	2.01	0.39
4	Public Debt	6.35	3.55	0.56
5	Private Equity	50.80	10.92	0.22
6	Public Equity	47.97	12.96	0.27
7	Private Money Market	6.43	1.99	0.31
8	Public Money Market	7.16	2.16	0.30

The risk ranges from 1.99 to 12.96. The risk is highest for Public Equity category and lowest for Private Money market. The risk per unit returns ranges from 0.19 to 0.56. The risk per unit return ratio is highest for Public Debt Category and lowest for Public Balanced category.

HYPOTHESIS TESTING

There is no significant difference between returns of various mutual fund schemes of respective Private mutual funds category.

It is evident from **Table 3** that for Private Balanced and Private Debt mutual funds, the F value is insignificant. Therefore the null hypothesis that there is no significant difference between the returns of mutual fund schemes within the respective Private Sector Categories is accepted. It implies that the returns of mutual fund schemes do not significantly differ from one other within the respective Private Sector Mutual Fund Categories.

TABLE 3: ANOVA FOR PRIVATE SECTOR CATEGORIES

S. No	Category	F Value	Table Value
1	Private Balanced	1.24^{NS}	1.65
2	Private Debt	1.3^{NS}	1.30
3	Private Equity	2.04**	1.48
4	Private Money Market	3.38**	1.65

Note: ** P < 0.01 NS – Not Significant

For Private Equity and Private Money Market categories, the F value is significant. Therefore the alternative hypothesis that there is significant difference between the returns of mutual funds schemes within the respective Private Sector Categories is accepted. It implies that the returns of mutual fund schemes significantly differ from one another within the respective Private Sector Mutual Fund Categories.

HYPOTHESIS TESTING

There is no significant difference between returns of various mutual fund schemes of respective public mutual funds category.

From **Table 4** it can be concluded that for Public Debt and Public Money Market mutual funds, the F value is significant at 5% level. Therefore the null hypothesis that there is no significant difference between the return of mutual funds schemes within the Public Sector Categories is rejected and alternative hypothesis that there is significant difference between the returns of mutual fund schemes within the respective Public Sector Categories is accepted. It implies that the returns of mutual fund schemes significantly differ from one another.

TABLE 4: ANOVA BETWEEN RETURNS OF VARIOUS MUTUAL FUND SCHEMES OF PUBLIC MUTUAL FUNDS CATEGORY

S. No	Name	F Value	Table Value
1	Public Balanced	1.41^{NS}	3.81
2	Public Debt	2.02*	1.72
3	Public Equity	1.05^{NS}	1.84
4	Public Money Market	5.87**	2.64

Note: * P < 0.05 ** P < 0.01 NS – Not Significant

For Public Balanced and Public Equity Categories, the F value is not significant. It implies that the returns of mutual fund schemes do not significantly differ from one another.

HYPOTHESIS TESTING

There is no significant difference between the returns of private mutual funds and public mutual funds.

From **Table 5,** it can be understood that the F value is not significant. This means the null hypothesis that there is no significant difference between returns of private and public mutual funds is accepted. It implies that the returns of Private mutual funds do not significantly differ from returns of Public mutual funds.

TABLE 5: ANOVA BETWEEN RETURNS OF PRIVATE AND PUBLIC SECTOR MUTUAL FUNDS

S. No	Name	F Value	Table Value
1	Private Public	6.39^{NS}	239

Note: NS – Not Significant

CONCLUSION

Looking at the past developments and combining it with the current trends it can be concluded that the future of Mutual Funds in India has lot of positive things to offer to its investors. The competition among the private and public players has increased the choice of mutual funds schemes to the investors. The tremendous success the fund industry has enjoyed is due to the fact that, it has done more than any other financial services industry to offer investors solid products tailored to meet real financial needs, and marketed those products responsibly. If the long-term health and investor protection is maintained, the record of success can be maintained in the future irrespective of private or public mutual funds.

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TALENT MANAGEMENT PRACTICES IN IT SECTOR

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ABSTRACT

The aim of this article is to discover how talent management is currently being used by a diverse range of organizations and to discover the practices of an effective talent management program. In this competitive environment it is very important for the companies to manage their talent well, and then only they will be at a competitive edge in comparison to their rivalries. Talent management provides an overview to all management areas and principles. It has become a top priority for the organizations. The objective of the article is firstly, to find out the various challenges and trends of talent management & secondly, to identify the different ways of attracting, developing and retaining talent. The companies covered are Hewlett Packard, Infosys and Wipro.

KEYWORDS

Human Resource, Talent management, Talent paradox, War of talent, IT industry.

INTRODUCTION

In the globalized business environment, historical sources of advantage have diminished in value to the point that they are now fast becoming irrelevant. Research indicates that sustainable competent advantage in the future will come through investing in people to build organizational capabilities.

The challenges thrown up by this fast changing business environment have also opened a window to a plethora of opportunities like dramatic shift in costs through global talent sourcing and de-risking through global task distribution, achieving global operational excellence through a judicious mix of technology and service delivery models.

Solving the talent paradox is not an impossible task. But it requires an integrated strategic approach to talent management, from planning and sourcing to training, development and retention. Insightful, integrated talent management practices can not only help an organization overcome a talent shortage, but also deliver financial results that will win the approval of all stakeholders.

Talent management refers to the process of developing and integrating workers, developing and retaining current workers, and attracting highly skilled workers for a company. The term was coined by David Watkins of Softscape published in an article in 1998. The process of attracting and retaining profitable employees, as it is increasingly more competitive between firms and of strategic importance, has come to be known as "the war of talent".

Talent management implies recognizing a person's inherent skills, traits, personality and offering him a matching job. Every person has a unique talent that suits a particular job profile and any other position will cause discomfort. It is the job of management, particularly the HR department, to place candidates with prudence and caution. A wrong fit will result in further hiring, retraining and other wasteful activities.

Talent management is beneficial to both the organization and the employees. The organization benefits from; increased productivity and capability; a better linkage between individuals' efforts and business goals; commitment of valued employees; reduced turnover; a better fit between people's jobs and skills. Employees benefit from; higher motivation and commitment; about and contribution to career development; increased knowledge about and contribution to company goals; sustained motivation and job satisfaction.

In these days of highly competitive world, where change is the only constant factor, is important for an organization to develop the most important resource of all- the human resource. In this globalized world, it is only the human resource that can provide an organization the competitive edge because under the new trade agreements, technology can be easily transferred from one country to another and there is no dearth for resources of cheap finance.

Talent management a process that emerged in 1990's and continues to be adopted, as more companies come to realize that their employees, talent and skills drive their business success. Companies that have put into practice talent management have done so to solve an employee retention problem. The issue with many companies today is that their organizations put tremendous effort into attracting employees to their company, but spend little time into retaining talent.

A talent management system must be worked into the business strategy and implemented in daily processes throughout the company as a whole. It cannot be left solely to the human resources department to attract and retain employees, but rather must be practiced at all levels of the organization. The business strategy must include responsibilities for line managers to develop the skills of their immediate subordinates. Divisions within the company should be openly sharing the information with other departments in order for employees to gain knowledge of the overall organizational objectives. Companies that focus on developing their talent integrate plans and processes to track and manage their employee talent, including the following; Sourcing, attracting, recruiting and on boarding qualified candidates with competitive backgrounds ;Managing and defining competitive salaries; Training and development opportunities; Performance management processes; Retention programs & Promotion and transitioning.

Companies that engage in talent management are strategic and deliberate in how they source, attract, select, train, develop, retain, promote, and move employees through the organization. There are some of the measures that should be taken into account to hire and retain talent in the organization, to be efficient and competitive in this highly competitive world; Hire the right people; Keep the promises; Good working environment; Recognition of merit; Providing learning opportunities and shielding from high work pressure.
The IT industry has effectively ensured that the old personnel department is gone and done away with. Human resources today are completely about talent management and retention.

NEED OF THE STUDY

There is a huge demand of engineering graduates in India, but supply is always less than the demand. This problem further aggravates if the quality of engineer graduates produced are not at par with their international counterparts. India has a huge young population which should be harnessed properly by channelising their talent in the right direction.
The challenging task is to retain and develop the talent within the company together with attracting the best of the talent. The present study analyses the existing Indian scenario in terms of developing, retaining and attracting the talent.

METHODOLOGY

It is a descriptive type of research. Survey method has been adopted to carry on the research. Multiple questions were administered to the software engineers.
The sampling technique adopted is that of convenience sampling. The samples were chosen based on the data that was readily available, for the purpose of the research and the sampling units were chosen primarily on the basis of convenience of the researcher. Data was collected both from primary and secondary resources. The primary data was collected using structured questionnaire and secondary data was collected from different journals, textbooks, websites etc.
The data collected through questionnaires were in the crude form. In order to convert it into readable form, the data collected was presented in the form of tables. The information in the tables is converted into the percentage for the ease of readers. Data was examined for almost one hundred and fifty respondents from primarily three companies i.e. Hewlett Packard, Infosys and Wipro. Fifty respondents were selected from each of the above mentioned companies.

FINDINGS

TABLE 1:- EMPLOYEE EXPERIENCE IN A COMPANY

a)Less than a year	2%
b)1-2 years	18%
c)2-5 years	60%
d)5-10 years	10%
e)10 years and above	10%

INFERENCE

Most of the employees have the experience of two to five years in their respective companies.

TABLE 2:- AN ORGANIZATION IDENTIFY TALENT

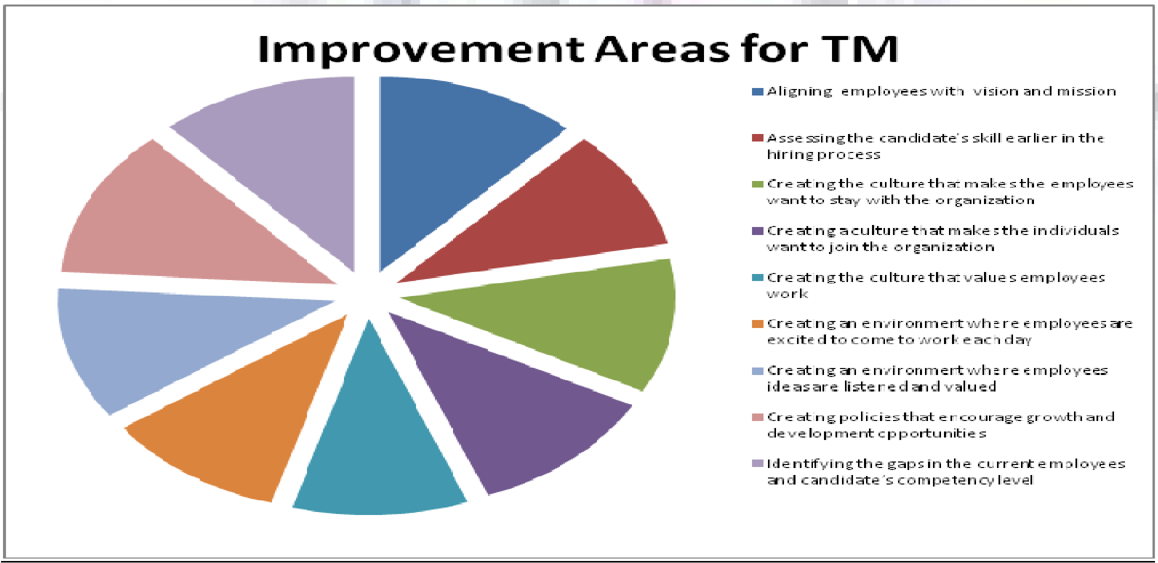
a)By competencies	35%
b) By results	58%
c)By potential	7%

INFERENCE

As the table above shows majority of the organizations identify talent mostly by results, followed by competencies and lastly by potential.

TABLE 3:- AREAS WHICH ORGANIZATION NEEDS TO IMPROVE IN TERMS OF TALENT MANAGEMENT INITIATIVES

a)Aligning the employees with the vision and mission of the organization	60%
b)Assessing the candidate's skill earlier in the hiring process	50%
c)Creating the culture that makes the employees want to stay with the organization	56%
d)Creating a culture that makes the individuals want to join the organization	57%
e)Creating the culture that values employees work	52%
f)Creating an environment where employees are excited to come to work each day	54%
g)Creating an environment where employees ideas are listened and valued	55%
h)Creating policies that encourage growth and development opportunities	62%
i)Identifying the gaps in the current employees and candidate's competency level	59%



INFERENCE

As the table shows most important area where organization needs to improve is creating policies that encourage growth and development opportunities followed by aligning the employees with the vision and mission of the organization and identifying the gaps in the current employees and candidate's competency level.

TABLE 4:- IN AN ORGANIZATION PEOPLE WHO ARE PRIMARILY RESPONSIBLE FOR FOLLOWING ACTIVITIES

Aspects	No one	Managers	HR staff	Outside consultants
a)Recruiting individuals		10%	80%	10%
b)Further developing employees		15%	70%	15%
c)Retaining employees		60%	40%	

INFERENCE

For recruiting individuals and for further developing employees mostly HR staff is responsible, while for retaining employees mostly managers are responsible.

TABLE 5:- AN ORGANIZATION'S TALENT MANAGEMENT INITIATIVES ARE

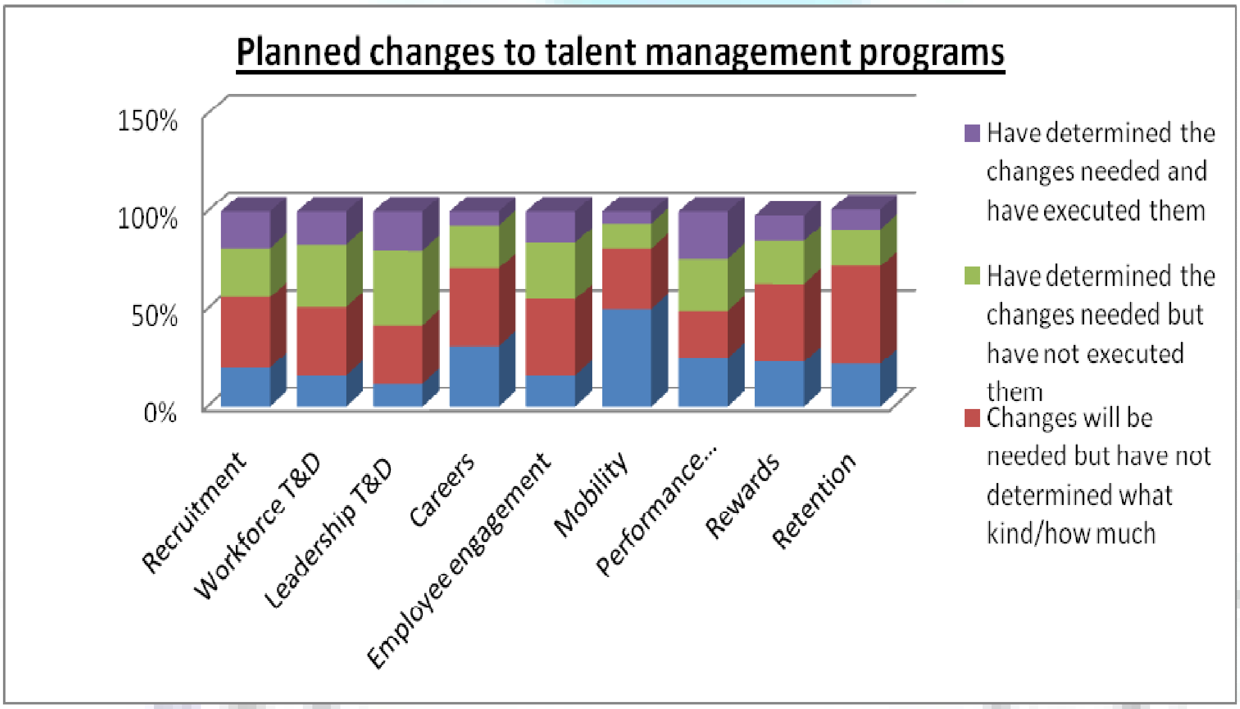
a)Acquiring talent	21%
b)Leveraging the existing ones	32%
c)Retaining the current potential	47%

INFERENCE

Most of the organization's talent management initiative is focused on retaining the current potential followed by leveraging the existing ones and acquiring talent.

TABLE 6:- PLANNED CHANGES FOR THE TALENT MANAGEMENT PROGRAMS

Aspects	No changes will be needed in this program	Changes will be needed but have not determined what kind/how much	Have determined the changes needed but have not executed them	Have determined the changes needed and have executed them
a)Recruitment/Talent acquisition	20%	36%	25%	19%
b)Training and development(for workforce)	16%	35%	32%	17%
c)Training and development(for leadership)	12%	30%	38%	20%
d)Careers	31%	40%	22%	7%
e)Employee engagement	16%	39%	29%	16%
f)Mobility	50%	31%	13%	6%
g)Performance management	25%	24%	27%	24%
h)Rewards	23%	40%	22%	13%
i)Retention	22%	50%	19%	10%

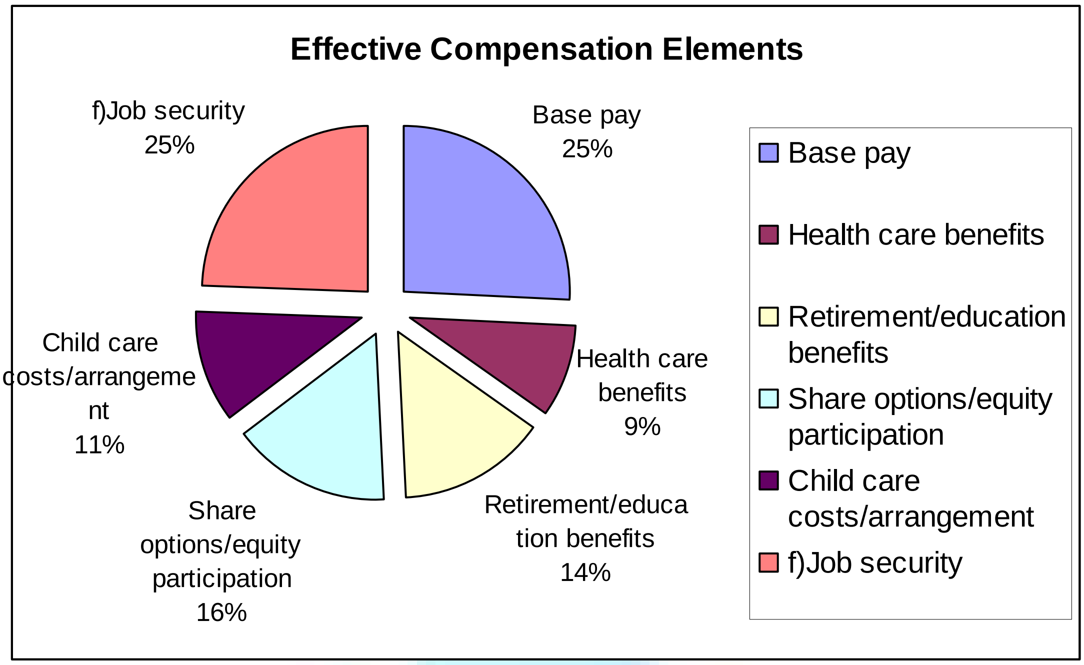


INFERENCE

As it is shown in the table maximum percentage of the employees need change in retention, rewards and careers program but have not determined what kind/ how much.

TABLE 7:-ELEMENTS OF COMPENSATION IN TERMS OF ATTRACTING AND RETAINING TOP PERFORMERS

Aspects	Percentage
a)Base pay	58%
b)Health care benefits	20%
c)Retirement/education benefits	32%
d)Share options/equity participation	35%
e)Child care costs/arrangement	24%
f)Job security	55%



INFERENCE

The employees have considered base pay followed by job security and share option to be the most effective element of compensation in terms of attracting and retaining top performers.

TABLE 8:-TOP TALENT MANAGEMENT PRIORITIES OF AN ORGANIZATION OVER NEXT THREE TO FIVE YEARS

Leadership succession	29%
Training and development(leadership)	28%
Succession planning	20%
Key talent/high potential	19%
Workforce planning	19%
Employee engagement	19%
Compensation competitiveness	17%
Talent acquisition/external labor supply	16%
Unwanted turnover/attrition	16%
Performance management	14%
Aging workforce issues	13%
Training and development(workforce)	8%
Talent management technology	7%
Careers	3%

INFERENCE

The maximum response for talent management priorities is for leadership succession followed by training and development (leadership) and succession planning for next three to five years.

LIMITATIONS

- The study was conducted for a limited period of time.
- The study assumes that respondents have elicited an unbiased response.
- The human behavior cannot be objectively measured, unlike in scientific experiments where there are predetermined yardsticks. Therefore many aspects were measured on the basis of multiple choice questions.

RECOMMENDATIONS

- Organizations must try to align the employees with the companies' objectives and policies. This means the emphasis should be on employee involvement, where the employees' ideas are adopted and put to use.
- The organizations should provide the opportunity for advancement. They should create a good career path for their strong performers.
- The organization should provide the opportunity to its employees so that they are aware of the new technologies. Organization should conduct the training programs or send their employees abroad for training.
- There should be leadership programs so that candidates' are provided the opportunity to enhance their leadership and supervision skills.
- The organizations recruiting systems and processes should be closely scrutinized and if there are any loopholes it should be eradicated. These systems not only support the retention practices, but they also increase the likelihood that employees are committed on a long term basis and performing at their best.
- Organization data collection systems must gather sufficient information to pinpoint where the attrition problem is most severe uncover the specific causes for the attrition.

CONCLUSION

Since people are the biggest asset in any enterprise, it is necessary not only to invest in them but also to sustain them. A well structured and rationalized Talent management system can improve employee relation with management and enhance organizational effectiveness.

As organizations continue to pursue high performance and improved results through talent management practices, they are taking a holistic approach to talent management from attracting and selecting wisely, to retaining and developing leaders, to placing the employees in the position of greatest impact. The motto is clear; for organization to succeed in today's rapidly changing and increasingly competitive market place, intense focus must be applied to align the human capital with corporate strategy and objectives.

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FREQUENT PATTERN MINING USING DYNAMIC PROGRAMMING

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ABSTRACT

Data mining methodologies have been developed for exploration and analysis of large quantities of data to discover meaningful patterns and rules. Frequent pattern mining is an important model in data mining. In this pattern mining given a data base of customer transactions, the task is to unearth all patterns in the form of sets of items appearing in a sizable number of transactions. Here the attempt is to discover frequent pattern using the Dynamic programming methods in operation research. Here we can calculate the frequent pattern item set by stages of operations.

KEYWORDS
Data mining, Dynamic programming, Frequent pattern mining.

INTRODUCTION
Frequent item set mining [1] is popular frame work for pattern discovery. Frequent patterns are patterns that appear in a data set frequently. For example set of items such as milk and bread, that appear frequently together in a transaction data set is a frequent item set. The concept of frequent item set was first introduce for mining transaction data base and was first proposed by Agarwal. et. al (1993).

Frequent mining searches for declining relationship in a given data sets. Frequent item set mining leads to the discovery of associations and correlations among items in large transactional or relational data sets. With massive amounts of data, continuously being collected and stored, many industries are becoming interested in mining such patterns from their data bases. The discovery of interesting correlation relationship among huge amounts of business transaction records can help in many business decision making process, such as catalog design cross marketing and customer shopping behavior analysis.

A typical example of frequent item set mining is market basket analysis. This process analyzes customer buying habits by finding associations between the different items that customers place in their 'shopping baskets'. The discovery of such associations can help retailers develop marketing strategies by gaining insight into which items are frequently purchased together by customers. For instance, if customers are buying milk, how likely are they to also buy bread on the same trip to the supermarket? Such information can lead to increased sales by helping retailers do selective marketing and plan their shelf space.

This paper discusses frequent pattern by Dynamic programming methods. Here the problem is divided into different stages and at each stage frequent patterns are found. Section 2 deal with an overview of some related work for mining frequent patterns. In section 3 some definitions are given. Section 4 is about Dynamic programming methods. Section 5 discuss frequent mining model with DP. In section 6 an example is discussed. Final section is the conclusion.

RELATED WORKS
As an important data mining problem, frequent pattern mining plays an essential role in many data mining tasks, such as mining associations [2,8], sequential patterns [18,13] maximum patterns and frequent closed patterns [5,12,16] classification [6,15] and clustering [4]. There have been many algorithms developed for fast mining of frequent patterns which can be classified into two categories. The first category, candidate generation and test approach, such as Apriori [2] as well as many subsequent studies, are directly based as an anti-monotone. If a pattern with K items is not frequent, any of its super-patterns with (K+1) or more items can never be frequent. A candidate generation and test approach iteratively generates the set of candidate patterns of length (K+1) from the set of frequent patterns of length K ($K \geq 1$), and check their corresponding occurrence frequencies in the data base.

The Apriori algorithm achieves good reduction on the size of candidate sets. However, when there exist a large number of frequent patterns or long patterns, candidate generation and test methods may still suffer from generating huge numbers of candidates and taking many scans of large data bases for frequency checking.

Recently, other category methods, pattern-growth methods, such as FP growth [11] and Trade projection [3] have been proposed. A pattern – growth methods uses the Apriori property. However, instead of generating candidate sets, it recursively partitions the data base in to sub-data bases according to the frequent patterns found and searches for local frequent patterns to assemble longer global ones. In [10] shows that H-Mine has high performance in various kinds of data, out performs the previously developed algorithms in different settings, and is highly scalable in mining large data bases. In [19] developed an algorithm termed – A

Dynamic approach for frequent patterns mining using Transposition of Data base for mining frequent patterns which are based on Apriori algorithm and used Dynamic function for longest common subsequence. In [7] output from hidden Markov models into the association rule mining frame work, demonstrating the potential for frequent pattern mining in the field of scientific modeling and experimentation. New probabilistic formulations of frequent item set based on possible world semantics are introduced in [21]. In [17] a statistical approach to the success probability for the simple shopping model where every item has the same probability and all the items and all the transactions are independent is given. A class of models called Item Set Generating models (IGM) that can be used to formally connect the process of frequent item sets to discover with the learning of generative models are presented in [20].

FREQUENT PATTERN MINING
Definition: Let I = $\{x_1, x_2 \ldots\ldots x_n\}$ be a set of items. An item set X is a subset of items, ie, $X \subseteq I$. For the sake of brevity, an item set X = $\{x_1, x_2 \ldots. x_m\}$ is also denoted as X = $x_1 x_2 \ldots x_m$. A transaction T = (tid, X) is a 2-tuple, where tid is a transaction-id and X is an item set. A transaction T = (tid, X) is said to contain item set Y if and only if $Y \subseteq X$. A transaction database TDB is a set of transactions. The number of transactions in TDB containing item set X is called the support of X, denoted as

sup(X). Given a transaction database TDB and a support threshold min-sup, an item set X is a frequent pattern, or a pattern in short, if and only if sup (X) $\geq$ min-sup.
The problem of frequent pattern mining is to find the complete set of frequent patterns in a given transaction database with respect to a given support threshold.

DYNAMIC PROGRAMMING

The method of dynamic programming (DP) was developed in 1950's through the work of Richard Bellman who is still the doyen of research workers in this field. The essential feature of the method is that a multivariable optimization problem is decomposed into a series of stages, optimization being done at each stage with respect to one variable only. Richard Bellman gave it rather the undescriptive name of dynamic programming. A more significant name would be recursive optimization.
To case a verbal problem into a multistage structure is not always simple: often it is very difficult and even looks mysterious. But once done, recursive optimization is easy to apply. Recursion equations are a standard type and the related computer programming is a standard routine.

FREQUENT ITEM MINING BY DYNAMIC PROGRAMMING

Let I = $\{x_1, x_2 \ldots\ldots x_n\}$ be a set of items. Let T = $\{T_1, T_2 \ldots\ldots T_k\}$ be a set of data base of customer transactions. Each transaction T_i is a collection of items purchased by a customer in one visit to a store. A non-empty set of items is called an item set. Our aim is to find the items whose frequency exceeds a user defined threshold referred to as a frequent item set.
Let the number of an item in the whole transaction is greater than or equal to 'p' then it is considered as frequent item. First we search for a single item which occurs as frequent item. From that we will get sets of frequent items containing one element. After that we check for frequent item sets with two element and then check for frequent items set with three elements. Continue the process so as to get frequent item sets with maximum number of elements. We use D.P method by dividing the problems into stages and find the optimal solution for each stage. Each stage consists of some state variables and return functions.

	x_1	x_2	………	………	x_n
T_1	$p_1(x_1)$	$p_1(x_2)$	…………	……..	$P_1(x_n)$
T_2	$p_2(x_1)$	$P_2(x_2)$	……..	………	$P_2(x_n)$
…….	………	………	……….	……….	……….
…..	……….	………	………….	………..	…….
T_k	$p_k(x_1)$	$p_k(x_2)$	………	………	$p_k(x_n)$

The above table gives the relation between the transaction and items where $p_{k}(x_n)$ is the probability of x_n in the k^{th} transaction. $p_j(x_i)$ = 1 if $x_i \in T_j$ and equal to zero other wise .
The first stage is to find all the frequent item sets with single item. Here we have to check which among. x_1 ..x_2 ...... x_n are frequent items.
The return function for the variable x_i is

$$F_1(x_i) = \sum_{J=1}^{k} p_j(x_i) \text{ is the return function.}$$

If $\sum_{J=1}^{k} p_j(x_i) \geq p$ then xi is frequent item if it is less than P then it is not a frequent item. So we can remove the item from further stages.

Let I = $(x_{11}, x_{12} \ldots\ldots x_{1q})$ are the frequent item from stage 1. The Table for stage 1 is given follows:

Item	count in the transaction
x_1	$\sum_{j=1}^{k} p_j(x_1)$
x_2	………..
…	……….
….	……..
….	……..
x_n	$\sum_{j=1}^{k} p_j(x_n)$

Now we enter the second stage with variables from the first stage as frequent. Here our attempt is to find frequent item sets with two elements.
Here the return function for the variables (x_{1i}, x_{1k}) is

$$F_2(x_{1i}, x_{1k}) = \sum_{j=1}^{k} p_j(x_{1i})\, p_j(x_{1k} / x_{1i})$$

where x_{1i} and x_{1k} element of $\{x_{11}, x_{12} \ldots\ldots x_{1q}\}$ and $p_j(x_{1k} / x_{1i})$ = 1 if $(x_{1i}, x_{1k}) \in T_j$
= 0,other wise

if $\sum_{j=1}^{k} p_j(x_{1i})\, p_j(x_{1k} / x_{1i}) \geq p$ then (x_{1i}, x_{1k}) is a frequent pattern or associate items

Table for second stage

	x_{12}	....	....	x_{1q}
x_{11}	$\sum_{j=1}^{k} p_j\ (x_{11})p_j\ (x_{12}/\ x_{11})$	....	....	....
x_{12}	______	....	....	....
....	....	....	....	....
....		....	....	....
	.....	....		
....	....	....	....	....
	....	....	....	.....
x_{1q}	$\sum_{J=1}^{k} p_j\ (x_{1q})p_j\ (x_{12}/\ x_{11})$	....	......	....

From the second stage give frequent item set of two items. In the third stage examines for frequent item set of three elements. The return function

$$\sum_{J=1}^{k} p_j\ (x_{2q})p_j\ (x_{2r},x_{2s}/x_{2q}) \ \_\_\_\_\ A$$

Where $p_j\ (x_{2r},x_{2s}/x_{2q}) = 1$ if x_{2r},x_{2s},x_{2q} € T_j and zero other wise . x_{2r},x_{2s},x_{2q} is a frequent item set if A≥ p.

Continued for getting frequent item set containing maximum number of items which satisfies the minimum threshold.

EXAMPLE

Following is a transactional data given the items in each transaction.

T_iD	List of items
T_1	11, 12, 15
T_2	12, 14
T_3	12 , 13
T_4	11, 12, 14
T_5	11, 13
T_6	12, 13
T_7	11, 13
T_8	11, 12, 13, 15
T_9	11, 12, 13

Item I = {11, 12, 13, 14, 15}

Let the number of item in the whole transaction is $\geq$2 then it is a frequent item.
The table showing the relation between items and transactions are follows.

	11	12	13	14	15
T_1	1	1			1
T_2		1		1	
T_3		1	1		
T_4	1	1		1	
T_5	1		1		
T_6		1	1		
T_7	1		1		
T_8	1	1	1		1
T_9	1	1	1		

For stage 1 we search for single set frequent items.

Items	$\sum_{J=1}^{k} pj(x_i)$
11	6
12	7
13	6
14	2
15	2

Here all items satisfy the minimum threshold. Therefore the frequent item from stage 1 is 11, 12, 13, 14 and 15. The second stage is to find the frequent item sets with two elements.

	11	12	13	14	15
11	-	4	4	1	2
12	4	-	4	2	2
13	4	4	-	0	1
14	1	2	0	-	0
15	2	2	1	0	-

Here the item set satisfy the condition $\sum_{j=1}^{k} p_j (x_{1i})\, p_j (x_{1k} / x_{1i}) \geq 2$ are
{{11, 12} {11, 13} {11,15}{12,13} {12, 14} {12, 15}.}
In the third stage is for finding frequent item set with three elements.

	11	12	13	14	15
{11, 12}	-	-	2	1	2
{11, 13}	-	2	-	0	1
{11, 15}	-	2	1	0	-
{12, 13)	2	-	-	0	1
{12, 14}	1	-	0	-	0
{12, 15)	2	-	1	0	-

Here the item set satisfies the condition $\sum_{J=1}^{k} p_j (x_{2q}) p_j (x_{2r}, x_{2s}/x_{2q}) \geq 2$ are {11, 12, 13} and

{11, 12, 15}.

Now for stage four is to find frequent item sets containing four elements.

	11	12	13	14	15
{11, 12,13}	-	-	-	0	1
{11, 12, 15}	-	-	1	0	-

Here no item sets satisfies the minimum threshold condition. Therefore there does not exist frequent set containing four elements. Therefore maximum number of elements in the frequent item set is three and they are {11, 12, 13}, {11, 12, 15).

CONCLUSION

Determining frequent item sets is one of the most important field of mining. It is well known that the way of candidates are defined has great effect on running time and memory need and this is the reason for the large number of algorithms. Here presented a new research trend on frequent mining using dynamic programming. Dynamic programming is a simplest method in operation research. The concept of DP has been extended to infinitely multi stage cases also.

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PRICE AND LIQUIDITY CHANGES AFTER STOCK SPLITS - EMPIRICAL EVIDENCE FROM INDIAN STOCK MARKET

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ABSTRACT

Stock splits are a relatively new phenomenon in the Indian context. This paper examines the market effect of stock splits on stock price, return, volatility, and trading volume around the split ex-dates for a sample of stock splits undertaken in the Indian stock market over the period 2000 to 2010.The traditional view of stock splits as cosmetic transactions that simply divide the same pie into more slices is inconsistent with the significant wealth effect associated with the announcement of a stock split. The empirical evidence suggests that there is no clear evidence about positive wealth effect associated with stock split available from Indian markets, particularly S&P Nifty. However there is a clear evidence of significant improvement in traded volume (turnover) associated with stock split surrounding announcement day. Though this is inconsistent with the theory that suggests if any liquidity gains are associated with stock split it should be reflected on announcement date itself, it supports other studies conducted on Indian markets.

KEYWORDS

Liquidity, Stock market, Stock Price, Stock Split.

INTRODUCTION

Stock splits are a relatively new phenomenon in the Indian context. It is a corporate action in which a company's existing shares are divided into multiple shares. Although the number of shares outstanding increases by a specific multiple, the total value of the shares remains the same compared to pre-split amounts, because no real value has been added as a result of the split.

With the boom in the stock markets, promoters are working hard to add to the liquidity in their stocks through stock splits. The interest in stock splits is motivated by the fact that this event is not directly related to changes in the operating or financial structure of the firm and therefore, should cause no change in price other than the adjustment warranted by the split factor. There should also be no change in distribution of stock returns around execution dates of stock splits. Yet, significant positive abnormal returns and increase in volumes of trade have been documented around stock split announcements as well as execution days. Fama (1969), Lakonishok and Lev (1987), Desai and Jain report that splitting firms experience positive excess returns after the announcement of the stock splits. Significant positive abnormal returns around the announcement and execution day have been also reported from several markets. Mayank Joshipura (2008) report that price effect associated with stock split is not significant and though there is a significant positive abnormal return of 1.08% and 1.66% found on announcement and effective day respectively it did not sustain and got reversed in less than a week's time; hence he found that no clear evidence about positive wealth effect associated with stock split available from Indian markets. A. K. Mishra (2007) reported that the stock prices and return reduced significantly after splitting.

The number of trades per day has been found to increase following stock splits. Maloney and Mulherin prove that a split has a positive effect on the volume by finding higher dollar volume and more trades after stock splits. Moreover, Lakonishok and Lev (1987) found an increase in the number of shares traded as a percentage of the outstanding shares following stock splits. Lakonishok and Lev (1987) found that the positive effect on liquidity is only temporary. Mayank Joshipura (2008) found that there is a significant improvement in traded volume (turnover) associated with stock split both surrounding announcement and effective day. Mayank Joshipura (2008) proved that stock split leads to improvement in liquidity but does not carry any positive wealth effect. A. K. Mishra (2007) found that the stock prices and return reduced significantly after splitting and that the stock volatility and volume increase significantly. A. K. Mishra (2007) suggest that stock splits have induced brokers to revise their optimistic valuation about the firm's future performance and that stock splits have reduced the wealth of shareholders.

Splits do, however, achieve the managerial objective of an increase in the number of shareholders. Baker and Gallagher suggest that a stock split may change the composition of the ownership structure as the number of small shareholders increases after the split, even though Mukherji found no evidence of any change in the ownership structure after stock split. Some of the empirical research finds clear evidence that institutional ownership increases, rather than decreases, after splits.

The above conflicting empirical findings needs to be investigated further with reference to India, keeping in view that there have been several stock splits in recent times. Before 1999, splits were an occasional feature in the Indian capital market. The existence of a mandatory minimum par value inhibited many companies from splitting their stocks. It was felt that varied face values of scrips confused investors, especially with some companies changing the face value of their scrips repeatedly. Things changed in March 1999 when the Securities and Exchange Board of India (SEBI) allowed companies to set the face value of their shares, as long as it was not fractional. The SEBI ruling superseded a 1993 government circular banning companies from issuing shares at face values other than Rs 10 or Rs 100. This move enabled many companies to split their stocks. Hence, it is now left to the companies to choose the face or par value of the shares. Moreover, from the beginning of year 2005 due to big upward movement in Indian stock markets and price of some of the companies have gone far away from normal tradable range. Many of the companies at difference instance found it appropriate to go for stock split and to bring down the price back to the tradable range.

These recent changes in the India's financial environment offer a unique opportunity to gain further insight into the stock splits with reference to their effects on variables like stock prices and trading volume. With liberalization and globalization, the importance of understanding these stock events has increased dramatically. Apart from that in comparison to the world's major stock exchanges, there are proportionally more small firms listed on Indian exchanges and most of them are thinly traded. Hence, these differences between Global and Indian markets necessitate studying split events in India. This paper analyzes the effects of stock split on price and liquidity around the split announcement dates for a sample of stock splits under S & P Nifty.

LITERATURE REVIEW

First company to declare stock dividends was the East India Company, which, while enjoying great prosperity, declared in 1682 a stock dividend of one hundred percent. Whereas, stock splits became quite common in the beginning of nineteenth century. Around 150 stocks had been split once or more between 1921 and 1930, among 837 listed on the New York Stock Exchange as of December 31, 1930. Some of the stock splits in the beginning are IBM's 3 for 1 stock split on February 16, 1926, Edison International's 4 for 1 stock split on April 1st, 1926, Caterpillar in 1926, Texaco in 1928, etc. It has been found that stock splits have picked up in a big way in India from the beginning of 21st century and especially from the beginning of year 2005. This was the result of big upward movement in Indian stock markets and share price of some of the companies have gone far away from normal tradable range. Many of the companies at difference instance found it appropriate to go for stock split and to bring down the price back to the tradable range. However this may not be the only objective to go for a stock split as suggested by neglected firm hypothesis and signaling hypothesis which is mentioned in the later part of this section.

Stock split is a corporate action in which a company's existing shares are divided into multiple shares. Although the number of shares outstanding increases by a specific multiple, the total dollar value of the shares remains the same compared to pre-split amounts, because no real value has been added as a result of the split. For example, in a 2-for-1 split, each stockholder receives an additional share for each share he or she holds. In the U.K., a stock split is referred to as a scrip issue, bonus issue, capitalization issue or free issue.

The following hypotheses developed in the finance literature are used to explain price and liquidity effects of stock split in Indian Stock Market.

Stock splits are executed by firms that have enjoyed an unusual growth in earnings and stock prices. The main objective of the split appears to be the return of the stock price to a normal range in wake of the unusual growth period. The targeted price is a function of a market-wide average price, an industry-wide average price, and a firm-specific price. The *Optimal trading range* hypothesis suggests that there is an optimal trading range and that splits realign pre-split share prices into this range. Baker and Gallagher and Baker and Powell (1993) indicate that managers' primary motive for carrying out stock splits is to move the stock price into an optimal trading range. Lakonishok and Lev (1987) found that reduction of the stock price to a reasonable level is a major motivation for stock splits, supporting the trading range hypothesis. The reduction in trading price through stock splits enables the post-split shares to become attractive to more investors, which leads to increase in demand and thus generates abnormal positive return.

Lower priced stocks draw more investors and generate greater trading volume, thus enhancing marketability and reducing the bid–ask spread. The *Liquidity-improvement hypothesis* was identified by Dolly. Realigning share price could draw more attention to a stock and hence increase the liquidity of the stock. Muscarella and Vetsuypens (1996) proved that liquidity after the split improves which is accompanied by wealth gains to investors which supports the liquidity hypothesis. Baker and Powell find that managers view liquidity improvements by making the ownership base broader second only in importance to the trading range hypothesis. Lakonishok and Lev (1987) reported liquidity as the major motive for stock splits.

The *signaling hypothesis* indicates that Stock split is one of the ways to give signal about the future growth of the company. It indicates that stock splits convey managers' favourable private information about the firm's future earnings and the cash dividend prospects to investors. Bhattacharya suggest that managers possess more information than investors and have an incentive to convey favourable information to investors. Lakonishok and Lev (1987) proved that firms that split their shares have a higher short-term earnings growth than firms that do not. Brennan and Copeland (1988) suggest that since lower-priced stocks have higher percentage transaction costs, the increase in the number of shares resulting from a split is a costly signal of its value. Brennan and Copeland (1988) suggest that since lower-priced stocks have higher percentage transaction costs, the increase in the number of shares resulting from a split is a costly signal of its value. Brennan and Hughes (1991) observed an inverse relationship between the stock price and the number of analysts following a firm, and conclude that managers carry out stock splits to attract the attention of analysts.

The *Neglected firms hypothesis* suggests that Stock split is the way of catching attention of the market by a firm which feels that they are undervalued in market players because of the negligence of the market participants, which means if there is little known about a firm its shares trade at a discount. Arbel and Swanson (1993) suggest that firms use the split to draw attention to ensure that information about the company is widely recognized than before.

In the study conducted by Mayank Joshipura, 5 years (Split Date between June 2002 to June 2007) have been taken from a sample frame of S & P CNX 500, it being India's first broad-based benchmark of the Indian capital market. The S&P CNX 500 represents about 92.66% of total market capitalization and about 86.44% of the total turnover on the NSE and covers 72 industries. Stock split data was taken from nseindia.com, Capital line and CMIE's Prowess database. A.K Mishra (2007) used CMIE's Prowess database and conducted the research on firms listed on the Bombay Stock Exchange (BSE) and used data from 1999–2005. A.K Mishra (2007) reported that the largest number of stock splits occurred during the year 2005 when the Indian stock market was passing from the boom period. Splitting firms chosen from BSE represent a broad cross-section of industries, indicating that stock splits are not specific to a small set of industries.

The following companies were omitted from both the studies.

- The companies for which stock split coincide with other events like stock dividend, right issue, De-merger announcement etc (within five days of the stock split ED for A.K.Mishra).
- Companies for which data on announcement date is not available with accuracy.
- The splitting firms which does not have financial information available from the Prowess database.

Mayank Joshipura chose 102 day window(ED+51, ED-51) as small investors can only participate after spilt becomes effective, hence it can be seen that significant improvement in liquidity along with abnormal positive return due to substantial demand from number of small investors from ED to about ED+2 days as the stock becomes more affordable. To check the return sustainability the window was been extended to 51 days and reversing of abnormal return was reported thereon. On the other hand, 120 days window was chosen by A.K Mishra (ED+60, ED-60).

This paper analyzes the effects of a stock split on price and liquidity around the split announcement dates for a sample of stock splits under S & P Nifty. Till now not much research has been conducted on this index. The Nifty is a well diversified 50 stock index accounting for 23 sectors of the economy. The changes in prices and trading volume of the stock are examined for the 30 day window (i.e., 15 days before and the 15 days after) around the split announcement dates in this study. The window was limited so that the short term returns due to the stock split can be measured accurately. The years taken into consideration are from 2005 to 2010, 2005 being the year of market boom and lot of stock splits.From the beginning of year 2005 due to big upward movement in Indian stock markets, price of some of the companies have gone far away from normal tradable range. Many of the companies at difference instance found it appropriate to go for stock split and to bring down the price back to the tradable range. These recent changes in the India's financial environment offer a unique opportunity to gain an insight into the stock splits with reference to their effects on trading volume and price. With liberalization and globalization, the importance of understanding these stock events has increased dramatically. Apart from that in comparison to the world's major stock exchanges, there are proportionally more small firms listed on Indian exchanges and most of them are thinly traded. Hence, these differences between Global and Indian markets necessitate studying split events in India. Moreover, no immense study was conducted regarding stock split on S&P Nifty.

Several studies have been conducted on the foreign markets regarding the effects of stock split and different findings are observed, some of them are mentioned in the literature review section. But, only few studies are conducted with respect to the Indian markets. The effects of stock splits in Indian markets particularly S & P nifty is not known. So investments in equities with regard to stock split are risky. This study tries to identify the impact of stock split on price and liquidity with respect to S & P Nifty. The study has been conducted to check the presence of any abnormal returns surrounding split announcement and also to identify the effect of stock split on trading volume.

HYPOTHESIS

H1: There are no excess returns present in the pre-announcement window

Positive excess return present in the pre-announcement (AD-15 to AD-1) window suggests that there is leakage of information in the market about the split by company before its official announcement and role of insiders in the market.

H2: There are no excess returns present in the post announcement window

If the stock split announcement is considered as a positive announcement by the company as argued under signaling hypothesis significant positive excess return must be present in the post announcement window which is taken as (AD+1 to AD+15).

H3: There is no excess volume on the announcement day

As suggested by neglected firm hypothesis, the announcement of split may be used as an attention grabber measure and if that works the activity in the stock should increase and volumes should improve considerably along with positive abnormal return.

Out of the 28 companies which have undergone stock split during the period 2000 to 2010, 5 companies were eliminated by applying the following criteria.

a.) The companies for which stock split coincide with other events like stock dividend, right issue, De-merger announcement etc

b.) Companies for which data on announcement date is not available with accuracy.

c.) The splitting firms which does not have financial information available from the Prowess database.

To perform the analysis, first, we need to identify the event date and the event window that is the period over which the security returns will be examined. The event date is the announcement date (AD), which is the moment at which the split gets announced in the Annual General meeting. In order to draw overall inferences for the event of interest, the abnormal return observations are aggregated along two dimensions – through time and across securities. Time dimension comprises of 31 days (AD-15 to AD + 15) and 23 securities are considered.

The following measures are used in the study for the calculation.

TODAY'S SECURITY RETURN (SR)

SR is the return of the security for the day in comparison with the previous day.

$$SR = \frac{(Today's\ stock\ closing\ price - Yesterdays\ closing\ price)}{Yesterdays\ closing\ price}$$

TODAY'S MARKET RETURN (MR)

MR is the return of the market for the day in comparison with the previous day.

$$MR = \frac{(Today's\ market\ closing\ price - Yesterdays\ market\ closing\ price)}{Yesterdays\ market\ closing\ price}$$

ABNORMAL RETURN (AR)

AR gives the abnormal return for the day.

$$AR = SR - MR$$

MEAN ABNORMAL RETURN (MAR)

MAR is the average of abnormal returns across the N firms on a day t.

$$MAR_t - \frac{1}{N}\sum_{1}^{N} AR$$

CUMULATIVE MEAN ABNORMAL RETURN (CMAR)

CMAR is the cumulative sum of stock i's prediction error (abnormal returns) over the window (t1, t2)

$$CMAR_i = \sum_{t1}^{t2} MAR$$

EFFECT ON TRADING VOLUME

To explore whether the trading activity changes when a stock split takes place volumes adjusted for market volumes are examined around the event day. Past studies used different measures to examine abnormal trading volumes around the event dates. Harris and Gurel's (1986) metric takes account of market volume and the individual security's volume. In this study we adopt a similar method. The effect on trading volume is calculated.

$$VR_{i,t} = \frac{V_{it} / V_i}{(V_{mt} / V_m)}$$

Where,

$VR_{i,t}$ – volume ratio of stock i on day t

V_{it} - daily share volume of the stock i

V_i - mean trading volume of stock i

V_{mt} – daily share volume of the market in the estimation period

V_m – mean of NSE trading volume in the estimation period

TABLE 1: PRICE EFFECT ASSOCIATED WITH STOCK SPLIT

AD	MAR	Cumulative MAR
AD-15	-0.03381	-0.033810499
AD-14	-0.43433	-0.468138288
AD-13	-0.54997	-1.018105505
AD-12	0.126739	-0.891366295
AD-11	0.550973	-0.340393618
AD-10	-0.03134	-0.371734202
AD-9	-0.15069	-0.522423367
AD-8	0.11938	-0.403043665
AD-7	-0.47998	-0.883021098
AD-6	-0.2468	-1.129824204
AD-5	0.632036	-0.497787792
AD-4	-0.30796	-0.805743633
AD-3	0.320296	-0.485447425
AD-2	0.073535	-0.411912359
AD-1	0.152741	-0.259171469
AD	0.574859	0.315687047
AD+1	-1.83508	-1.519394606
AD+2	-0.09116	-1.610552068
AD+3	0.86201	-0.748542381
AD+4	0.234041	-0.514501384
AD+5	0.226675	-0.287826496
AD+6	-2.24018	-2.528009145
AD+7	-2.72373	-5.251739664
AD+8	-0.35095	-5.602688064
AD+9	-0.20752	-5.810208276
AD+10	-0.03671	-5.846913833
AD+11	-0.87843	-6.725344645
AD+12	-0.07091	-6.796258895
AD+13	0.071677	-6.724581549
AD+14	0.599697	-6.124884366
AD+15	-0.21482	-6.339703419

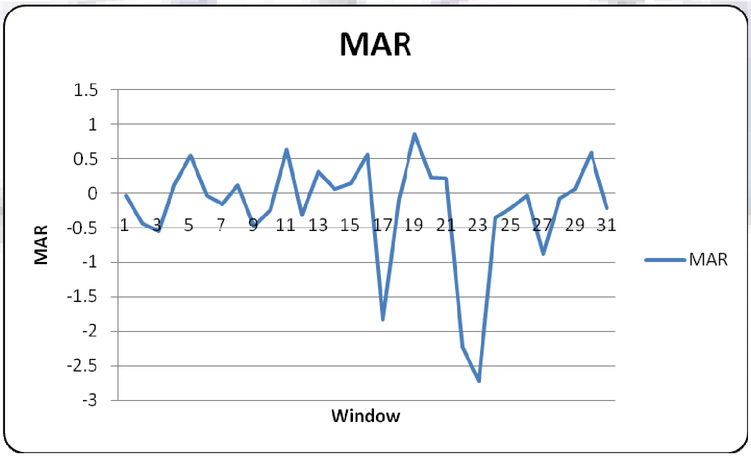
Source: Nifty

Table 1 shows the mean average return and CMAR during the AD-15 to AD + 15 window. Table 1 reports the returns price effects surrounding announcement date of stock split and it can be noticed that the excess return of 0.315% is found. It is found that out of total 23 firms only 8 have shown positive abnormal return on the announcement day which does not make it statistically significant and that actually dilutes the significance of the presence of positive abnormal return on announcement day. Several authors (Grinblatt, Masulis and Titman (1984), Brennan and Copeland (1988), Brennan and Hughes (1991) and Muscarella and Vetsuypens (1996) hypothesize that firms signal information about their future earnings through their split announcement decision have shown that there is a significantly positive abnormal return at the announcement of a stock split.

One hypothesis for the positive abnormal return is that a split may be interpreted as a signal that the firm's managers are optimistic regarding its future prospects. A second hypothesis is that a split may improve the stock's liquidity and, in turn, lower its expected return. But results found in Indian contest during this study doesn't provide any conclusive evidence about positive abnormal return associated with announcement of stock split which also discards signaling hypothesis and neglected firm hypothesis presented in literature review section.

Ideally as in efficient market any information content associated with stock split should be absorbed in price movement on announcement day and it should not lead to any positive abnormal return on the effective day. The graph shown below shows the relation between MAR and the AD window.

FIG 1: GRAPH DEPICTING RELATIONSHIP BETWEEN MAR AND AD WINDOW



As shown in table 2, the trading volume has shot up quite significantly in comparison to the pre announcement window on the announcement day. Volume ratio of 1.31 is found especially on the announcement day. Not only that volume ratios remains at considerable higher than one in the entire announcement day window. This is clearly found in the Fig 2.

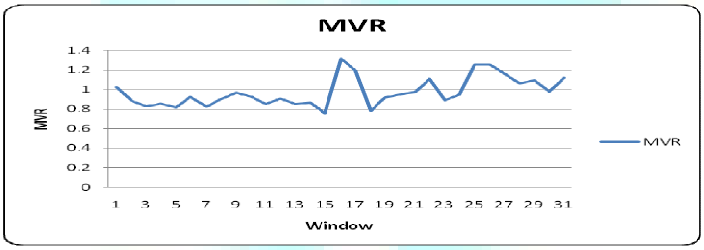
TABLE 2: TRADING VOLUME EFFECTS OF STOCK SPLIT

	MVR
AD-15	1.025775
AD-14	0.888132
AD-13	0.827243
AD-12	0.854091
AD-11	0.819034
AD-10	0.926952
AD-9	0.82535
AD-8	0.904509
AD-7	0.967221
AD-6	0.932656
AD-5	0.850642
AD-4	0.910774
AD-3	0.851082
AD-2	0.866263
AD-1	0.754471
AD	1.315046
AD+1	1.196982
AD+2	0.782541
AD+3	0.918956
AD+4	0.952447
AD+5	0.975451
AD+6	1.112956
AD+7	0.894315
AD+8	0.947179
AD+9	1.256059
AD+10	1.255636
AD+11	1.160767
AD+12	1.066789
AD+13	1.096869
AD+14	0.977086
AD+15	1.120627

Source: Nifty

This increase in liquidity is consistent with findings of Muscarella and Vetsuypens (1996), Amihud and Mendelson (1986), and Christian Wulff (2002) but still quite different because in all of these the increase in liquidity is associated with positive wealth effect where is in this research done for Indian market does not provide any empirical evidence to positive wealth effect associated with stock split. This is in support of findings by Mayank Joshipura and A.K Mishra, research conducted on Indian market.

FIG 2: GRAPH DEPICTING RELATIONSHIP BETWEEN MVR AND AD WINDOW



To conclude the analysis in terms of acceptance or rejection of the hypothesis we framed for the study we can say that H1 is accepted and hence shows the absence of excess return in the pre - announcement window but this claim gets diluted as it's not supplemented by non parametric sign test. H2 is also accepted. There is a chance for some leakage of information about split announcement prior to the formal announcement. This is quite possible as there is a time lag between the information provided by the board of directors to the exchange about their considering split proposal and formally approving split which actually is the announcement day but market may react on agenda and not the outcome. H3 is rejected as there is a hugely significant abnormal volumes measured by MVR observed on announcement day of the stock split.

From the study, it can be concluded that price effect associated with stock split is not significant and though there is a significant positive abnormal return of 0.315% found on announcement day it did not sustain and got reversed in less than a week's time Hence, there is no clear evidence about positive wealth effect associated with stock split available from Indian markets, particularly S&P Nifty. However there is a clear evidence of significant improvement in traded volume (turnover) associated with stock split surrounding announcement day. Though this is inconsistent with the theory because if any liquidity gains are associated with stock split it should be reflected on announcement date itself, it supports other studies conducted on Indian markets. To conclude, stock split leads to improvement in liquidity but does not carry any positive wealth effect.

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THE IMPACT OF REVERSE CULTURAL SHOCK AMONG REPATRIATES

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ABSTRACT

With the pressure of globalization, international job mobility is becoming a more common experience for a growing number of employees. It is critical for Multinational organizations to remain competitive in the area of international human resource development and management. Of all the Phases in IHRM, the last phase of repatriation is considered to be the most difficult one. If repatriates are not dealt with properly during the re-entry process, companies may have to incur huge losses, despite the fact that huge investment are made in various resources like money, time, training & development etc. in sending the employees on International Assignments. This paper focuses on the issues to be dealt after repatriation. In reviewing international human management studies, much attention is given to the process of expatriation; whereas less attention is given to repatriation. The Multinational organizations always assume that the re-entry to the parent country is non-problematic. However, research indicates that repatriation can be more difficult adjustment than expatriation. Thus, the main aim of this paper is to explore the impact of reverse cultural shock among repatriates after International Assignment. The study collected data from 50 respondents through questionnaire which had questions on a five point scale. Six hypotheses were framed and tested using ANOVA and Chi-square. Percentage Analysis was done for demographic factors like age, income, education, marital status, experience in the organization, duration of the international assignment etc. The study concluded that the MNC's have to identify right strategies to retain repatriates after international assignments.

KEYWORDS

International Assignment, Repatriates, Repatriation, Reverse cultural shock.

INTRODUCTION

The increasing globalization liberalization policies led to the promotion of international of companies. During internalization of companies, HRM is considered to be one of the crucial areas is to be handled carefully. (Brewster & Scullion 1997, Stroh & Caligiuri 1998, Scullion & Starkey 2000). One such challenge of IHRM is to establish proper HR practices for selection of expatriate, managing expatriate, providing cross-cultural training for expatriate, providing allowance for expatriate and the last is managing repatriate. Lisa Johnson, GPHR director of consulting services for Cendant Mobility argues "Most companies are failing at repatriation." A 2004 survey by Cendant Mobility "Emerging Trends in Global Mobility Policy and Practices survey, says "Only 49% of companies have repatriation programs." There are very few studies that analyze the final phase in expatriate process, the repatriation, despite the fact it is one of the most significant phase. The costs involved in recruitment, selection of expatriate is high. Hence, when the repatriation process ends in failure, the company loses the investment made on the expatriate in addition to the knowledge they acquired (Bossard & Peterson 2005).

Given the fact that 25% of repatriates leave parent company within one year of coming home and more than 50% of the executives in a survey of US corporations said they experienced social re-entry problems upon repatriation, returning home can be hazardous to the organizations. Repatriates usually face difficulties like loss of autonomy, lack of career development, family readjustment problems. As a consequence, retaining repatriates within the company is very important in order to reduce costs & increase the companies' competitiveness. The main purpose of this study is to analyze the effect of repatriate turnover with the repatriation process and to identify the main determinants of successful repatriation.

PROBLEM DEFINITION

Successful repatriation means that the repatriate acquires good career and personal development after international assignment experience. But this does not happen to all repatriates after international assignment. According to Geodesy survey, 33% of repatriates are promoted, 58% of repatriates stay at the same level, 9% demoted after returning from international assignment. Further, when the repatriates return to the home country, there is a general assumption that the repatriate will be able to settle quickly into the community. But, this does not happen and many repatriates face re-entry shock or reverse cultural shock. Individual expectations before repatriation, during expatriation and after repatriation do not match the organizations' expectation in terms of position, level of income et,. This lack of understanding to integrate repatriates into the organization in terms of the knowledge and experience they gained during international assignment is a factor that often leads many repatriates to quit the organization. Thus, the problem identified for this study is the impact of reverse cultural shock and repatriates difficulty in adjusting after an international assignment.

DEFINITION

a. **Expatriate:** "One who works and lives in a foreign country but remains a citizen of the country where the employing organization is head quartered" (Deresky, 2003, P.551)
b. **Repatriation:** "The process of the reintegration of an expatriate into the Headquarters organization and career ladder as well as into the social environment." (Deresky, 2003, P.551)
c. **MNC's:** Enterprise operating in several countries but managed from one (home) country.
d. **Reverse Cultural Shock**: Reverse Culture Shock, or "re-entry", is a term associated with the phenomenon of returning to one's own country and culture.

LITERATURE REVIEW

Researches on repatriation found that the culture shock of coming home is usually more difficult than the culture shock of going overseas (Adler, 1981; Black, Gregersen, Mendenhall &Stroh, 1999). Poor repatriation is costly, reduces the effective utilization of human resources, and often leads to a loss of talented personnel (Adler, 1991; Black & Gregersen 1991, Black & Gregersen & Mendenhall 1992). Furthermore, poor repatriation could possibly represent the number one reason for employee hesitancy to accept overseas assignments (Feldman & Tompson, 1993).

CROSS-CULTURAL ADJUSTMENT

The concept of "cross-cultural adjustment" began with earlier work on culture shock. The term Culture shock was introduced by an anthropologist, Dr. Kalervo Oberg (1960), to describe the trauma suffered by people when they are suddenly introduced to a culture that is very different from their own. In 1988, Befus described culture shock as "an adjustment reaction syndrome caused by cumulative, multiple and interactive stress in the intellectual, behavioral, emotional and physiological levels of a person recently relocated to an unfamiliar culture and is characterized by a variety of symptoms of psychological shock. Oberg (1960) described four stages of adjustment.

A. U-CURVE THEORY OF ADJUSTMENT:

This theory represents the emotional stages of adjustment. It is divided into 4 stages

I. HONEYMOON PHASE

It is the period where expatriates will have initial enthusiasm to interact with host nationals. It is a period lasting less than 2 months (Adler, 1986; Black and Gregersen, 1991; Gullahorn, 1962; Harris Moran, 1979; Torbiorn, 1982).

II. CULTURE SHOCK

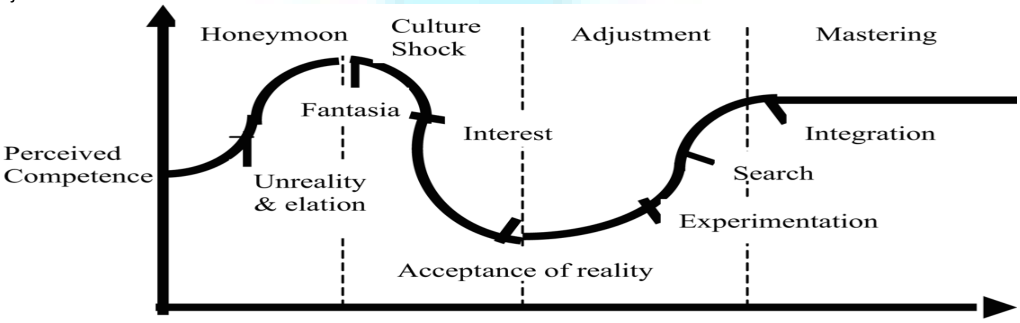
Here, the individual have to cope up with the new culture on a day-day basis. In this stage, individual lacks understanding the culture inhibits awareness of what is appropriate or inappropriate, behavior in the new cultural environment, resulting in confusion, frustration, tension and depression (Adler, 1986; Black and Gregersen, 1991; brisling, 1981).

III. ADJUSTMENT PHASE

It is characterized by increased ability to 'fit in' in the new culture.

IV. MASTERY PHASE

Here, adjustment is almost complete as possible, and anxiety is over. In short, individuals deputed on an international assignment first feel excited, then face problems and finally adjust over time to the new socio-cultural environment.

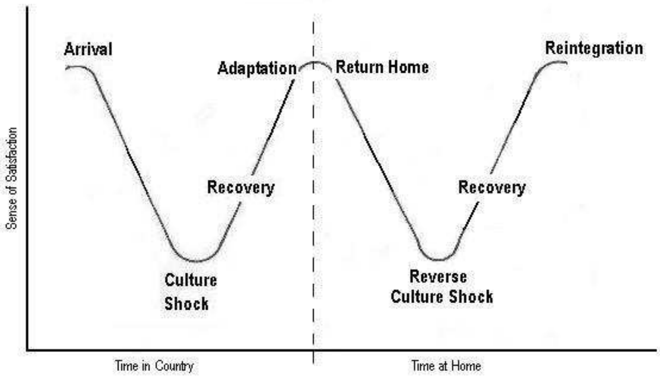


Source: by the authors drawing from the literature reviewed

Subsequently, researchers found that not all sojourners experience the same level of anxiety, or experience anxiety for the same length of time (Church, 1982; Stening, 1979). This resulted in the study of cross-cultural adjustment as an individual difference criterion, which could potentially be predicted, rather than as a fixed period of anxiety that all sojourners will necessarily experience when they enter a new culture (Black, 1990).

A. W-CURVE THEORY OF ADJUSTMENT

Gullahorn & Gullahorn (1963) argue that the cross-cultural adjustment process which led to a U-Curve can be applied to repatriation process as well. Harvey argues that the longer one spends away from home; more changes can happen in home country. This leads to greater uncertainty upon return. The literature review of culture shock indicates that an individual may not function effectively during the period of cross-cultural adjustment.



REPATRIATION ADJUSTMENT

Repatriation adjustment issues were identified in the literature in the 1950s and 1960s (Gullahorn & Gullahorn, 1963). Adler (1981), discovered that "employees found reentry into their home country and home company more difficult than the initial move to the foreign culture." Once the individual returns to the home country, the process of in-country repatriation adjustment begins.

Black, Gregersen and Mendenhall (1992) state that the two most affected work areas of repatriation adjustment are performance and turnover. Based on their research, they found that failing to pay attention to repatriation adjustment may lead to low intention to stay with the firm. (Black et al.,1999).

RESEARCH METHODOLOGY

The study investigated the impact of reverse cultural shock on repatriation adjustment. The survey was sent to 75 repatriates. 50 Repatriates had responded to a mail survey. IT Industry, ITES, OIL & GAS, BANKING industries constituted this survey. The collected data were encoded so that it was possible to analyze the data which was done by Mail Survey. The repatriates represented many industries, held various positions of different levels, had varied backgrounds regarding their education, experiences and the time periods of their assignments. They were of different ages, marital status, gender who were assigned to different countries. Items in the survey measured the reverse cultural shock, cross-cultural training, language training, relocation support, which was provided by the company.

REPATRIATES – FREQUENCY DISTRIBUTION

CLASSIFICATION OF RESPONDENTS BASED ON AGE

TABLE NO.1.1

	Frequency	Valid Percent	Cumulative Percent
<25 yrs	7	14.0	14.0
25-35	34	68.0	82.0
36-45	8	16.0	98.0
>45 yrs	1	2.0	100.0
Total	50	100.0	

Source: Questionnaire

From table 1.1, it is found the distribution of respondents belonging to the age group of below 25 years as 7 respondents occupying 14% followed by 34 respondents occupying 68% in the age group of 25-35. 8 respondents occupying 16% from the age group between 36-45 and 1 respondent constituting 2% in the age above 45 years.

CLASSIFICATION OF RESPONDENTS BASED ON GENDER

TABLE NO.1.2

	Frequency	Valid Percent	Cumulative Percent
Male	47	94.0	94.0
Female	3	6.0	100.0
Total	50	100.0	

Source: Questionnaire

The distribution of sample respondents according to gender is shown in table No.1.2. It reveals out of the total 50 respondents 3 are Female occupying 6% and 47 in Male category occupying 94%. It is clear that the majority of the respondents are male.

CLASSIFICATION OF RESPONDENTS BASED ON MARITAL STATUS

TABLE NO.1.3

	Frequency	Valid Percent	Cumulative Percent
Single	17	34.0	34.0
Married	33	66.0	100.0
Total	50	100.0	

Source: Questionnaire

From table No.1.3, it reveals that 33 respondents occupying 66% belongs to the married category and 17 respondents possessing 34% belongs to single category.

CLASSIFICATION OF RESPONDENTS BASED ON INCOME LEVEL

TABLE NO.1.4

	Frequency	Valid Percent	Cumulative Percent
<15,000	2	4.0	4.0
15,001-25,000	6	12.0	16.0
25,001-35,000	6	12.0	28.0
>35,000	36	72.0	100.0
Total	50	100.0	

Source: Questionnaire

Table No.1.4 divulges the number of respondents on the basis of their respective income levels, 2 respondents occupying 4% belongs to the category of income below 15,000. This is followed by 6 respondents (12.0%) belonging to the income group of 15,001-25,000. This is followed by 6 respondents (12.0%) belonging to the income group of 25,001-35,000. This is followed by 36 respondents occupying 72% belongs to the category of income above 35,000.

CLASSIFICATION OF RESPONDENTS BASED ON EDUCATIONAL BACKGROUND

TABLE NO.1.5

	Frequency	Valid Percent	Cumulative Percent
MBA	11	22.0	22.0
MBA*	2	4.0	26.0
MCA	6	12.0	38.0
ME	3	6.0	44.0
N/A	27	54.0	98.0
PGDM	1	2.0	100.0
Total	50	100.0	

Source: Questionnaire

The table No.1.5 exposes the number of respondents on the basis of educational background. The study has considered 50 respondents consisting 22% with M.B.A qualification, 2 respondents occupying 4% with M.B.A in progress, followed by 6 respondents with 12% completed MCA, 3 respondents with 6% with M.E Degree, 27 respondents consisting 54% responded as not applicable, 1 respondent consisting 2% completed PGDM

CLASSIFICATION OF RESPONDENTS BASED ON DURATION OF THE INTERNATIONAL ASSIGNMENT

TABLE NO.1.6

	Frequency	Valid Percent	Cumulative Percent
Below 6Mths	30	60.0	60.0
6 Mths – 1 yr	7	14.0	74.0
1+ to 2 yrs	7	14.0	88.0
2+ to3 yrs	3	6.0	94.0
Above 3 yrs	3	6.0	100.0
Total	50	100.0	

Source: Questionnaire

From table 1.6, it is found the distribution of respondents based on duration of the international assignment. 30 respondents comprising of 60% had deputed for International Assignment below 6 months, 7 respondents comprising of 14% had deputed for International Assignment for a period of 6 months to 1 yr, 7 respondents comprising 14% had deputed for international assignment for a period of 1+ to 2 yrs, 3 respondents comprising of 6% had deputed for international assignment for a period of 2+ to 3 yrs, 3 respondents comprising of 6% had deputed for international assignment for a period of above 3 yrs.

CLASSIFICATION OF RESPONDENTS BASED ON THE TOTAL YEARS OF EXPERIENCE IN THE ORGANIZATION

TABLE NO.1.7

	Frequency	Valid Percent	Cumulative Percent
<2 yrs	9	18.0	18.0
2 to 4 years	8	16.0	34.0
4+ to 6 years	14	28.0	62.0
6+ to8 yrs	2	4.0	66.0
>8 Yrs	17	34.0	100.0
Total	50	100.0	

Source: Questionnaire

From table 1.7, it is clear that 9 respondents occupying 18% has been working below 2 years, 8 respondents constituting 16% of the respondents has been working between 2-4 years, 14 respondents forming 28% has been working between 4+to 6 years and 2 respondents occupying 4% has been working between 6+ to 8 years, 17 respondents constituting 34% has been working above 8 years.

CLASSIFICATION OF RESPONDENTS BASED ON THE COUNTRIES DEPUTED FOR INTERNATIONAL ASSIGNMENT

TABLE NO.1.8

	Frequency	Valid Percent	Cumulative Percent
Switzerland	13	15.5	15.5
Germany	11	13.1	28.6
England	4	4.8	33.3
UK	23	27.4	60.7
UAE	3	3.6	64.3
Malaysia	1	1.2	65.5
Denmark	2	2.4	67.9
U.S.A	23	27.4	95.2
Australia	2	2.4	97.6
Finland	2	2.4	100.0
Total	84	100.0	

Source: Questionnaire

From table 1.8, it is clear that 13 respondents occupying 15.5% were deputed to Switzerland, 11 respondents constituting 13.1% of the respondents were deputed to Germany, 4 respondents occupying 4.8% were deputed to England, 23 respondents occupying 27.4% were deputed to UK, 3 respondents occupying 3.6% were deputed to UAE, 1 respondent occupying 1.2% was deputed to Malaysia, 2 respondents occupying 2.4% were deputed to Denmark, 23 respondents occupying 27.4% were deputed to U.S.A, 2 respondents occupying 2.4% were deputed to Australia, 2 respondents occupying 2.4% were deputed to Finland.

CLASSIFICATION OF RESPONDENTS BASED ON THE RESPONDENTS PREVIOUS INTERNATIONAL ASSIGNMENT EXPERIENCE

TABLE NO.1.9

	Frequency	Valid Percent	Cumulative Percent
1	9	18.0	18.0
2	6	12.0	30.0
3	1	2.0	32.0
5	1	2.0	34.0
none	33	66.0	100.0
Total	50	100.0	

Source: Questionnaire

From table 1.9, it is clear that 9 respondents occupying 18% were deputed on international assignment by the previous company once, while 6 respondents occupying 12% were deputed on international assignment by the previous company twice, 1 respondent occupying 2% was deputed on international assignment by the previous company 3 times, 1 respondent occupying 2% was deputed on international assignment by the previous company 5 times, 33 respondents occupying 66% never had previous international assignment experience.

EMPIRICAL MODEL

The statistical package SPSS was used. Descriptive statistics was done. The statistical method used was analysis of variance(ANOVA) which analyzed the statistical difference among Repatriates Adjustment. The Welch test and the brown-forsythe test, both of which have a significance level of .05 in SPSS, were also used for the variables on which the ANOVA had been performed.

DESCRIPTIVE STATISTICS OF THE STUDY

TABLE SHOWING THE DESCRIPTIVE STATISTICS OF VARIABLES USED IN THIS STUDY OF 50 REPATRIATES

Table No. 2.1

	Mean	Median	Std. Deviation
Age	2.06	2.00	.620
Gender	1.06	1.00	.240
Income	3.52	4.00	.863
Exp_Org	3.20	3.00	1.512
Marital status	1.66	2.00	.605
Family Size	2.04	2.00	.605
Duration of Intl. Assignment	1.84	1.00	1.235
Country deputed for Intl. Assignment	4.71	4.00	2.771

Source: Primary Data

The descriptive statistics in table no. 2.1 shows that the mean value and the median value of Age is 2.06 and 2 respectively, while the standard deviation is 62% variability. The mean and median of Gender is 1.06 and 1 respectively, while the standard deviation is 24% variability. The Income level is having a mean value of 3.52 and median of 4, while the standard deviation is 86.3% variability. Experience of the repatriates in their organizations has a mean of 3.20 and median period of 3. The standard deviation is 151.2. The marital status has a mean of 1.66, while the median is 2 and the standard deviation shows 60.5%variability. The Family size is having a mean value of 2.04 and median of 2 while the standard deviation is 60.5 % variability. The duration of the international assignment is having mean value of 1.84 while the median value of 1%, while the standard deviation has reported 123.5% variability. The country to which the repatriates were deputed on international assignment has a mean of 4.71, median value of 4 while the standard deviation is 277.1% variability.

ONE-WAY ANOVA

H_0: There is no significant difference between Duration of the International Assignment and Repatriates Adjustment.
H_1: There is significant difference between Duration of the International Assignment and Repatriates Adjustment.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.113	4	1.028	2.533	.053
Within Groups	18.270	45	.406		
Total	22.383	49			

Source: Primary Data

RESULT

The ANOVA table indicates that p value is 0.053 which is greater than 0.05. So we reject our null hypothesis. Therefore there is significant difference between Duration of the International Assignment and Repatriates Adjustment.

ONE-WAY ANOVA

H0: There is no significant difference between Intention to leave and Repatriates Adjustment.
H1: There is significant difference between Intention to leave and Repatriates Adjustment.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.023	7	2.146	12.247	.000
Within Groups	7.360	42	.175		
Total	22.383	49			

Source: Primary Data

RESULT

The ANOVA table indicates that p value is 0.000 which is less than 0.05. So we reject our null hypothesis. Therefore there is significant difference between Intention to leave and Repatriates Adjustment.

ONE-WAY ANOVA

H_0: There is no significant difference between Cultural Re-entry and Repatriates Adjustment.
H_1: There is significant difference between Cultural Re-entry and Repatriates Adjustment.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13.081	13	1.006	5.206	.000
Within Groups	6.958	36	.193		
Total	20.038	49			

Source: Primary Data

RESULT

The ANOVA table indicates that p value is 0.000 which is less than 0.05. So we reject our null hypothesis. Therefore there is significant difference between Cultural Re-entry and Repatriates Adjustment.

ONE-WAY ANOVA

H_0: There is no significant difference between Cross-cultural preparation and Repatriates Adjustment.
H_1: There is significant difference between Cross-cultural preparation and Repatriates Adjustment.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10.098	11	.918	2.840	.008
Within Groups	12.285	38	.323		
Total	22.383	49			

Source: Primary Data

RESULT

The ANOVA table indicates that p value is 0.008 which is less than 0.05. So we reject our null hypothesis. Therefore, there is significant difference between cross-cultural preparation and Repatriates Adjustment.

ONE-WAY ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.908	7	2.130	1.669	.143
Within Groups	53.592	42	1.276		
Total	68.500	49			

H_0: There is no significant difference between experience of repatriates in their current position and Intention to leave after International Assignment.
H_1: There is significant difference between experience of repatriates in their current position and Intention to leave after International Assignment.

Source: Primary Data

RESULT

The ANOVA table indicates that p value is 0.143 which is greater than 0.05. So we accept our null hypothesis. Therefore, there is no significant difference between experience of repatriates in their current position and Intention to leave after International Assignment.

ONE-WAY ANOVA

H_0: There is no significant difference between Career Development programs and Repatriates adjustment.
H_1: There is significant difference between Career Development programs and Repatriates adjustment.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.609	18	.812	3.236	.002
Within Groups	7.774	31	.251		
Total	22.383	49			

Source: Primary Data

RESULT

The ANOVA table indicates that p value is 0.002 which is lesser than 0.05. So we reject our null hypothesis. Therefore, there is significant difference between career development programs and repatriates adjustment.

ONE-WAY ANOVA

H_0: There is no significant difference between experience of the repatriates in the organization and Repatriates adjustment.
H_1: There is significant difference between experience of the repatriates in the organization and Repatriates adjustment.

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.312	4	.578	1.296	.286
Within Groups	20.071	45	.446		
Total	22.383	49			

Source: Primary Data

RESULT

The ANOVA table indicates that p value is 0.286 which is greater than 0.05. So we accept our null hypothesis. Therefore, there is no significant difference between experience of repatriates in their organization and repatriates adjustment.

CHI-SQUARE TEST

H_0: There is no relationship between Age and Repatriates Adjustment.
H_1: There is relationship between difference Age and Repatriates Adjustment.

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
READJ_Mean * AGE	50	100.0%	0	.0%	50	100.0%

Source: Primary Data

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	37.761(a)	39	.526
Likelihood Ratio	34.446	39	.678
Linear-by-Linear Association	2.042	1	.153
N of Valid Cases	50		

Source: Primary Data

a 55 cells (98.2%) have expected count less than 5. The minimum expected count is .02.

RESULT

The Chi-square table indicates that p value is 0.526 which is greater than 0.05. So we accept our null hypothesis. Therefore, there is no relationship between Age and Repatriates Adjustment.

SUMMARY AND CONCLUSION

The results of ANOVA Analysis indicated that repatriation adjustment was the strongest predictor of intent to leave the organization for Indian MNC's repatriates after repatriation. The repatriates who perceived a higher level of repatriation adjustment had a lower intent to leave. The results of ANOVA explored that there is significant difference between cross-cultural preparation and Repatriates Adjustment.

In addition to repatriation adjustment, chi-square results indicated that there is no relationship between age and repatriates adjustment. Duration of the International Assignment was significant as an effective predictor for repatriate's adjustment. However, experience of the repatriates in the organization as well as in their position does not have any impact on repatriates adjustment.

While there is still much to be learned about repatriates' turnover intention and its antecedents and outcomes, this study has made an attempt to identify the factors which contribute for repatriates adjustment. First, its results consolidate previous literature, by providing empirical evidence that repatriation adjustment and duration of the international assignment are positively related. Second, this study is the first research that identifies repatriates adjustment among INDIAN MNC repatriates. Therefore, the conceptual framework of this study can be a guide to future research in repatriates' adjustment.

With the globalization of economies, the large amount of capital invested in international personnel, the repatriation process requires further attention (Arthur, 2004). This study provides evidence about the difficulty of repatriation process and reports that cultural re-entry intention to leave and career development programs, duration of the international assignment were the major factors influencing repatriates' adjustment.

RECOMMENDATIONS

The results of the study point to several ways in which global organizations can increase their chances of retaining valuable managers who return from international assignments, The following suggestions will help the Indian MNC's to manage the repatriates in a better way.

a. Inform global managers about any constraints like cultural shock that might impede their performance in their new jobs.
b. Keep repatriates informed as much as possible about the changes in the home country, so that reverse cultural shock will be less which will be experienced by them.
c. Repatriation training can be provided to repatriates in order to retain the valuable repatriates.

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BRAND LOYALTY'S INFLUENCE ON WOMEN'S BUYING BEHAVIOR WITH SPECIAL REFERENCE TO PERSONAL CARE PRODUCTS

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ABSTRACT

People buy products, but which products they buy and how they make a buying decision have a lot to do with how they feel about the brand. Products are what the company makes, what the customer buys is a brand. Brands are strongly linked by consumer's emotion. Billions of dollars have been spent trying to impress consumers while aiming to increase brand loyalty and recognition. Brand Loyalty is something that every brand and company strives for and believes they can attain. The eternal search for companies has been to identify brand loyal customers who in long run prove to be a valuable asset. The study has been conducted to analyze brand loyalty and its effect on purchase decision among 350 women towards personal care products in Chennai city. Findings suggest that Meera and Sunsilk shampoo, Spinz talc, Liril and Mysore Sandal soap and Pepsodent toothpaste has high brand loyalty among women consumers. It is also evident that women with high and medium brand loyalty are driven by secondary benefits such as ingredients of the product, Product should serve the purpose, innovative features, manufacturer's reputation, and the product should be medically tested, while purchasing personal care products.

KEYWORDS
Brand loyalty, buying behaviour, Consumer, Personal care products.

INTRODUCTION
Successful brands live in the hearts and minds of the consumer A brand is been defined as, "an identifiable product, service, person or place, augmented in s such a way that the buyer or user perceives relevant unique added values that mast their needs most closely."(Freire and Caldwell, 2004) Brands have a social and emotional value for the users. According to a study by Mademoiselle Magazine, today's females are "more likely to know what brands they want before they go shopping."(Parks, 1997).In comparison with males, females shop more, and they search for more information when they make purchase decisions. It is assumed that females will pay more attention to brands and place more value on brand names.

Brand loyalty, in marketing, consists of a consumer's commitment to repurchase or otherwise continue using the brand and can be demonstrated by repeated buying of a product or service or other positive behaviours such as word of mouth advocacy. Brand loyalty is more than simple repurchasing, however. Customers may repurchase a brand due to situational constraints (such as vendor lock-in), a lack of viable alternatives, or out of convenience. Such loyalty is referred to as "spurious loyalty". True brand loyalty exists when customers have a high relative attitude toward the brand which is then exhibited through repurchase behaviour. This type of loyalty can be a great asset to the firm: customers are willing to pay higher prices, they may cost less to serve, and can bring new customers to the firm.

Personal care products are generally used for personal health and hygiene. It includes products like body talc, body scrub, tooth paste, tooth brush; tongue cleaner, tooth powder, bathing salts, bathing gel, essential oils, moisturizer, skin creams, face wash, hair oil, hair shampoo, hair conditioner, soap, nail and cuticle care products. The personal care product market was a success on all counts in 2005-2006 with good performances. The major demand is for the products that are of basic need for the consumers like soap, shampoo, hair oil etc. The personal care products industry consists of four major sub-sectors manufacturing a range of products. These sub-sectors are:

- Face Care Products
- Hand and Foot Care Products
- Hair Care Products
- Cosmetics

Factors Influencing the Growth of Personal Care Products;

The global personal care products industry is growing at a very rapid pace; some of the factors responsible are:

- Rise in consumer spending power,
- Increased demand due to people consciousness,
- Key demographic factors,
- Entry of herbal and organic products,
- Lifestyle and climactic changes, and
- Massive advertising and promotion strategy

REVIEW OF LITERATURE
Brand loyalty is viewed as multidimensional construct. It is determined by several distinct psychological processes and it entails multivariate measurements. Customers' perceived value, brand trust, customers' satisfaction, repeat purchase behaviour, and commitment are found to be the key influencing factors of brand loyalty. Commitment and repeated purchase behaviour are considered as necessary conditions for brand loyalty followed by perceived value, satisfaction, and brand trust. Loyalty is primarily an attitude that many a times leads to binding relationship with the brand. Many consultants and & researches argue that there must be "strong attitudinal commitment" for true brand loyalty to exist (**Day, 1969; Jacoby and chestnut, 1978; Foxall and Goldsmith, 1994; Mellars et al; 1996; and Reichheld, 1996**).These attitudes may be measured by asking how many people say they like the brand, feel committed to it, will recommend it to others, and have positive beliefs and feeling about it relative to competing brands (**Dick and Basu, 1994).**Research has, by and large, proved that across dozens of product categories and for many diverse countries(**uncles et al;1994**),few consumers are "monogamous" (100% loyal) or "promiscuous" (no loyalty to any

particular brand).on the contrary, most people are "polygamous"(which basically implies being loyal to a portfolio of brands in a product category).from this perspective, ; loyalty is defined as 'an ongoing propensity to buy the brand, usually as one of several"(**Ehrenberg and scriver,1999).**Several researchers have found satisfaction and attitude to be major antecedents of customer repurchase intentions leading to loyalty over time (**Oliver, 1980, 1981, Bearden and Teel, 1983; Innis, 1991; and Roest and Pieters, 1997)**.A high level of satisfaction is likely to increase the probability that the brand in question will be retained in customer's consideration set and will increase the customer's preference for the brand, thus tending towards loyalty overtime **(Westbrook and Oliver,1981).**

Brand loyal consumers reduce the marketing costs of the firm, as the cost of attracting a new customer has been found to be about six times higher than the costs of retaining an old one (**Rosenberg &Czepiel,1983) (Raj,1985)** investigated the relationship between a brand's share of users and its loyal franchise. Based on data on consumer habits covering, 1000 brands in 86 product categories, it was found that brands with a larger share of users have proportionately larger fractions of loyal buyers.**Hoyer & Brown (1990)** examined two aspects of brand loyalty-purchase loyalty and attitudinal loyalty – purchase loyalty leads to greater market share and attitudinal loyalty leads to higher relative price for the brand.**Raju et al (1990)** analysed the role played by brand loyalty in determining the optimal price promotional strategies used by firms in a competitive setting. The analysis suggested that a brand's likelihood of using price promotions increase with an increase in the competing brands in a product category. **Krishnamurthi and Raj (1991)** explored the relationship between consumer brand preference or loyalty and price elasticity in purchase behaviour. They found that loyal consumers were less price sensitive than non-loyal ones in the choice decision but more price sensitive in the quantity decision.**Laurent et al (1995)** identified three classical measures of brand awareness – aided, spontaneous, and top of mind. The relationships between these measures across asset of brands in the same product category were close, but highly non linear.

Papatla and Krishnamurthi (1996) proposed a brand choice model that provides an estimate of the dynamic effects of promotions on loyalty to the brand and customers sensitivity to the price of the brand, and measures whether promotional purchases reinforce or reduce subsequent response to similar promotions. Results indicated that increased purchases using coupons erode brand loyalty and increase price sensitivity. Consumers make product attributes that meet their needs on dimensions of value, cost and prior satisfaction **(Kotler 1997).**

Lau and Lee (1999) discussed about the importance of brands in the consumer market. The brands are the interface between consumers and the company, and consumers may develop loyalty to brands.**Vigneron and Johnson (1999)** reported that people's needs for appearances and materialism were increasing and this created a boom in the cosmetic and toiletries sector across the world. Study found that the pattern and use of these items vary according to different segments of gender, age and socio-economic class. The study proposed that trust in a brand is important and is a key factor in the development of brand loyalty. (**Thiele and Bennett, 2001**) defined brand loyalty as the biased (non – random) behavioural response (re-purchase, referral, price sensitivity) expressed over time by some decision-making unit with respect to one or more alternative brands out of a set of brands and is a function of psychological processes. **Knox and Walker (2001)** developed a measure in which both brand commitment and brand support were found to be necessary and sufficient conditions for loyalty to exist. Based on this measure, four consumer purchasing styles were identified and characterized as loyals, habitual, variety seekers and switchers. ***Fred*** **Reichheld (2001)** Enhancing customer loyalty could have dramatic effects on profitability. Among the benefits from brand loyalty specifically, longer tenure or staying as a customer for longer was said to be lower sensitivity to price.

Advertising and Marketing Journal's (A&M) Annual Survey of 2002 revealed that "Colgate" remained as India's top brand followed by Dettol, Tata,Lux and Lifebuoy respectively.**Vikas Saraf,** studied the necessity of branding. The study reveals the basis for brand management and it also revealed that, how to create brand image and brand loyalty. The author concludes that branding is everything and brands are not simply products or services. Brands are the sum totals of all the images that people have in their heads about a particular company and a particular mark.**Day G.S.A.** had put forth a 'Two dimensional concept of Brand Loyalty'. He stated that brand attitudes as well as purchase are needed to measure brand loyalty. Analysis on purchases of convenience food brands shows that the true loyal buyers are very conscious of the need of the economies when buying, confident of brand judgement and heavy use of the product. **Lau et al (2006)** conducted a study on brand loyalty with a sample of 280 students aged from 18 to 24 years. The study explored that brand loyalty behaviour in sportswear and examined key brand loyalty factors: brand name, product quality, price, style, store environment and service quality.

OBJECTIVES OF THE STUDY

- To study the impact of demographic variables viz. Age, Educational qualification, Income etc. on the consumers brand loyalty towards personal care products
- To identify the most preferred brand in each product category
- To analyze the brand loyalty existing among women consumers with regard to personal care products.
- To know the important variable that influences the women in purchasing her brand of personal care products.

RESEARCH HYPOTHESIS

The study is based on the hypothesis framed:
H0: There is no significant difference among the levels of brand loyalty and purchase decision of personal care products.

RESEARCH METHODOLOGY

Descriptive research was used for the study. The data was collected from primary and secondary sources. Primary data was collected with the help of a structured and undisguised questionnaire among 350 women consumers in the age group 18 and above, who use personal care products who are residing in Chennai. Secondary data was collected from previous dissertations/research papers/marketing journals/magazines/text books and websites. Convenience sampling technique was employed and the statistical tools used were chi square, correspondence analysis, Factor Analysis and ANOVA.

ANALYSIS & INTREPRETATION

DEMOGRAPHIC PROFILE

TABLE 1.1 SHOWS THE DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Description	No. of respondents	% of respondents
Age		
Less than 25	12	3.4
26 – 35	191	54.6
36 – 45	50	14.3
46 – 55	47	13.4
Above 55	50	14.3
TOTAL	350	100
Educational qualification		
School level	44	12.6
Diploma	29	8.3
Under graduation	52	14.9
Post graduation	153	43.7
Professional	72	20.6
TOTAL	350	100
Marital Status		
Married	235	67.1
Unmarried	115	32.9
TOTAL	350	100
Occupation		
Govt. Employee	39	11.2
Private Employee	32	9.1
Business	30	8.6
Self employed	77	22.0
House wife	117	33.4
Student	19	5.4
Others	28	10.3
TOTAL	350	100
Family Income		
<5000	113	32.3
5000 - 10000	90	25.7
10001 - 15000	60	17.1
15001 – 20000	52	14.9
Above 20000	35	10.0
TOTAL	350	100

Table 1.1 shows that majority of the women are under the age group of 26 -35, having an educational qualification up to post graduation. These women are married, housewives having a family income less than Rs.5000 per month.

CHI SQUARE ANALYSIS

Chi square technique was employed to know whether or not there exists a significant association between i) age and loyalty of women consumers ii) marital status and loyalty of women consumers iii) Family income and loyalty of women consumer

TABLE 1.6: SHOWING THE RELATIONSHIP BETWEEN DEMOGRAPHIC VARIABLES AND BRAND LOYALTY OF WOMEN

Description	Chi square value	df	Significant value
Age	1.718	8	.000*
Marital status	19.206	4	.000*
Family Income	2.481	10	.000*

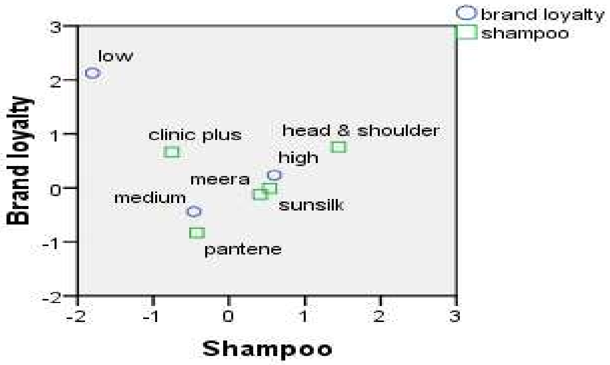
* At 5% significant level

Table 1.6 indicates that brand loyalty has a highly significant association with age, marital status, and family income of women.

CORRESPONDENCE ANALYSIS

Correspondence analysis was employed to analyse the loyalty levels existing among the different brands of personal care products.

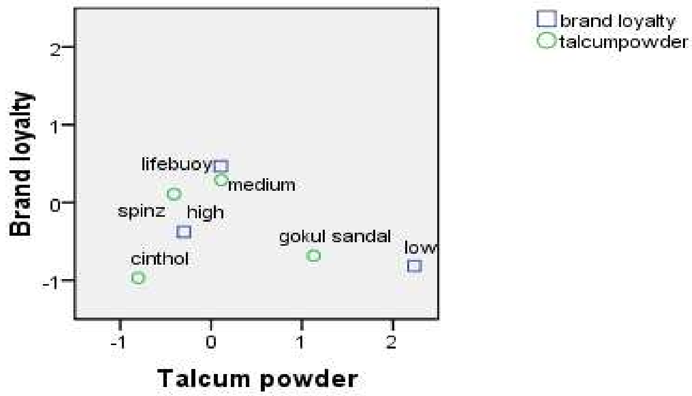
CORRESPONDENCE ANALYSIS SHOWING THE LOYALTY LEVELS OF SHAMPOO BRANDS



INFERENCE

From the chart it is inferred that in shampoo category women are highly loyal towards Meera and Sunsilk brands and medium loyalty is found in Pantene brand.

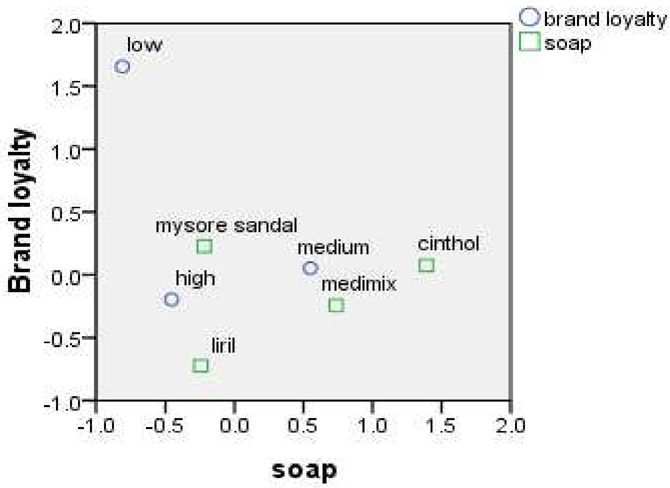
CORRESPONDENCE ANALYSIS SHOWING THE LOYALTY LEVELS OF TALCUM POWDER BRANDS



INFERENCE

From the above chart it is inferred that in talcum powder category women are highly loyal to Spinz talc, Lifebuoy has medium loyalty and Gokul sandal has low loyalty

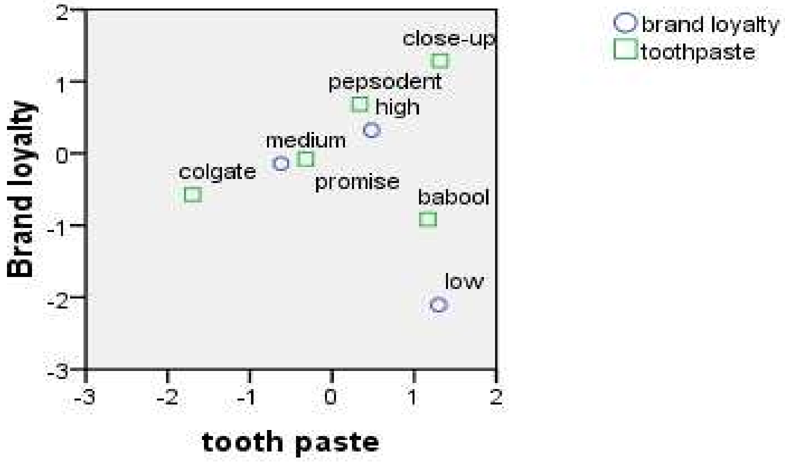
CORRESPONDENCE ANALYSIS SHOWING THE LOYALTY LEVELS OF SOAP BRANDS



INFERENCE

From the above chart it is inferred that in soap category, women are highly loyal to Liril and Mysore sandal soap and medium loyalty is found in Medimix brand.

CORRESPONDENCE ANALYSIS SHOWING THE LOYALTY LEVELS OF TOOTH PASTE BRANDS



From the above chart it is inferred that in tooth paste category women are highly loyal to pepsodent brand and medium loyalty is found in promise and Colgate brand.

FACTOR ANALYSIS

PURCHASE DECISION AND ITS IMPACT ON PERSONAL CARE PRODUCTS

The purchase decision as observed in various research studies is influenced by cultural, social and personal factors. There is no exception to personal care products as and when the customers decide to purchase. Henceforth, the variables that govern purchase decision is identified and analyzed through factor analysis by principle component method.

While making purchase decisions, ten variables were considered viz. Quality, Price, Quantity, Serve the Purpose, Manufacturers reputation, Ingredients, Innovative features, Medically tested.

TABLE 1.7 SHOWS THE TOTAL VARIANCE EXPLAINED RELATING TO VARIABLES OF PURCHASE DECISION

Component	Initial Eigen values			Rotation sums of squared loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Quality	3.546	44.327	44.327	3.369	42.114	42.114
Price	2.041	25.517	69.844	2.218	27.730	69.844
Quantity	.813	10.169	80.013			
Serve the Purpose	.597	7.468	87.481			
Manufacturers reputation	.363	4.544	92.025			
Ingredients	.307	3.840	95.865			
Innovative features	.206	2.577	98.442			
Medically tested	.125	1.558	100.000			

EXTRACTION METHOD: PRINCIPAL COMPONENT ANALYSIS

TABLE 1.8 SHOWS THE ROTATED COMPONENT MATRIX FOR GROUPING OF VARIABLES OF PURCHASE DECISION

	Component	
	1	2
Ingredients	.915	
Serve the purpose	.861	
Innovative features	.821	
Manufacturer's Reputation	.771	
Medically tested	.714	
Price		.915
Quality		.811
Quantity		.764

EXTRACTION METHOD: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 3 iterations.

It is found that ten variables explain 69.84% of the total variance and two major factors are secured as revealed in table 1.7.

As observed in table 1.8 the first factor "primary benefit" includes price, quality, and quantity. The second factor "secondary benefit" comprises of ingredients of the product, Product should serve the purpose, innovative features, manufacturer's reputation, and the product should be medically tested.

ANOVA

The difference between the levels of brand loyalty and factors responsible for purchase decision of Personal care products has been verified parametrically using Analysis of Variance (ANOVA)

H0: There is no significant difference among different levels of brand loyalty and purchase decision of personal care products.

TABLE 1.9 SHOWS THE DIFFERENCE AMONG DIFFERENT LEVELS OF BRAND LOYALTY AND PURCHASE DECISION OF PERSONAL CARE PRODUCTS.

Factors of purchase decisions		Sum of Squares	df	Mean Square	F	Sig.
primary	Between Groups	62.022	2	31.011	66.376	**.000***
	Within Groups	162.119	347	.467		
	Total	224.141	349			
secondary	Between Groups	165.056	2	82.528	275.161	**.000***
	Within Groups	104.075	347	.300		
	Total	269.131	349			

* At 5% significant level

The ANOVA table indicates that the factors of purchase decision as primary benefit
(F = 275.161), and secondary benefit (F=66.376) differ significantly with respect to different levels of brand loyalty at 5% level. The mean wise comparison for the significant variables is presented in the following table1.9.

TABLE 1.10 SHOWS–DESCRIPTIVE FOR THE LEVELS OF BRAND LOYALTY ON THE FACTORS OF PURCHASE DECISION

Brand Loyalty	N	Primary	secondary
High	171	4.05	**4.36**
Medium	164	3.20	**3.77**
Low	15	**4.00**	1.00

Women with high and medium brand loyalty are driven by secondary benefits such as ingredients of the product, Product should serve the purpose, innovative features, manufacturer's reputation, and the product should be medically tested, while purchasing personal care products.
Whereas women with low brand loyalty consider primary benefits such as price, quality, and quantity, when it comes to purchase of personal care products.

FINDINGS

- Majority of the women are under the age group of 26 -35, having an educational qualification up to post graduation. These women are married, housewives having a family income less than Rs.5000 per month.
- Women while choosing shampoo show high loyalty towards Meera and Sunsilk brands. In talcum powder category, they are highly loyal towards Spinz. In soap brand they are loyal to Liril and Mysore sandal. The most preferred tooth paste brand among women is Pepsodent.
- There is a significant relationship between age, marital status, family income and brand loyalty among women consumers.
- The factors influencing purchase decision of personal care products are "Primary benefit" and "secondary benefit". The primary benefit includes price, quality, and quantity. And the "secondary benefit" which comprises of ingredients of the product, Product should serve the purpose, innovative features, manufacturer's reputation, and the product should be medically tested.
- Women with high and medium brand loyalty are driven by secondary benefits such as ingredients of the product, Product should serve the purpose, innovative features, manufacturer's reputation, and the product should be medically tested, while purchasing personal care products. Whereas women with low brand loyalty consider primary benefits such as price, quality, and quantity, when it comes to purchase of personal care products.

CONCLUSION

Women today are extremely aware of the various brands in the market and are conscious of the products they use or consume. They pick and chose carefully according to their needs, style preferences, etc. They also exercise a lot of independence in decision making and influence the family buying behavior.Companies have realized that selling to brand loyal customers is less costly than converting new customers. Brand loyalty provides companies with strong, competitive weapons. This study provides an insight of Chennai women's brand loyalty towards personal care products. While purchasing personal care products the factors which influence high brand loyal women consumers are ingredients of the product, Product should serve the purpose, innovative features, manufacturer's reputation, and the product should be medically tested, and women with low loyalty consider primary benefit viz., price, quality and quantity while purchasing personal care products. It is evident from the study that brand loyal consumers don't think about primary benefit when it comes to purchase of personal care products. Hence marketers need to provide additional benefits to their loyal consumers in order to retain and sustain them for their future business.

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ANALYSIS OF COTTON TEXTILE INDUSTRY IN KARUR DISTRICT, TAMILNADU

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ABSTRACT

Karur is famous for its home textiles. Karur has a niche in five major product groups – bed linens, kitchen linens, toilet linens, table linens and wall hangings. Overall Karur generates around Rs.6000 crores ($300 million dollars a year) in foreign exchange through direct and indirect exports. Allied industries like ginning and spinning mills, dyeing factories, weaving etc employs around 300.000 in and around Karur. The study aims at analyzing the problems of exporters that would be very much useful to make preventive measures. Identifying the own production problems, helps the textile authority to provide valuable suggestions to the exporter's and manufacturer's too. The study analyse problems related to the company for raising its standard. It helps the company to earn more profit and less waste. The specific objectives of the study are to analyse the structure of Textile Industry in India, to analyse the organizational pattern of exporters, to analyse the motivational factor of exporters To discuss the problems of exporters. The sample size taken around 80 textiles in Karur, it was selected through systematic Sampling Method. Primary data was collected using the interview schedule. Statistical tools are to obtain finding and average information in logical sequence from the data collected. After tabulation of data the researcher used following quantitative techniques such as Percentage, and Kendall's Coefficient of Concordance. Yarn prices to be reduced to meet their client requirements. The recommendations are to maintain a good raw material supply, Government should band raw material export. Our government have to fix raw materials cost annual or as per the availability. The cotton industry is to be taken to reduce the cost of transport and provide proper training to their employees; Proper stitching to be done by the trainers in proper time; Steps to be taken to reduce the waste and make use of wastage in producing useful products; Infrastructure play and essential part in production process; Shortage of Labour is to be prevented in the current scenario; Commerce ministry is to be highly supportive in protecting all export problems.

KEYWORDS
Cotton textile, Handlooms, Production Cycle, Home Furnishing Exports, Handloom Fabrics.

INTRODUCTION

The entire spectrum of production and processing facilities, needed to manufacture home furnishing products, are available in and around Karur. While the villages around Karur have enough handlooms to supply fabric to the exporters, the town itself has a strong powerloom base. Sourcing the yarn is not much of a problem because major spinning centres like Coimbatore, Salem and Dindigul are just one or two hours drive away from Karur. The town has considerable capacity for yarn dyeing and fabric dyeing could be outsourced to Perundurai near Salem. In addition, the local labour has strong skills in weaving, dyeing and stitching. The experience gained in catering to the domestic market has also helped the local industry when it started to penetrate the export markets. "Certainly, the sound technical know-how of the local labour is one of the key factors that have put Karur on a strong footing. This is also the reason why many companies from North India have set up production facilities here. With a view to making good use of Karur's inherent advantages' many companies have established factories in the town. Many Panipat exporters have also created strategic tieups with manufacturing units in Karur to meet the growing demand of Karur products in home furnishing from their buyers. "Most of the manufacturer-exporters were once handloom weavers. They have reached their current status by sheer hard work. The Karur exporter is also a genuine businessman, who always keeps his word. These intangibles have also helped Karur to develop into an internationally known sourcing point for home textiles. These are largely traditional strengths and do not explain the exports from the town gathering momentum in the last five years. "On the one hand, the local exporters have been sharply focusing on export markets and continuous modernization of the production process. On the other hand, many manufacturers have also turned themselves into direct exporters rather than supplying, as they were doing in the past, to merchant exporters based in places like Mumbai.

In recent years, Karur has also seen many significant changes in the production sphere. All manufacturer-exporters invariably have an in-house stitching facility. Other activities in the production cycle like yarn dyeing and weaving are either handled by themselves or outsourced. Many more companies are also jumping onto the integrated set-up bandwagon taking the advantage of cost, efficiency and lead-time. Integrated units put a company in an advantageous positions vis-à-vis cost, quality and lead time. The cost savings could be to the tune of 15%. With an integrated unit, it is also possible to ensure greater consistency of quality. As one can have tighter control over production process, it is easier to make improvements. Finally, and integrated unit helps to cut down the lead-time. This is crucial in home furnishing export business to-day. As for as weaving is concerned, 50% of the weaving is still carried out on power looms. The auto looms account for 30-35% weaving. This represents a major change form the past. The handlooms have however, not fallen silent due to the large-scale shift to power looms and auto looms. The handloom weavers continue to get work despite the proliferation of power looms and auto looms. This is perhaps because of the growing volume of home furnishing exports from the town and the growing interest in handloom fabrics for home fashion in the international market. Apart form the introduction of auto looms the home furnishing companies have also implemented technological upgradation in dyeing and stitching operations. While the majority of exporters have shifted from manual to cabinet dyeing, the stitching facilities are now functioning with power driven machines.

NEED FOR THE STUDY

The study aims at analyzing the problems of exporters that would be very much useful to make preventive measures. Identifying the own production problems, helps the textile authority to provide valuable suggestions to the exporter's and manufacturer's too. The study analyse problems related to the company for raising its standard. It helps the company to earn more profit and less waste.

OBJECTIVES OF THE STUDY

The specific objectives of the study are,

- To analyse the structure of Textile Industry in India.

- To analyse the organizational pattern of exporters in Karur District.
- To analyse the motivational factor of exporters in Karur District.
- To discuss the problems of exporters in Karur District.

SCOPE OF THE STUDY

This is study on Cotton Textile Industry to the keen observation in Karur textile product only. The main purpose of this study is to know the production problem of cotton textile products. It also covers the overall cotton textile which centrates only selected respondents in Karur only. The result of the study is very much applicable to other company home textile products and other parts of the country.

LIMITATIONS OF THE STUDY

- This study is limited to Karur Textile products at Karur only.
- As the study has been termed itself to limited period, it is not possible to cover all employees within a short period of time.
- The respondent sometimes hesitates to tell the information about their company.
- The study has been targeted towards the employees of sample size only 80 which is limited.

REVIEW OF LITERATURE

The textile industry is one of the largest segments of the Indian economy accounting for over one fifth of total industrial production, and provides employment to approximately 15 million people. With over 9 million hectares under cotton cultivation and an annual crop of approximately 2,771 million kg, India is one of the world's largest reservoirs of this popular fiber. It enables the industry to manufacture almost every conceivable count and construction of fabrics." He suggested that the process of economic liberalization that began in the last decade has seen the industry become globally competitive (Anonymous, 2001). In India, the government priorities concentrate on transfer of technology and automation of the sector ''to build world class state-of-the-art manufacturing capabilities (B.Choudhary, 2001).

Production of all types of chemical and natural textile fibres increased by 4.2% in 2002 in comparison to the previous year and attained 62.7 million tons. World production of chemical fibres increased by 6.1% in 2002, to 36.5 million tons, including a 6.2% increase for synthetic fibres, to 33.8 million tons, and a 1.6% increase in cellulose fibres (for the first time in recent years) by 1.6%, to 2.7 million tons. Polyester fibres and yarn remained the leaders in world production of textile raw materials, of which 81% was concentrated in Asia and half of the production volume was in China and Taiwan (Aizenshtein E.M., 2004). One must also consider the scope or range of options available to southern cotton textile managers in the selection of a pattern of labor deployment (Cathy L. McHugh, 1988).

World trade in textiles and clothing amounted to US $ 385 billion in 2003, of which textiles accounted for 43 percent (US $ 169 bn) and the remaining 57 percent (US $ 226 bn) for clothing. Developed countries accounted for little over one-third of world exports in textiles and clothing. The shares of developed countries in textiles and clothing trade were estimated to be 47 percent (US $ 79 bn) and 29 percent, (US $ 61 bn) respectively (Zhou Kaipin, 2008).

Textile printing has seen a number of innovations in printing methods since hand block printing were first superseded by machine methods. The changeover from traditional design work to using a CAD system can be a very positive experience. The main uses of CAD system are the creation of original designs, or the interpretation of artwork supplied by customers, the latter being either. (Ruchi Kholiya, Shahnaz Jahan, Rita Raghuvanshi, 2008).

The textile industry has a significant presence in the country's economy, contributing heavily to industrial production, employment and foreign currency earnings. Employing approximately 15 million people, the industry... The Indian textile industry is the second largest in the world. It has the largest cotton acreage of 9 million hectares, and is the third largest producer of this fiber. The industry ranks fourth in terms of staple fiber production and sixth among filament yarn production (Anonymous, 2002).

The production processes for high viscosity polyester are driven by two fast growing market segments the packaging materials especially the polyester bottles and the technical yarn production. Both areas are fortunately excluded from Chinese polyester fiber predominance yet and growing round the World between 6 and 12%/a (Dr. U. K. Thiele, 2008).

Ranking as the fourth largest producer of man-made fiber and yarn, second largest producer of viscose staple fiber, second largest number of spinning spindles and highest in loom capacity; India is exposed to a floodgate of opportunities and challenges. Indian manufacturers in this new scenario of free trade are increasingly trying to consolidate their strengths and potentials to grab a larger share of the global markets for synthetic textiles (Toshniwal, R L., 2006). Textile manufacturers at Karur are aiming at increasing exports in the next five years to the tune of Rs. 5, 00,000 crores. From Karur table linen, kitchen linen and furnishings are exported (M. Soundariya Preetha, 2004).

RESEARCH METHODOLOGY

Research Methodology is a way to solve the research problem. It may be understood as studying how research is done systematically. For the study purpose, Karur has been selected because most of Textile industry situated in Karur only. Nearly 55% come from Karur Exporter Association (KEA) out of which at present nearly 650 units are actively engaged in exporting and related production process in Karur. Hence, 10% of the above units have been selected as sample for the purpose of present study. Based on simple random sampling, 80 units were selected for collecting the primary data. The researcher adopted the following methodology for the study.

RESEARCH DESIGN: A sound research design is inevitable for a work to be successful. Hence the research design is descriptive in nature. Research design is the basic framework which provides guidelines for the rest of the research process. It specifies the methods of data collecting & analysis.

POPULATION: It is the aggregate of all elements usually defined prior to the selection of the sample. It indicates finite no. of respondents. Reference to the Karur exporter's association "Membership exporter" are 133 in number and "Non – Membership exporter is termed to be above 500. The research study includes 80 respondents for the survey in Karur textiles.

SAMPLING METHOD: The sampling method indicates how the sample units are selected. The most important decision in this regard is to determine which of the probability or non-probability samples is to be chosen. There are basically two types of sampling methods:

a) Probability Sampling method and
b) Non probability sampling method.

The sample size taken around 80 textiles in Karur, it was selected through systematic Sampling Method. Therefore this concludes, it is a probability sampling method.

SAMPLE SIZE: The sample size taken around 80 textiles in Karur, it was selected through systematic Sampling Method.

SOURCES OF DATA

a) Primary Data
b) Secondary Data

PRIMARY DATA GATHERED: Primary data consists of original information collected for specific purpose. Primary data are those which are collected for the first time and they are original in character. If an individual or an office collects the data to study a particular problem the data are the raw material of the enquiry. They are primary data collected by the investigator himself to study any particular problem. For the present study the primary data have been collected through interview schedule the present study censes method in Karur district above 650 exporter are functioning of the district for the present study of 80 exporter have been included Conducted through interview schedule.

SECONDARY DATA: Secondary data consists of information that already exists and having been collected for some other studies. For the present study the secondary data have been collected through various internet, Websites and company catalogs.

METHODS OF DATA COLLECTION: The Data may be collected through primary sources and secondary sources. The researcher has collected the data from both the sources as noted above.

DATA COLLECTION PROCEDURE: Primary data was collected using the interview schedule. The respondent's reference to each question was carefully noted in the interview schedule. Their preferences and suggestions were carefully observed and noted.The interview schedule for the current project has been drafted in such a way as not to avoid or ignore even a light drifting of their opinions. Respondents were explained of the purpose of this study and workings in the interview schedule.

ANALYTICAL TOOLS USED: Statistical tools are to obtain finding and average information in logical sequence from the data collected. After tabulation of data the researcher used following quantitative techniques.

a) Percentage
b) Kendall's Coefficient of Concordance

PERCENTAGE ANALYSIS: Percentage analysis refers to a special kind of Ratio, Percentage are used in making comparisons between two or more series of data. Percentage relates the data figure with the base figure studied.

KENDALL'S COEFFICIENT OF CONCORDANCE: Kendall's coefficient of concordance, represented by the symbol W, is an important non-parametric measure of relationship. It is used for determining the degree of association among several (k) sets of ranking of N objects or individuals. This descriptive measure of the agreement has special applications in providing a standard method of ordering objects according to consensus when we do not have an objective order of the objects. The basis of Kendall's coefficient of concordance is to imagine how the given data would look if there were no agreement among the several sets. The procedure for computing and interpreting Kendall's coefficient of concordance (W) is as follows:

- All the objects, N, should be ranked by all k judges in the usual fashion and this information may be put in the form of a k by N matrix;
- For each object determine the sum of ranks (R_j) assigned by all the *k* judges;
- Determine R and then obtain the value of s as under: $s = \sum (R_J - R_J)^2$
- Work out the value of W using the following formula:

$$W = \frac{s}{1/12\, k^2 (N^3 - N)}$$

where $s = \sum (R_J - R_J)^2$;
k = no. of sets of rankings i.e., the number of judges;
N = number of objects ranked;
$1/12\, k^2 (N^3 - N)$ = maximum possible sum of the squared deviations i.e., the sum *s*
Which would occur with perfect agreement among k rankings?

DATA ANALYSIS AND INTERPRETATION

1. KENDAL'S TEST BETWEEN THE FORM OF ORGANIZATION AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Sole Trader		Partnership		Joint Family	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Employment	2.31	IV	2.71	IV	5	I
Traditional Business	4.25	I	3.85	I	1	V
More Profit	2.79	III	3.37	II	2	IV
Growth Opportunity	2.86	II	2.79	III	4	II
Existing Demand	2.12	V	2.42	V	3	III

Source: Primary Data

H_0: The different forms of exporters do not rank the motivational factor similarly.
H_1: The different forms of exporters rank the motivational factor similarly.
Since, the calculated value S (24) is less than the Table value (64.3); hence, the null hypotheses are accepted. It concluded that the different form of exporters rank the motivational factor in different manners.

2. KENDAL'S TEST BETWEEN THE AGE OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Up to 5 Years		5-10 Years		Above 10 years	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Employment	2.82	V	2.39	IV	2.78	III
Traditional Business	3.61	I	3.65	I	3.81	I
More Profit	3.21	III	3.52	II	3.26	II
Growth Opportunity	3.11	IV	3.17	III	2.65	IV
Existing Demand	3.32	II	2.26	V	2.47	V

Source: Primary Data

H_0: The different age of exporters do not rank the motivational factor similarly.
H_1: The different age of exporters rank the motivational factor similarly.
Since, the calculated value S (60) is less than the Table value (64.3); hence, the null hypotheses are accepted. It concluded that the different age of exporters rank the motivational factor in different manners.

3. KENDAL'S TEST BETWEEN THE MODE OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Direct		Export through agency		Both	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Employment	2.41	III	2.92	IV	2.79	IV
Traditional Business	3.83	I	3.72	I	3.63	II
More Profit	3.39	II	3.32	II	3.25	III
Growth Opportunity	2.23	IV	3.08	III	3.65	I
Existing Demand	3.13	V	2.08	V	1.71	V

Source: Primary Data

H_0: The different modes of exporters do not rank the motivational factor similarly.
H_1: The different modes of exporters rank the motivational factor similarly.
Since, the calculated value S (70) is greater than the Table value (64.3); hence, the null hypotheses are rejected. It concluded that the different mode groups of exporters rank the motivational factors in similar manners

4. KENDAL'S TEST BETWEEN THE FORM OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Sole Trader		Partnership		Joint Family	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Increase of Yarn Price	10.94	I	6.92	I	7	I
Increase of Operational cost	5.13	II	4.73	II	3	V
Heavy advance Payment to weavers	3.94	III	3.53	VI	2	VI
Shortage of Worker	3.69	IV	3.73	III	6	II
Shortage of Finance	2.63	VII	3.06	VII	5	III
Low quality of yarn	2.89	VI	2.68	IV	4	IV
Shortage of availability of yarn	3.63	V	3.67	V	1	VII

Source: Primary Data

H_0: The different forms of exporters do not rank the motivational factor similarly.
H_1: The different forms of exporters rank the motivational factor similarly.
Since, the calculated value S (108) is less than the Table value (157.3); hence, the null hypotheses are accepted. It concluded that the different form of exporters rank the motivational factor in different manners.

5. KENDAL'S TEST BETWEEN THE AGE OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Upto 5 years		5-10 years		Above in 10 years	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Increase of Yarn Price	6.89	I	7	I	1.63	VII
Increase of Operational cost	4.26	III	5	II	4.87	I
Heavy advance Payment to weavers	4.37	II	3.57	IV	3.18	IV
Shortage of Worker	3.89	IV	4	III	3.58	III
Shortage of Finance	3.63	V	2.78	VI	2.87	V
Low quality of yarn	2.68	VI	2.77	VII	2.55	VI
Shortage of availability of yarn	2.47	VII	3.13	V	4.05	II

Source: Primary Data

H_0: The different age of exporters do not rank the motivational factor similarly.
H_1: The different age of exporters rank the motivational factor similarly.
Since, the calculated value S (122) is less than the Table value (64.3); hence, the null hypotheses are accepted. It concluded that the different age of exporters rank the motivational factor in different manners.

6. KENDAL'S TEST BETWEEN THE MODE OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Direct		Export through agency		Both	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Increase of Yarn Price	7.34	I	6.92	I	7	I
Increase of Operational cost	5.17	II	5.08	II	4.33	II
Heavy advance Payment to weavers	3.9	IV	3.6	V	3.46	IV
Shortage of Worker	3.72	V	3.72	IV	4.21	III
Shortage of Finance	3.34	VI	2.76	VI	3.17	VI
Low quality of yarn	2.51	VII	2.64	VII	3.38	V
Shortage of availability of yarn	4.24	III	3.75	III	2.42	VII

Source: Primary Data

H_0: The different modes of exporters do not rank the motivational factor similarly.
H_1: The different modes of exporters rank the motivational factor similarly.
Since, the calculated value S (204) is less than the Table value (157.3); hence, the null hypotheses are rejected. It concluded that the different modes of exporters rank the motivational factor in similar manners.

7. KENDAL'S TEST BETWEEN THE FORM OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Sole Trader		Partnership		Joint Family	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Increase of Transportation cost	3.25	III	3	III	1	IV
Difficult to receive the Abroad Market Information	3.31	II	3.01	II	2	V
Fluctuation in Foreign Exchange	4.56	I	4.75	I	5	I
Difficult to complete the order in time	2.13	IV	2.29	IV	4	II
Limited order	2	V	1.96	V	3	III

Source: Primary Data

H_0: The different forms of exporters do not rank the motivational factor similarly.
H_1: The different forms of exporters rank the motivational factor similarly.
Since, the calculated value S (54) is less than the Table value (64.3); hence, the null hypotheses are accepted. It concluded that the different form of exporters rank the motivational factor in different manners.

8. KENDAL'S TEST BETWEEN THE AGE OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Upto 5 years		5-10 years		Above 10 years	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Increase of Transportation cost	3.67	II	3.52	II	2.92	II
Difficult to Receive the Abroad market Information	2.68	III	2.87	III	2.87	III
Fluctuation in Foreign Exchange	4.79	I	4.65	I	4.74	I
Difficult to complete the order in time	2.05	V	2.17	IV	2.42	IV
Limited order	2.21	IV	1.83	V	2.03	V

Source: Primary Data

H_0: The different ages of exporters do not rank the motivational factor similarly.
H_1: The different ages of exporters rank the motivational factor similarly.
Since, the calculated value S (86) is greater than the Table value (64.3); hence, the null hypotheses are rejected. It concluded that the different age of exporters rank the motivational factor in similar manners.

9. KENDAL'S TEST BETWEEN THE MODE OF THE UNIT AND THE MOTIVATIONAL FACTORS OF THE KARUR TEXTILES

Motivational Factor	Direct		Export Through Agency		Both	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Increase of Transportation cost	2.35	III	3.4	II	3.42	II
Difficult to receive the Abroad MarketInformation	3.74	II	2.08	III	2.3	IV
Fluctuation in Foreign Exchange	4.58	I	4.64	I	5	I
Difficult to complete the order in time	1.23	V	2.2	IV	2.36	III
Limited order	2.09	IV	1.96	V	1.92	V

Source: Primary Data

H_0: The different forms of exporters do not rank the motivational factor similarly.
H_1: The different forms of exporters rank the motivational factor similarly.
Since, the calculated value S (74) is less than the Table value (64.3); hence, the null hypotheses are rejected. It concluded that the different form of exporters rank the motivational factor in similar manners.

FINDINGS

- It was clear from the study, 77.5% of the respondents belong to partnership firm in Karur textile industry.
- 47.5% of the respondents belong to above 10 years.
- 38.8% of the respondents belong to the mode of export direct.
- 87.5% of the respondents select their nature of business as both production and export.
- 71.3% of the respondents belong to the category "No" for the other business.
- It shows that the ranking pattern of exporter towards motivational factor is different manners. Hence the calculation is less than the table value, the null hypothesis is accepted.

RECOMMENDATIONS

- Yarn prices should be reduced to meet their client requirements.
- To maintain a good raw material supply, Government should band raw material export.
- Our government have to fix raw materials cost annual or as per the availability.
- Steps to be taken to reduce the cost of transport.
- Proper training should be provided the employees.
- Proper stitching to be done by the trainers in proper time.
- Steps to be taken to reduce the waste and make use of wastage in producing useful products.
- Infrastructure play and essential part in production process.
- Shortage of Labour is to be prevented in the current scenario.
- Commerce ministry is to be highly supportive in protecting all export problems.

SCOPE FOR FURTHER RESEARCH

The present study "An Analyse of Cotton Textile Industry, Karur" is an attempt to analyse the various reasons to start business, problems in job work & problems in export in Karur Textile Industry. It is not a complete study on Textile Industry in Karur, due to limited time. Hence, in future the following research projects can be undertaken in the study area,

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ANALYSING THE TRADING ACTIVITIES OF MUTUAL FUNDS TO IDENTIFY THE TREND OF THE INDIAN STOCK MARKET

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ABSTRACT

Mutual funds are money managing institutions set up to professionally invest the money pooled in from the public. These schemes are managed by Asset Management Companies (AMC), which are sponsored by different financial institutions or Companies. Looking into the Indian economy the GDP is growing at the rate of 7 – 9 percent in last few years. These indication shows that there is a growth in Indian Stock Market. Taking into picture from 2001 – 2010, the Indian stock market has risen by almost by 6 times. The Indian Mutual fund industry is dominated by the Unit Trust of India, which has a total corpus of Rs.700bn collected from more than 20 million investors. This growth has attracted investors to invest in the Indian stock market through FIIs and DIIs. The Stock Market is influenced by many factors like production, monsoon, climate, Forex, political situation, demand, supply, GDP, etc… It is very much important for the traders and the investors to indentify the trend of the market before taking any investment decisions, even though Fundamental and Technical Analysis are the major tools for any investors and the traders to make decision before investing money in the stock market. Here in this paper the researcher tries to identify the major market trend by analyzing the net buying and net selling activities of the mutual funds in India. The researcher used the historical data of mutual funds activities of Indian stock market which was collected from January 2006 to March 2011. With this data, the researcher tries to analyze whether one can find any prior indication of trend for short, middle and long term or whether one can get any trend reversal indication.

KEYWORDS

20 EMA, AMC, CMFI, FII, NIFTY.

INTRODUCTION

Our Economy is a growing economy where we are witnessing a momentous growth in different types industries. Indian economy is growing at the rate of 7 – 9 percent since last few years. These are some positive indication which shows the very good picture of the Indian Stock Market. From 2001 – 2010, our market rises by almost by 6 times. Our market is recovering from the recession and the market had given tremendous gains to the investors and as a result of it, we are considering that our market is attracting huge funds from FIIs and DIIs. At present in the people of India are aware of the moves of the Indian stock market and they are also making some direct and indirect investments. A Stock Market influenced by many factors including production, monsoon, climate, forex etc… A stock market / share market is a public market for the trading of company stock and derivatives at an agreed price and these are securities listed on a stock exchange as well as those only traded privately. The movements of the prices in a market or section of a market are captured in price indices called stock market indices, of which there are many, e.g., the S&P, the FTSE and the Euro next indices. Such indices are usually market capitalization weighted, with the weights reflecting the contribution of the stock to the index. The constituents of the index are reviewed frequently to include/exclude stocks in order to reflect the changing business environment. It is very much important for the traders and the investors to indentify the trend of the market before taking any investment decisions. The movement of the indices represents the trends of the stock market. The trend may be upward (Bullish) or downward (Bearish). The National Stock Exchange (NSE), NIFTY (National Fifty) is very popular indices for representing the trend of the Indian stock market. Fundamental and Technical Analysis are the major tools for any investors and the traders to make decision before investing money in the stock market. By using Fundamental analysis, one can identify the trend of the market with the help of quantitative and qualitative information which are related with EIC analysis (Economy, Industry and Company). But Technical analysis is uses the historical data of prices and volume and then prepare charts for the same. Apart from this two, certain statistical indicators were also used to determine the trend of the market. In this paper, the researcher tries to finding out the major market trends by analyzing net buying and selling activities of the all the mutual funds of India. As per the requirement of SEBI all the AMCs those who are offering different schemes of mutual funds had to be submit their investment detail to the SEBI on daily basis and SEBI will publish that on its website on daily basis. Based on this, one can able to identify, whether mutual funds are net buyers or net sellers on a particular day. At present the investors are suffering losses due to the fluctuations in the Indian stock market. So, with this data, the researcher tries to analyze whether one can find any prior indication of trend for short and middle term or whether one can get any trend reversal indication.

OBJECTIVES

(1) To find out the stock market trend (upward or downward) by analyzing the trading activities of the various Asset Management Companies (AMCs) which is managing various mutual funds in India.
(2) To recognize the trend reversal indicators for Indian Stock Market based on trading activities of different Asset management Companies (AMCs).
(3) The study also highlights how the investments in MFs lead to change in the trend of the Indian Stock market in different market conditions.

METHODOLOGY

In this Study, historical data of daily investment activities of different AMCs which offers and administers Mutual Fund and NIFTY (NATIONAL FIFTY) which is a chief index of the Indian Stock Market has been collected from January 2006 to March 2011. The past data of NIFTY is being collected from its official website (www.nseindia.com). The data of daily investment activities of different AMCs are collected from the official website (www.sebi.gov.in) of Security Exchange Board of India (SEBI). The Cumulative Mutual Fund Investment (CMFI) is being calculated for every day during January 2006 to March 2011. Then 20 Day Exponential Moving Average (20 EMA) of NIFTY and Cumulative Mutual fund Investment (CMFI) has been calculated. Afterwards, all the data's has been plotted in the appearance of line charts. The basis behind selecting the 20 EMA to find the trend is that, it is a very popular and widely followed indicator for deciding trends as per theory of Technical Analysis.

In the above paragraph it's mentioned 20 EMA which includes 20 EMA of NIFTY and 20 EMA of CMFI. Both the 20 EMA of NIFTY and 20 EMA of CMFI are plotted in the trend line. In case of NIFTY, if price maintains above 20 EMA line, it means that NIFTY is in "Uptrend" and if price sustains below 20 EMA line, it means that NIFTY is in "Downward Trend". In case of Cumulative Mutual Fund Investment (CMFI), if the value of CMFI remains above the 20 EMA, it means that different AMCs are strappingly performing buying activities in the Indian stock market, they are bullish on market and NIFTY is expected to go up. But, if the value of CMFI sustains below 20 EMA, it means that overall different AMCs are strongly performing selling activities in the Indian stock market, they are bearish on market and NIFTY is expected to go down.

Correlation has also been calculated to confirm whether the strength of the indication's of trend reversal indications. Apart from this, 50 EMA and 200 EMA of Cumulative Mutual Fund Investment (CMFI) also calculated to check the overall positions of different AMCs, especially in recent days. For all the calculation purpose, Microsoft Excel is used.

ANALYSIS AND INTERPRETATION

1. ANALYSIS FOR THE YEARS JANUARY 2006 – MARCH 2011

CHART 1.1 – NIFTY AND 20 EMA OF NIFTY

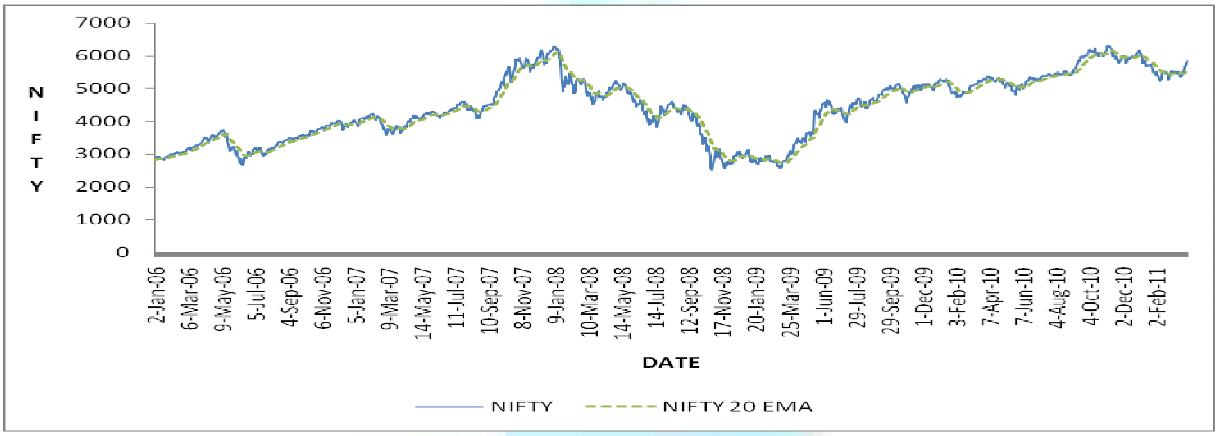
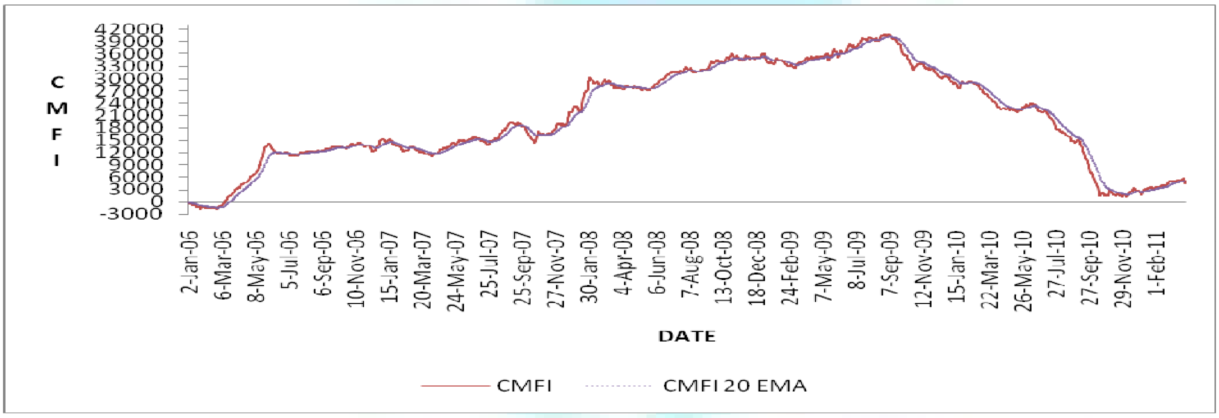


CHART 1.2 – CMFI AND 20 EMA OF CMFI



The Chart 1.1 and 1.2 represents the overall trend of NIFTY and Cumulative Mutual Fund Investment (CMFI), it was also prepared to understand the yearly basis trend.

Chart 1.1 results reveal that, from January 2006 to June 2007, NIFTY lies broadly between the ranges of 2500 to 4000. It was observed that during this time period the activities of Mutual Funds are performed by buying activities. Their holdings get increased in these periods. From the chart no 1.2, one should note that holdings of the mutual funds show a positive trend and at last it shows a negative trend and then it starts increasing. From January 2008 to November 2008 NIFTY goes downward trend. It falls by almost 59% during this time period. From March 2009 to November 2010, the NIFTY increased by almost 144%. Similarly from March 2006 to September 2009, CMFI is getting increasing. Even though in the correction of January 2008, the CMFI is not gone down much. For clear understanding, let us look into the yearly analysis of both the NIFTY and CMFI.

2. ANALYSIS FOR THE YEARS 2006

Chart 2.1 - NIFTY and 20 EMA of NIFTY

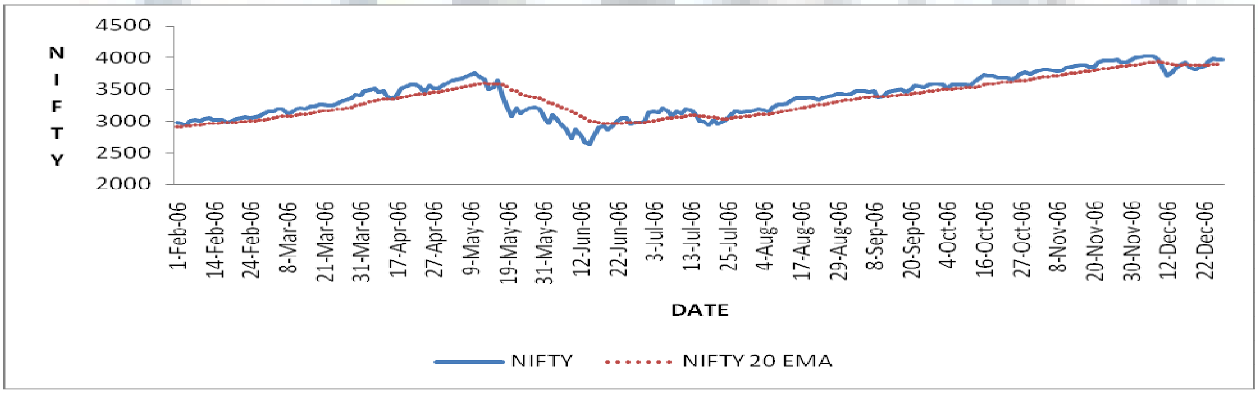
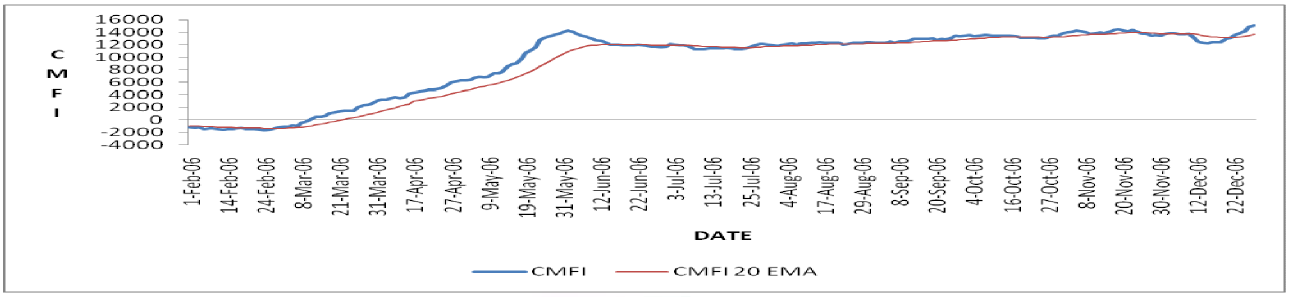


CHART 2.2 - CMFI AND 20 EMA OF CMFI



During January 2 to March 8, NIFTY gives gain and remains above the 20 EMA but during the same time for CMFI, it shows that it consolidating near 20 EMA in the beginning and then it starts raise and remains above 20 EMA. So during this time, a positive correlation (+0.45) was established between NIFTY and CMFI. So, here one can observe a raise in NIFTY from around 3130 to 3755 (about 20%). During March 9 to May 10, both NIFTY and CMFI tend to remain above 20 EMA and a positive correlation (+0.95) establishes between them. During May 18 to June 8, NIFTY lies below its 20 EMA but during the same period CMFI was raised and then it remained below 20 EMA. So, during this time NIFTY and CMFI had negative correlation (-0.49). So, it is observed here that NIFTY was raised from around 2777 to 3197 (about 15%) during June 12 to July 5. During July 26 to December 29, NIFTY remains above the 20 EMA but in the middle for a few days it was below its 20 EMA but CMFI was consolidating near and above to 20 EMA. Thus, they are positively correlated (+0.80). Then in the next year one can see that NIFTY has raise tremendously.

3. ANALYSIS FOR THE YEARS 2007

Chart 3.1 - NIFTY and 20 EMA of NIFTY

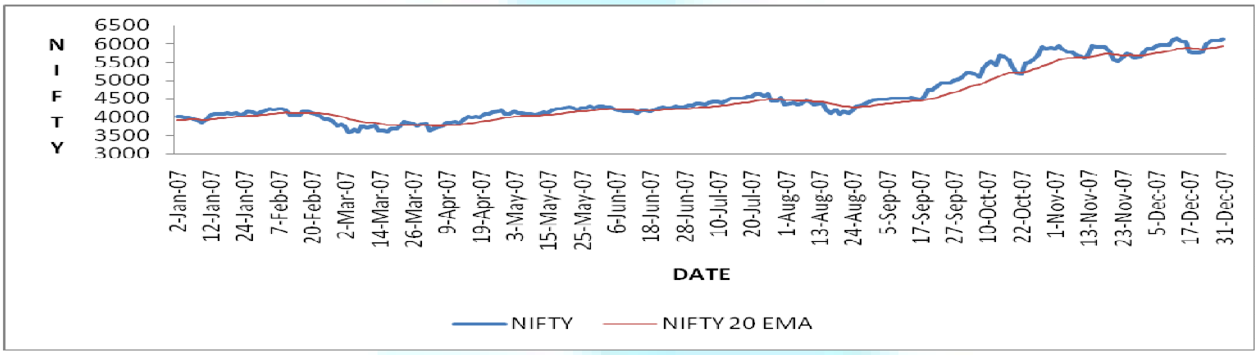
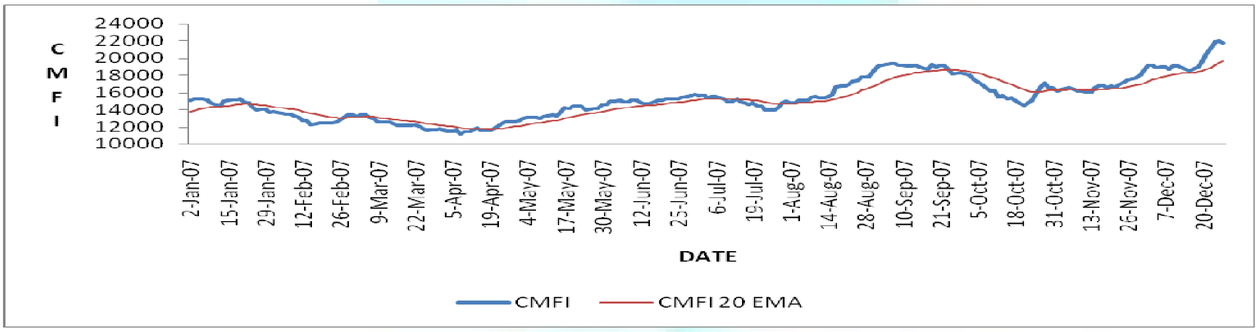


CHART 3.2 - CMFI AND 20 EMA OF CMFI



During January 2 to February 9, NIFTY remains above the 20 EMA but during the same time for CMFI, it was above the 20 EMA in the beginning and then it starts falls below the 20 EMA. So during this time, a high negative correlation (-0.67) was established between NIFTY and CMFI. So, it is observe a fall in NIFTY from 4058 to 3698 (around 8%) during Feb 12 to March 20. During March 21 to June 5, NIFTY remains above the 20 EMA, CMFI was consolidating near and above to 20 EMA. Thus, they are positively correlated (+0.87). Here, it is observed that NIFTY is raised from 4192 to 4619 (about 10%) during from June 6 to July 26. During June 19 to July 26, NIFTY remains above the 20 EMA but CMFI was lies above its 20 EMA in the initial days and then it lies below its 20 EMA. During this time a high negative correlation (-0.79) was established between NIFTY and CMFI. So, it is observed that there is a fall in NIFTY from 4445 to 4075 (around 8%) during July 27 to August 21. From July 27 to August 27, NIFTY remains below the 20 EMA but CMFI was lies below its 20 EMA in the initial days and then it lies above its 20 EMA. During this time a high negative correlation (-0.77) was established between NIFTY and CMFI. Here, it is observed that there is a raise in NIFTY from 4321 to 5668 (around 31%) during August 28 to October 16. During October 17 to November 20, NIFTY remains above the 20 EMA but CMFI was lies below its 20 EMA in the initial days and then it lies above its 20 EMA. During this time a high positive correlation (0.92) was established between NIFTY and CMFI. Here, it is observed that there is a raise in NIFTY from 5561 to 6139 (around 10%) during November 21 to December 31.

4. ANALYSIS FOR THE YEARS 2008

CHART 4.1 - NIFTY AND 20 EMA OF NIFTY

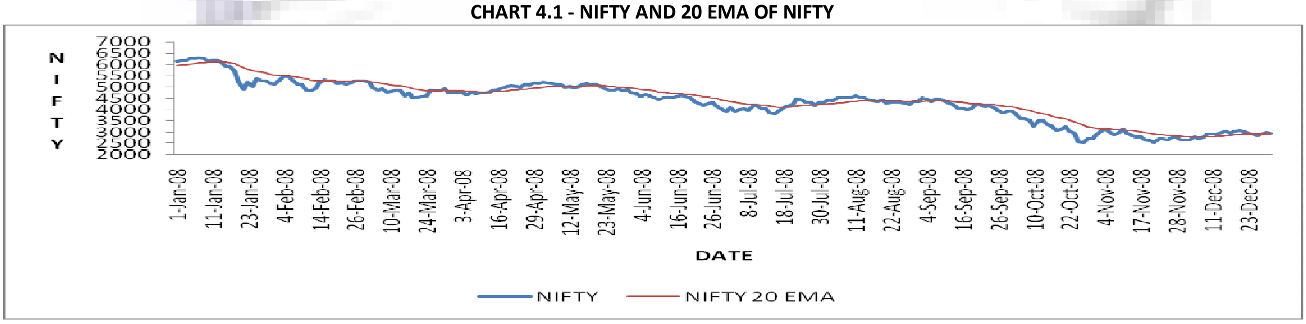
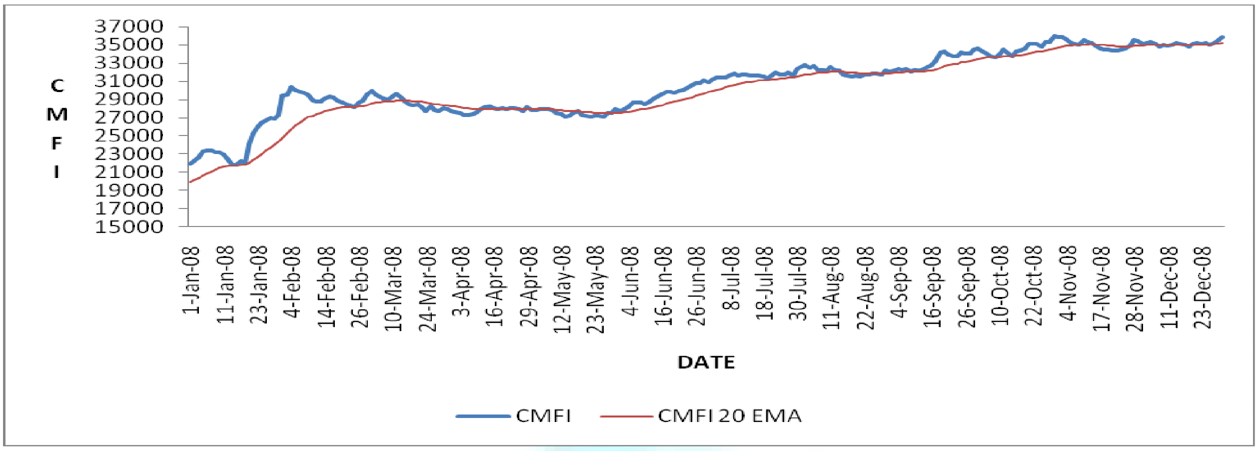


CHART 4.2 - CMFI AND 20 EMA OF CMFI



During January 15 to February 12, NIFTY remains below the 20 EMA but during the same time for CMFI, it was above the 20 EMA. So during this time, a high negative correlation (-0.63) was established between NIFTY and CMFI. So, here it is observed that a value of NIFTY is raised from 4929 to 5223 (around 6%) during February 13 to February 28. During March 3 to March 12, NIFTY remains below the 20 EMA and CMFI lies above for a few days and then it lies below its 20 EMA. During this time NIFTY and CMFI had a positive correlation (0.30). So, it is observed here that NIFTY falls down from 4624 to 4533 (around 2%) March 13 to March 18.

During April 15 to May 8, NIFTY lies above its 20 EMA but CMFI was consolidated near its 20 EMA. In this period, a negative correlation (-0.45) was established between NIFTY and CMFI. Here, it is observed that NIFTY falls down from 4982 to 4450 (around 11%) during May 9 to June 10. From May 22 to July 16, NIFTY lies below its 20 EMA and CMFI lies below 20 EMA in the initial stage and then it raises above its 20 EMA. During this period, a high negative correlation (-0.94) was established between NIFTY and CMFI. So, here it is observed that a value of NIFTY is raised from 3947 to 4620 (around 17%) during July 17 to August 11. During September 11 to December 8, NIFTY lies below its 20 EMA but CMFI is lies above its 20 EMA. Here the Chart represents that a high negative correlation (-0.73) was established between NIFTY and CMFI. From the chart it is observed that NIFTY increase from 2928 to 2959 during December 10 to December 31.

5. ANALYSIS FOR THE YEARS 2009

CHART 5.1 - NIFTY AND 20 EMA OF NIFTY

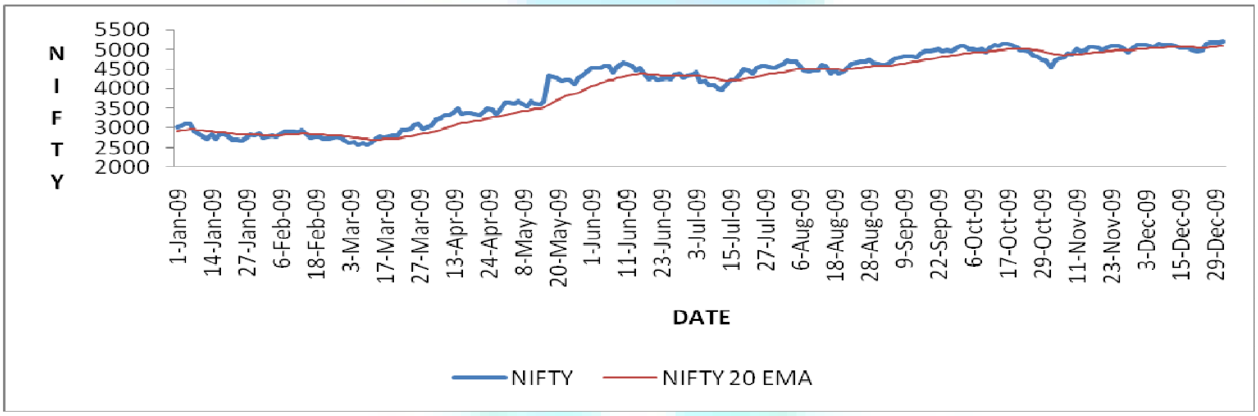
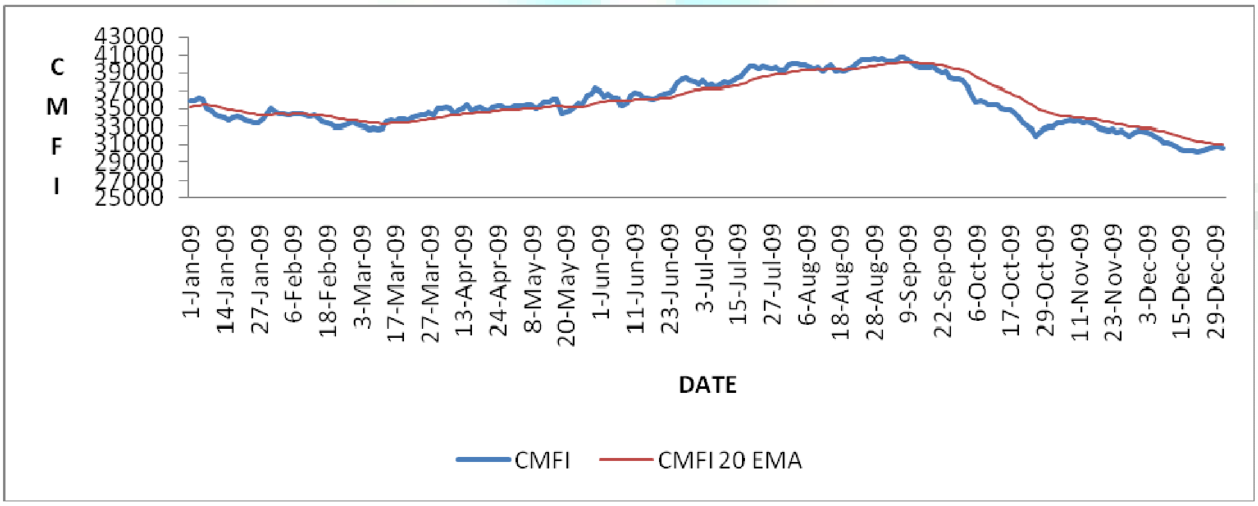


CHART 5.2 - CMFI AND 20 EMA OF CMFI



During March 16 to April 28, NIFTY and CMFI remains above their 20 EMA. So during this time, a positive correlation (+0.90) was established between NIFTY and CMFI. So, here one can observe a rise in the value of NIFTY from 3474 to 4638 (34%) during April 29 to June 11. During June 18 to June 30, a NIFTY lies below the 20 EMA but CMFI lies above its 20 EMA. During this time NIFTY and CMFI had a high positive correlation (0.60). So, it is observed here that NIFTY was lies downward from 4341 to 3974 (around 8%) during July 1 to July 13. During July 16 to August 6, NIFTY and CMFI remains above their 20 EMA. Thus, they are having high positive correlation (0.84). The chart shows that NIFTY lies upward from 4438 to 5142 (around 16%) during August 10 to October 16.During October

22 to November 6, NIFTY and CMFI remains below their 20 EMA, Thus, they are negatively correlated (-0.10). Here, it is observed that NIFTY is rises from 4898 to 5201 (around 6%) during from November 9 to 31 Dec.

6. ANALYSIS FOR THE YEARS 2010

CHART 6.1 - NIFTY AND 20 EMA OF NIFTY

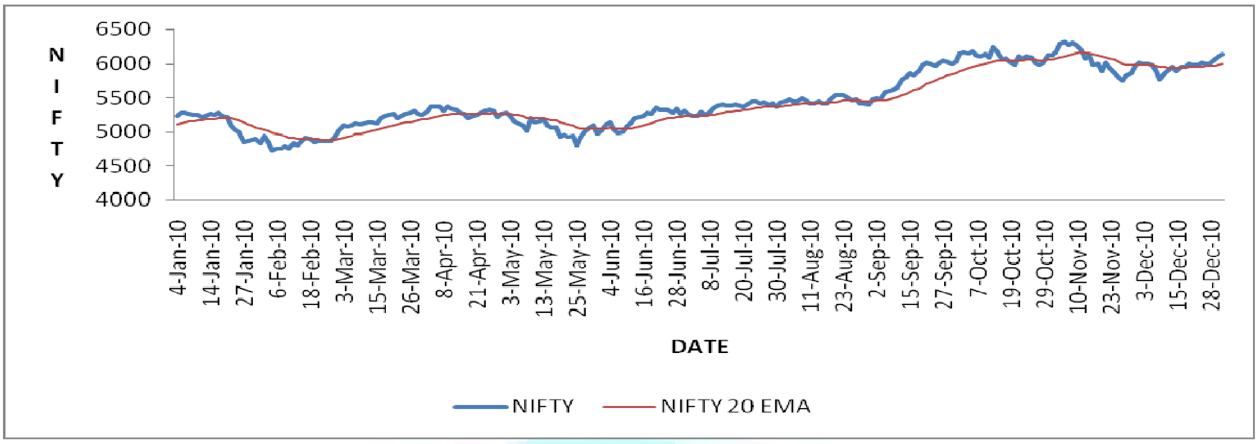
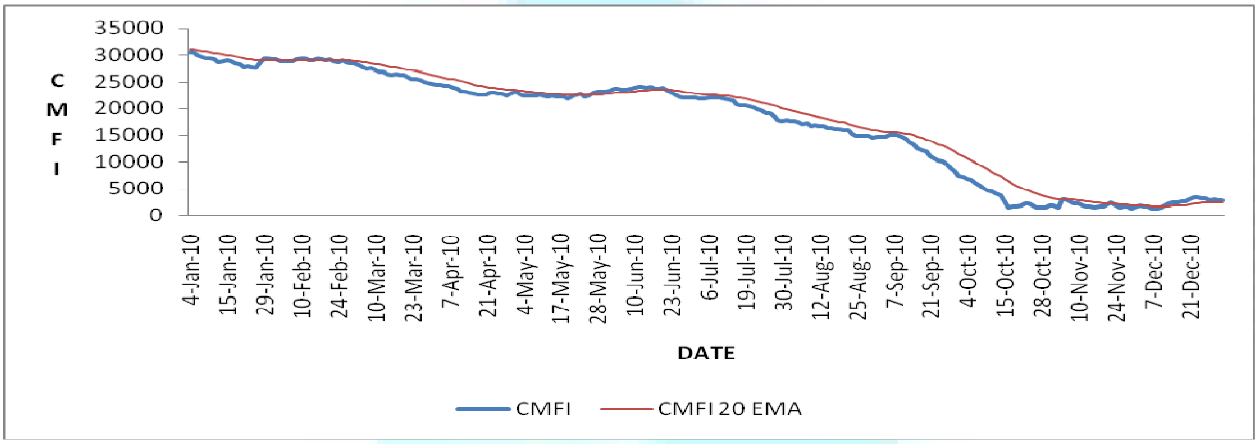


CHART 6.2 - CMFI AND 20 EMA OF CMFI



From January 19 to February 16, the value of NIFTY lies below its 20 EMA but CMFI lies below and then rises above its 20 EMA. During this period a negative correlation was identified between NIFTY and CMFI (-0.57). So, here it is observe that it leads to upward movement of NIFTY from 4914 to 5322 (8%) during the period 17 Feb to 13 Apr. From April 19 to May 7, the NIFTY and CMFI was lies below their respective 20 EMA. During this period NIFTY and CMFI had a positive correlation (0.79). So, one can observe a further fall in the value of NIFTY from 5018 to 4806 (around 4%) during May 7 to May 25. During May 31 to October 18, NIFTY remains above its 20 EMA but CMFI falls below its 20 EMA. In this period there was a high negative correlation (-0.95) existed between NIFTY and CMFI. Here it is known that Nifty falls from 6027 to 5767 (around 4%) during October 19 to December 9.

7. ANALYSIS FOR THE YEARS 2011

CHART 7.1 - NIFTY AND 20 EMA OF NIFTY

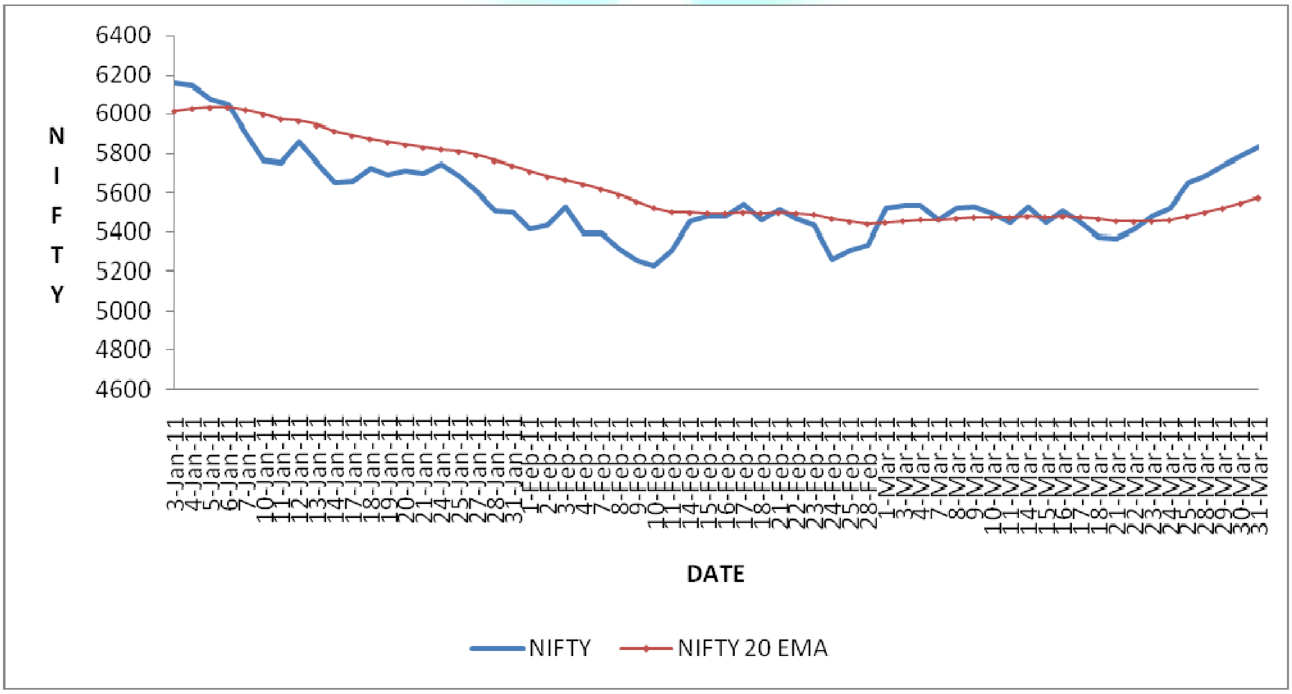
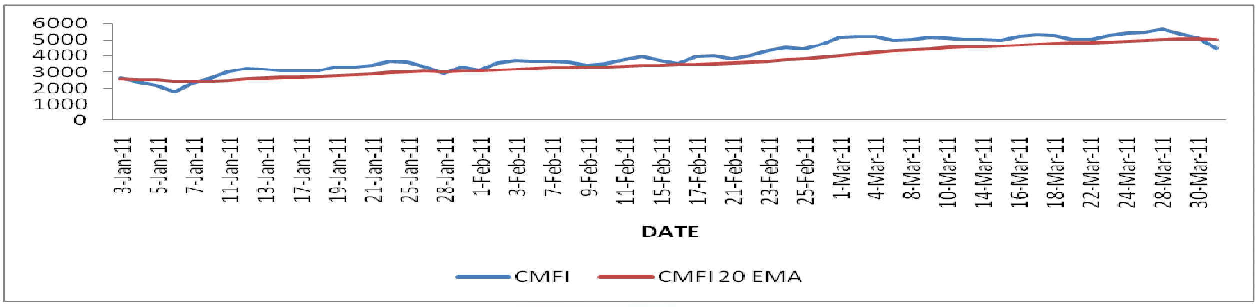


CHART 7.2 - CMFI AND 20 EMA OF CMFI



During January 7 to January 24, NIFTY lies below its 20 EMA but CMFI lies above its 20 EMA. Here NIFTY and CMFI are positively correlated (0.88). Hence, one can observe that there is a fall in NIFTY from 5687 to 5226 (around 8%) during January 25 to February 10.
During February 15 to February 24, NIFTY lies below its 20 EMA but CMFI lies above its 20 EMA. In this period, NIFTY and CMFI is correlated negatively (-0.71). Here, it is observed that there is a raise in NIFTY from 5304 to 5834 (around 10%) during February 25 to March 31.

FINDINGS

The major findings based on the above analysis are related with finding out the trend of NIFTY by analysis of daily trading activities of Mutual Funds as under:

TREND POSITION	CONDITION
Beginning of uptrend or trend reversal indication in case of downward trend	NIFTY goes above 20 EMA and a high negative correlation establishes between NIFTY and CMFI in the last downtrend.
Continuation of uptrend	NIFTY goes above 20 EMA for more than 3 sessions and NIFTY and CMFI positively correlated in existing upward trend.
Beginning of downtrend or trend reversal indication in case of uptrend	NIFTY goes below 20 EMA and a negative correlation establishes between NIFTY and CMFI in the last uptrend.
Continuation of downtrend	NIFTY goes below 20 EMA for more than 3 sessions and NIFTY and CMFI positively correlated in existing downward trend.
Non Trending Movement	Any condition other than above stated

CONCLUSION

People who are part of the stock market and investing are always talking about how they could really use a psychic to help them in reaping profit. Analyzing the trend of stock market is one of the most time consuming and grueling parts of being an investor or stockbroker. Most of their days are spent trying to predict the outcome of future days with the market. Thus by having an idea about this paper the investors can analyze the existing movement of the market with its comparative strength and one can also get the trend reversal indication well in advance with its strength of reversal. Overall this study gives a very good indication for confirming the short, middle and long term trend of the market before making any investment.

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VIABILITY OF ORGANIC PRODUCTS' BUSINESS AMONG THE NON-ORGANIC PRODUCT CONSUMERS – A DESCRIPTIVE STUDY

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ABSTRACT

Green revolution technologies such as greater use of synthetic agrochemicals like fertilizers and pesticides, adoption of nutrient-responsive, high-yielding varieties of crops, greater exploitation of irrigation potentials etc., has boosted the production output in most cases. However, continuous use of these high energy inputs indiscriminately now leads to decline in production and productivity of various crops as well as deterioration of soil health and environments. Therefore, for sustaining the productivity of the crop, maintaining the soil health and healthy ecosystem, there is need for adoption of an alternative farming system, may be the Organic Farming. The organic products available in the domestic market are rice, wheat, tea, coffee, pulses and vegetables. On the other hand, products available for export market, besides these, include cashew nuts, cotton, oilseeds, various fruits and medicinal herbs. Whereas wholesalers and traders, super markets and own shops are the major channels in the domestic market which is mainly in metropolitan cities and accounts for only 7.5 per cent of the total organic production, the market channel for export of organic products is export companies with the exception of tea which is produced and exported by tea estates. However, in the study area of Coimbatore City, the markets and shops for organic products are slowly coming due to the fact that many of the consumers are realizing the need and importance for using the organic products rather than non-organic products. Hence, it is of crucial importance to study the viability of organic products and its growth and development in terms of market share.

KEYWORDS
Organic farming, organic products, non-organic products, market, Consumers.

INTRODUCTION
India is the second most populous country in the world. With the increasing population the cultivable land resource is shrinking day to day. To meet the food, fibre, fuel, fodder and other needs of the growing population, the productivity of agricultural land and soil health needs to be improved. Green Revolution in the post independence era has shown path to developing countries for self-sufficiency in food but sustaining agricultural production against the finite natural resource base demands has shifted from the "resource degrading" chemical products to a "resource protective" biological or organic products.

Green revolution technologies such as greater use of synthetic agrochemicals like fertilizers and pesticides, adoption of nutrient-responsive, high-yielding varieties of crops, greater exploitation of irrigation potentials etc., has boosted the production output in most cases. However, continuous use of these high energy inputs indiscriminately now leads to decline in production and productivity of various crops as well as deterioration of soil health and environments. Therefore, for sustaining the productivity of the crop, maintaining the soil health and healthy ecosystem, there is need for adoption of an alternative farming system, may be the Organic Farming.

ORGANIC PRODUCTION
There are three types of organic producers in India – traditional organic growers who grow for their subsistence needs, commercial farmers who have surplus and export their produce through different channels, and private companies which either have their own farms or organize large conversion programmes with growers **(Yussef and Willer, 2003).**

In India, there are three main types of farmers engaged in organic production:

- Farmers who mostly follow the indigenous knowledge and technology developed over the past thousands of years. They normally grow for their own consumption and have little surplus.
- Farmers with small to medium sized holdings. These can be divided into two groups: those working to revive the Vedic practices, coupled with Ayurvedic tradition of health system with scientific exposition; and others who follow modern organic agriculture systems, like Steiner's biodynamic agriculture or Fukuoka's "nature farming", for example. They usually have market surplus and sometimes export their goods.
- Private companies that have responded to market demands in the North by organizing large scale conversions to organic systems. By going organic, they add more economic value to the crops, which are already cultivated in a manner similar to organic systems. They are actively engaged in promoting organic agriculture for export.

ORGANIC PRODUCES IN INDIA
Major organic produces in India include plantation crops i.e. tea, coffee, and cardamom, spices i,e. ginger, turmeric, chillies and cumin, cereals i.e. wheat, rice, jowar, and bajra, pulses i.e. pigeonpea, chickpea, green gram, red gram, and black gram, oilseeds i.e. groundnut, castor, mustard and sesame, fruits i.e. banana, sapota, custard apple and papaya, and vegetables i.e. tomato, brinjal, and other leafy vegetables, besides honey, cotton and sugarcane especially for jaggery (GOI, 2001). But, there is no organic production of meat products like poultry, livestock and fisheries in India as yet. In 2003, 5661 farms in India were certified as organic.

MARKETING STRATEGY FOR ORGANIC PRODUCTS
The role of organic agriculture in providing food and income is now gaining wider recognition due to growing markets for organic products **(Van Elzakker *et al* 2007).** The market of organic products is growing as the number of people willing to eat organic food and pay premium price is increasing. The future of organic agriculture will, to a large extent, also depend on consumer demand and their motive for paying extra price for organically grown food. Thus, a consumer-oriented approach to understanding the market for organic products is important for pursuing better management of organic farming. However, this is a complex process, which is determined by factors such as quality production, certification, infrastructure and market environment and policies **(Aryal, 2008).** It is also important to understand consumer decision-making regarding organically produced foods and seek strategies about how consumption can be promoted.

Production and marketing strategies are determined by consumer beliefs, attitudes, responses to organically grown products and the willingness to pay a premium price. Because organic products are credence goods, consumers may not know whether a product is produced using organic or conventional methods unless they are told so **(Giannakas, 2002).** Thus, awareness and knowledge about organically produced foods are critical in the consumer purchase decisions.

SIGNIFICANCE OF THE STUDY

The organic products available in the domestic market are rice, wheat, tea, coffee, pulses and vegetables. On the other hand, products available for export market, besides these, include cashew nuts, cotton, oilseeds, various fruits and medicinal herbs. Whereas wholesalers and traders, super markets and own shops are the major channels in the domestic market which is mainly in metropolitan cities and accounts for only 7.5 per cent of the total organic production, the market channel for export of organic products is export companies with the exception of tea which is produced and exported by tea estates. However, in the study area of Coimbatore City, the markets and shops for organic products are slowly coming due to the fact that many of the consumers are realizing the need and importance for using the organic products rather than non-organic products. Hence, it is of crucial importance to study the viability of organic products and its growth and development in terms of market share.

STATEMENT OF THE PROBLEM

With the advent of industrial and technological revolution, many machine made products, fast food products are occupying the major portion of the everyone's consumption pattern of the human life. This leads to health problems, environmental pollution, and other social evil effects. To overcome these crises, the consumable products and other food and beverages should go for natural production by eliminating the pesticide, chemical etc. It is possible only because of the production and distribution of large number of organic products rather than non-organic products. Hence, problem factor for the study has been formulated by raising the following questions keeping in mind:

- Whether the non-organic product consumers are aware about the organic products?
- Are the consumers of non-organic products are switch over to consume the organic products and willing to pay extra for organic products?
- Does the markets/shops for organic products are easily accessible or available at the nearest area in Coimbatore city?

OBJECTIVES OF THE STUDY

The present study is concerned with the following objectives:

1) To know the awareness about organic products among non-organic product consumers
2) To study the opportunity of organic products business among non-organic product consumers.
3) To examine the hindrances faced by the non-organic product consumers while buying the organic products.
4) To provide the valuable suggestions and recommendations to the dealers/ marketers of organic products for improving their marketability.

RESEARCH METHODOLOGY

It was decided that a descriptive study using primary data would be appropriate to investigate the objectives. The geographical area of Coimbatore city was chosen as the study area and the required data were collected through questionnaire. The main reason for choosing Coimbatore City is that the investigator is located here and sellers of organic products are gradually coming in this city. By using the random sampling method, totally 100 organic product consumers and 103 non-organic product consumers were identified as target group of respondents from this sampling area and the required data were collected. The collected data were analyzed using Chi-Square test, frequency analysis and descriptive statistics.

ANALYSIS AND INTERPRETATION

The data for the present study collected from the respondents through Questionnaire were tabulated and analyzed using appropriate statistical techniques mentioned in the research methodology. The objective-wise analyses of the study are presented in this section:

ANALYSIS ON THE ORGANIC PRODUCTS BUSINESS AMONG NON-ORGANIC PRODUCT CONSUMERS

In order to fulfill the objective of predicting the opportunity for organic products among the non-organic product consumers a separate questionnaire was developed and administered to the non-organic product consumers. The questionnaire consists of two parts which captures the awareness among the non-organic product consumers about organic products and the viability of organic products within this section of the society. Their responses were subjected to appropriate statistical tools and the results are tabulated in the following section:

AWARENESS ABOUT THE ORGANIC PRODUCTS AMONG NON-ORGANIC PRODUCT CONSUMERS

The respondents' awareness about the organic products and its advantages were captured using appropriate queries and analyzed using frequency and chi-square test. The results are tabulated in Tables 1 and 2

TABLE 1: AWARENESS ABOUT THE ORGANIC PRODUCTS

Sl No.	Awareness	Frequency	Percent	Chi-Square (Sig at 5% level)
1	Yes	77	74.8	25.252
2	No	26	25.2	df=1
	Total	103	100.0	p=0.000

It is evident from the Table 1 that although they are non-organic product consumers majority of the respondents (74.8%) are very well aware about the organic products and only a few number of respondents (26) do not have any idea about organic products. However, the results are significant as the chi-square value (25.252; p=0.000) is significant for 1 degree of freedom at 5% level of significance.

Consequently, the non-organic product consumers who are aware about organic products were queried about the advantages of using organic products. Their responses were subjected to frequency and chi-square analysis and the results are tabulated in Table 2.

TABLE 2: ADVANTAGES OF USING ORGANIC PRODUCTS

Sl No.	Advantages	Frequency	Percentage	Chi-Square (Sig at 5% level)
0	No	26	25.2	
1	Quality	14	13.6	
2	High Nutritious value	17	16.5	5.874
3	No Health Hazard	14	13.6	df=5
4	Benefit to the society	16	15.5	p=0.319
5	Others	16	15.5	
	Total	103	100.0	

The respondents have varied opinion about the advantages of using organic products as indicated by the insignificant chi-square value (5.874; p=0.319) for 5 degrees of freedom at 5% level of significance.

VIABILITY OF ORGANIC PRODUCTS AMONG NON-ORGANIC PRODUCT CONSUMERS

This part of the analysis discusses about the viability of organic products among non-organic product consumers. For this purposes, the respondents those who are non-organic product consumers were queried about the hindrances they face that prevents them from using organic products. The frequency analysis and test of significance using chi-square on their responses tabulated in Table 3.

TABLE 3: HINDERS TO BUY THE ORGANIC PRODUCTS

Sl No.	Hindrances	Frequency	Percentage	Chi-Square (Sig at 5% level)
1	There is no store nearby that sells organic products	25	24.3	2.971 df=4 p=0.563
2	High price	22	21.4	
3	No home delivery	23	22.3	
4	Availability of products	17	16.5	
5	Others	16	15.5	
	Total	103	100.0	

From the insignificant chi-square value (2.971; p=0.563) for 4 degrees of freedom, it is clear that the non-organic product consumers face varied problems that hinders them from using organic products. The foremost reason being non-availability of a store nearby that sells organic products as quoted by majority of the respondents (24.3%). The other reasons such as High price, No home delivery and Availability of products have equal contribution in the reason for not using the organic products by the non-organic product consumers.

Also, the majority (77.7%) of the non-organic product consumers have stated that they will definitely switch over to organic products if the above hindrances are rectified as portrayed in Table 4.

TABLE 4: WILLINGNESS TO BUY ORGANIC PRODUCTS WHEN HINDRANCES ARE RECTIFIED

Sl No.		Frequency	Percentage	Chi-Square (Sig at 5% level)
1	Yes	80	77.7	32.980 df=1 p=0.000
2	No	23	22.3	
Total		103	100.0	

Consequently, the non-organic product consumers who are willing to buy organic products were queried about the frequency of purchase. Their responses were captured and analyzed using frequency and chi-square test. The results are shown in Table 5.

TABLE 5: FREQUENCY OF PURCHASE OF ORGANIC PRODUCT

Sl No.	Frequency of purchase	Frequency	Percentage	Chi-Square (Sig at 5% level)
1	Always	48	46.6	15.864 df=2 p=0.000
2	Sometimes	39	37.9	
3	occasionally	16	15.5	
	Total	103	100.0	

It is apparent from the Table 5 that majority of the respondents (46.6%) will purchase organic products always if all the above said hindrances were rectified. Moreover, the significant chi-square value (15.864; p=0.000) for 2 degrees of freedom depicts that the result is significant at 5% level of significance.

This finding gives a clear picture that the organic product business will flourish in Coimbatore City even among the non-organic product consumers. This is further validated and proved by the following results about inclusion of organic products in the non-organic stores also which is tabulated in Table 6.

TABLE 6: AGREEABILITY FOR INCLUSION OF ORGANIC PRODUCTS IN THE NON-ORGANIC STORES

Sl No.	Opinion	Frequency	Percentage	Chi-Square (Sig at 5% level)
1	Yes	66	64.1	8.165 df=1 p=0.004
2	No	37	35.9	
	Total	103	100.0	

From the Table 6, it is clear that majority of the respondents (64.1%) will welcome the inclusion of organic products in the non-organic products stores.

Subsequently, the percentage of extra amount that can be spent for using organic products due its enormous advantages were enquired among the non-organic product consumers and treated with frequency and chi-square analysis and the results were tabulated in Table 7.

TABLE 7: WILLINGNESS TO PAY EXTRA AMOUNT FOR PURCHASE OF ORGANIC PRODUCTS

Sl No.	Willingness	Frequency	Percentage	Chi-Square (Sig at 5% level)
1	No extra	8	7.8	92.932 df=6 p=0.000
2	My monthly expenditure is already high	15	14.6	
3	An extra of 0-10% on my monthly food and grocery bill	14	13.6	
4	An extra of 11-20% on my monthly food and grocery bill	47	45.6	
5	An extra of 21-30% on my monthly food and grocery bill	13	12.6	
6	An extra of 31-50% on my monthly food and grocery bill	4	3.9	
7	An extra of above 51% on my monthly food and grocery bill	2	1.9	
	Total	103	100.0	

It is apparent form the Table 7 that majority of the respondents are ready to afford an extra amount of 11-20% of their monthly food and grocery bill for using organic products. This also further opens venue for organic product business among the non-organic product consumers.

FINDINGS AND SUGGESTION

MAJOR FINDINGS

Following are the major findings from the statistical analysis of the present study:

- Majority of the respondents (74.8%) are very well aware about the organic products and only a few number of respondents (26) do not have any idea about organic products.
- Majority of the respondents (16.5%) are of the opinion that organic products are more advantageous in terms of high nutritious value.
- The main hinders faced by the consumers of nom-organic products is that there is no stores selling the organic products nearby their residence.
- Majority of the non-organic product consumers (77.7%) are willing to consume the organic products and to become the regular consumers of organic products if the hindrances like non-availability of organic products in the store, high price, no home delivery, non-availability of exclusive organic products store etc., are rectified to buy the organic products.
- Majority of the respondents (46.6%) who are in the category of the consumers of the non-organic products would like to buy the organic products always if the organic products are available regularly in their nearby store with affordable price and home delivery facility.
- Majority of the respondents (64.1%) prefer to include the organic products in the non-organic products stores for sales.
- Majority of the respondents are ready to afford an extra amount of 11-20% of their monthly food and grocery bill for using organic products.

SUGGESTIONS AND RECOMMENDATIONS TO MARKETERS / DEALERS OF ORGANIC PRODUCTS

- Majority of the respondents felt that there is a non-availability of organic products in the non-organic products stores and non-availability of exclusive store for organic products. Hence, it is suggested to the marketers/dealers of organic products that the availability of the organic products with high quality and affordable price should be assured in the non-organic product stores. Further, more number of organic product store need to be kept open in and around of the Coimbatore City for the easy accessibility of both the organic and non-organic product consumers.
- Since majority of the respondents have opted to avail the home delivery of the organic products, the marketers/dealers are strongly suggested to take it as an effective tool in high end segment of the market for the organic products.
- The demand for organically produced goods is expected to grow in Coimbatore City due to the majority of the respondents' opinion that these products contain chemical free and natural content. Hence, it is suggested that the marketers/dealers of the organic products should offer their products which are affordable to the consumers. Also, some special discounts and coupons should be given to the customers to increase the sales.
- Since majority of the those who are in the category non-organic product consumers have opined that if the marketing hindrances are rectified they will definitely switch over to consume the organic products, it is strongly suggested that the marketing facilities such as easy accessibility of organic product, affordable price to the consumers, enhanced quality of the product etc., should be concentrated more by the marketers/dealers.

CONCLUSION

Though, the study area of Coimbatore City is well known for industrial place, even the consumers of non-organic products are prefer to buy the organic products due to the fact that these products are giving more health benefits. Moreover, the present study reveals that viability of organic products in Coimbatore City is enhanced with the value of social benefits as in terms of land fertility, keeping the environment with pesticide and chemical free and high nutritious value. This is validated by the majority of the respondents those are in the category of non-organic product consumers.

Thus, this study will contribute to a better conceptual understanding of perception of the organic and non-organic product consumers towards the viability of organic products in Coimbatore City. Meanwhile, the study can provide practical implications on how to formulate a better marketing and business policy to cover the wide segment of the customers and to fully utilize the advantages of the natural resources –Organic Products.

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EMPLOYEES PERCEPTION TOWARDS ENVIRONMENTAL CHALLENGES: AN EMPIRICAL STUDY ON VEDANTA LTD. IN ODISHA

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ABSTRACT

The present paper makes an attempt to understand the perception level of various levels of employees in Vedanta Ltd. specially, considering the environmental clearance problem faced by the Vedanta in Odisha in recent times. In this regard 180 questionnaires distributed to various levels of employees and out of this 84 response received. For this purpose 14 various attributes considered and survey conducted. The study finds that the almost all the employees aware of environmental problem and also its impact is felt at the organisation level. In this direction the damage control initiatives have been taken keeping the image in mind. However, we felt that for the industrial development, the environment ministry should find an alternative solution. For the purpose of confidentiality, we are not mentioning the units covered for survey; under the special request of the participants. Of course this was the pre-condition for the participation in our survey.

KEYWORDS

Happy employees, Perception level, Top level manager (TLM), Middle level managers (MLM), Subordinate Staff (SS).

INTRODUCTION

Industrialization and environmental issues cannot be separated from each other. Whenever the questions of industrialization arise, this follows the environmental issue. As we know no economy can grow without the industrialization development. However, at the same time in the name of the industrialization we cannot compromise the environment in the interest of our present and future generations. In recent time this subject seems to burning issue in all most all the states. Specially, during the regime of present environment ministry led by Shri. Jaya Ram Ramesh. The subject was also more in news during the period of Mrs. Menaka Gandhi, then environment minister of India. Considering the importance of the issue we tried to touch and experience the same with the employees of Vedanta Ltd. In our study, we have not tried to comment anything we attempted to present our field experience in this paper.

STATEMENT OF PROBLEM

Vedanta has been criticised by human rights and activist groups, including Survival International and Amnesty International, due to their operations in Niyamgiri Hills in Orissa, India that are said to threaten the lives of the Dongria Kondh that populate this region. The Niyamgiri hills are also claimed to be an important wildlife habitat in Eastern Ghats of India as per a report by the Wildlife Institute of India as well as independent reports/studies carried out by civil society groups. In January 2009, thousands of locals formed a human chain around the hill in protest at the plans to start bauxite mining in the area. Vedanta's Alumina Refinery in Lanjigarh was criticised by the Orissa State Pollution Control Board (the statutory environmental regulation body) for air pollution and water pollution in the area. According to Amnesty International, local people reported dust from the plant settling on clothes, crops and food. An environmental impact assessment by the government found dust pollution was within acceptable limits. Vedanta officials claimed there was no dust pollution from the plant at all. An environmental inspection of the plant reported water pollution by the plant including increasing the pH value of the river Vamshadhara below the refinery and a high level of SPM in the stack emissions. In October 2009 it was reported that the British Government has criticised Vedanta for its treatment of the Dongria Kondh tribe in Orissa, India. The company refused to co-operate with the British Government and with an OECD investigation. They have rejected charges of environmental damage, saying it may be related to the increased use of fertiliser by farmers.In 2007 unsafe mining operations led to 1,246 injuries and 26 deaths involving the group's employees and contractors.

In respect of bauxite mines at Lanjigarh, Orissa, public interest litigations were filed in 2004 by Indian non-government organisations led by the Peoples Union for Civil Liberties to the Supreme Court sub-committee regarding the potential environmental impact of the mines. The Ministry of Environment and Forests received reports from expert organizations and has submitted its recommendations to the Supreme Court.The sub-committee has found "blatant violations" of environmental regulations and grave concerns about the impact of the Niyamgiri mine on both the environment and the local tribal population. The committee recommended to the Court that mining in such an ecologically sensitive area should not be permitted. Considering the relevance of the topic to the general public the present research paper focused on Vedanta.

OBJECTIVE OF THE STUDY

- To know the awareness of the employees towards the present problem faced by Vedanta Ltd.and Odisha.
- To know the employees perception towards the various given attributes.
- Provide some suggestions to boost the morale of the employees.

LIMITATIONS OF THE STUDY

- The study is restricted to the selected units of the Vedanta in Odisha.
- The sample is limited; it may not represent the scenario of all the employees of Vedanta Ltd.
- The period of study conducted for the period of 3 months i.e. 1st Jan - 31st March 201

SAMPLING PLAN

In response to the objective of the research there is a primary research through questionnaire administration method in the field through random sampling method to analyze the data.

Category	***Questionnaire served***	***Response received***	***% of response to total response***
Top level managers (Male)	30	16	17.58
Top level managers (Female)	30	15	16.48
Middle level managers (Male)	30	19	20.88
Middle level managers (Female)	30	12	13.19
Subordinate Staff (Male)	30	16	17.58
Subordinate Staff (Female)	30	13	14.29
	180	91	100

RESPONDENTS' RESPONSE WITH REGARD TO VARIOUS ATTRIBUTES

To measure the perception level of the participants with regard to happy employees are productive employees, the various attributes identified are awareness about environmental challenges faced by the Vedanta Ltd., awareness about the objections raised by the environment ministry, sharing of information by the top management, crisis within Vedanta, affect of metal attitude while discharging the work, uncertainty among the employees, impact felt by relocation of some employees, fresh recruitment is not taking place, non absorption of campus placed students, all this because of political issue rather than environmental issues, its affect on the expansion policy, its affect on HR policy and leaving of some employees because of uncertainty. In this regard we have taken five point scale and assigned as +3, +2, +1, 0 and -1 for the response of the respondents such as " Strongly Agree", " Agree", " Neutral", " Disagree" and " Strongly Disagree" respectively. Final scores for each feature are calculated by multiplying the number of respondents by the weight of the corresponding response.

COMPUTATION OF RESPONDENTS' PERCEPTION: IDEAL AND LEAST SCORE

Ideal scores are calculated by multiplying the number of respondents in each category with (+3) and product with total number of attributes. Similarly, the least scores calculated by multiplying the number of respondents in each category with (-1) and the product with number of attributes in the questionnaires.

Category	Equation	Ideal score	Equation	Least score
Top level managers (Male)	16x14x3	672	16x14x-1	-224
Top level managers (Female)	15x14x3	630	15x14x-1	-210
Middle level managers(Male)	19x14x3	588	19x14x-1	-266
Middle level managers (Female)	12 x14x3	504	12 x14x-1	-168
Subordinate staff (Male)	16 x14x3	672	16 x14x-1	-224
Subordinate staff (Female)	13 x14x3	546	13 x14x-1	-182

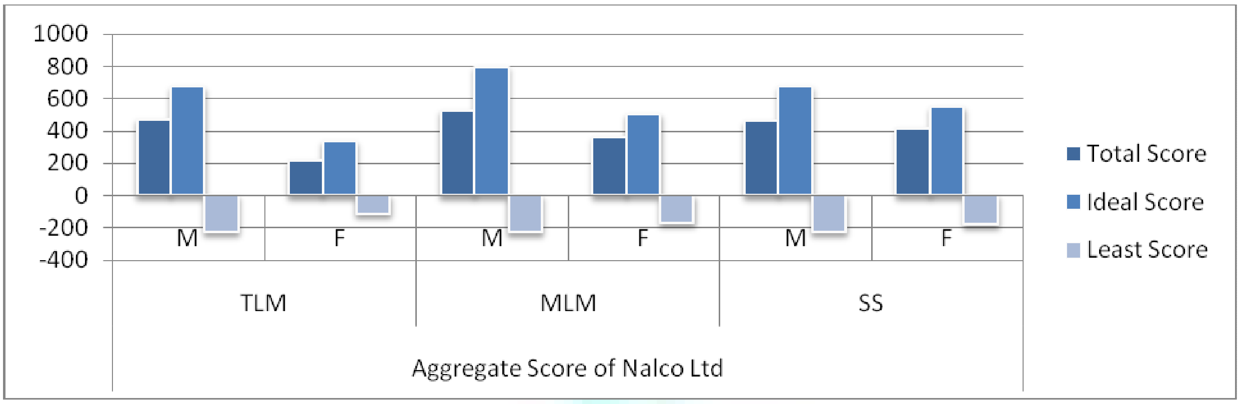
FINDINGS OF THE STUDY

Findings of the study are as under. The table is formed on the basis of questionnaire contained in questionnaires.

Various attributes	***Aggregate Score***					
	TLM		***MLM***		***SS***	
	M	***F***	***M***	***F***	***M***	***F***
Do you know the environmental challenge faced by the Vedanta?	39	18	47	25	33	33
Do you agree with the objections raised by the Environmental ministry?	33	14	39	24	32	29
Do your top management shares the information about the development?	32	13	38	29	33	28
Is there any crisis within Vedanta related to this issue?	29	19	37	28	31	21
Does it effects to your mental attitude while discharging the duty?	36	16	39	24	32	35
Do you agree that this creates an uncertainty among the employees?	37	15	45	30	31	31
Does its impact felt, as some of the employees relocated?	32	16	42	32	36	25
Do you agree that due to this no fresh recruitment is taking place?	37	17	35	27	42	27
Do you agree that its impact felt as those placed in campus recruitment have not absorbed by the company so far?	33	14	41	24	31	32
Do you agree all this because of political issue rather than environmental issue?	28	13	40	21	35	35
Do the Vedanta complies all the environmental issues?	35	15	47	23	34	30
Does it affect the expansion policy of Vedanta?	35	16	47	28	33	31
Does it affect the HR policy of the Vedanta?	34	16	48	25	28	30
Does some employees left the organisation because of uncertainty?	32	12	45	22	28	28
Total Score	472 **(70.24)**	214 **(33.96)**	527 **(66.04)**	362 **(71.83)**	459 **(68.30)**	415 **(76.57)**
Ideal Score	672	630	798	504	672	542
Least Score	-224	-210	-226	-168	-224	-182
No of respondents	16	15	19	12	16	13

Source: Annexure A, B, C, D, E & F

Note- TLM- Top Level Managers, MLM- Middle Level Managers, SS- Subordinate Staff, M-Male & F- Female



INTERPRETATION

In the present study the ideal scores for the Top Level Managers male and female, Middle Level Managers male and female and subordinate staff male and female are 672,630, 798, 504, 672 and 546 respectively. However, the total score for the same are 472, 214,527,362, 459 and 415. The percentage of total score to ideal score is higher in case of female subordinate staff with 76.57% and lower with female participants of top level manager. In no case the perception level is negative. Hence the hypothesis considered seems to be proved in the study. The exceptions in case of top level female managers may be due to their own understanding and view to the Vedanta issue.

CONCLUSION

Environment issues cannot be ignored in the name of industrialization. Both environment and industrialization are important for the very survival of mankind and economic development. However recent controversies involving Vedanta in Odisha has caused tremendous impact on the morale of the employees, which we had experienced in our survey. Recently the conditional approval allowed to the POSCO by the Environmental ministry in Odisha, which had also same problem. Considering the importance of environmental and industrialization issue a compromise acceptable approach should be adopted by the Vedanta and Environment ministry, so that it will not disturb the environment and at the same time the Vedanta project can be materialized in Odisha. It is the dream project of Mr. Anil Agarwal, the Chairman of Vedanta Resources and also it will contribute to the economic development of Odisha in general.

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ANNEXURES

ANNEXURE –A (16)

Attributes	*Response of Top Level Managers (Male)*					
	SAG	***AG***	***N***	***DAG***	***SDAG***	***Score***
	+3	***+2***	***+1***	***0***	***-1***	
Do you know the environmental challenge faced by the Vedanta?	10	4	1	1	0	39
Do you agree with the objections raised by the Environmental ministry?	8	4	2	1	1	33
Do your top management shares the information about the development?	9	3	1	1	2	32
Is there any crisis within Vedanta related to this issue?	7	5	1	0	3	29
Does it effects to your mental attitude while discharging the duty?	10	3	1	1	1	36
Do you agree that this creates an uncertainty among the employees?	11	2	1	1	1	37
Does its impact felt, as some of the employees relocated?	9	3	1	1	2	32
Do you agree that due to this no fresh recruitment is taking place?	10	3	1	2	0	37
Do you agree that its impact felt as those placed in campus recruitment have not absorbed by the company so far?	8	4	2	1	1	33
Do you agree all this because of political issue rather than environmental issue?	7	3	3	1	2	28
Do the Vedanta complies all the environmental issues?	9	4	1	1	1	35
Does it affect the expansion policy of Vedanta?	10	2	2	1	1	35
Does it affect the HR policy of the Vedanta?	11	1	1	1	2	34
Does some employees left the organisation because of uncertainty?	10	1	2	1	2	32

Source: Compiled from field survey

Note: SAG- Strongly Agree, AG- Agree, N- Neutral, DAG- Disagree & SDAG- Strongly disagree.

ANNEXURE –B (15)						
Attributes	***Response of Top Level Managers (Female)***					
	SAG	***AG***	***N***	***DAG***	***SDAG***	***Score***
	+3	***+2***	***+1***	***0***	***-1***	
Do you know the environmental challenge faced by the Vedanta?	5	1	1	8	0	18
Do you agree with the objections raised by the Environmental ministry?	4	1	1	8	1	14
Do your top management shares the information about the development?	3	2	1	8	1	13
Is there any crisis within Vedanta related to this issue?	4	3	1	7	0	19
Does it effects to your mental attitude while discharging the duty?	3	3	1	8	0	16
Do you agree that this creates an uncertainty among the employees?	4	1	1	9	0	15
Does its impact felt, as some of the employees relocated?	4	2	1	7	1	16
Do you agree that due to this no fresh recruitment is taking place?	5	1	1	7	1	17
Do you agree that its impact felt as those placed in campus recruitment have not absorbed by the company so far?	4	1	1	8	1	14
Do you agree all this because of political issue rather than environmental issue?	3	2	1	8	1	13
Do the Vedanta complies all the environmental issues?	4	1	2	7	1	15
Does it affect the expansion policy of Vedanta?	3	3	1	8	0	16
Does it affect the HR policy of the Vedanta?	5	1	0	8	1	16
Does some employees left the organisation because of uncertainty?	4	0	1	10	1	12

Source: Compiled from field survey

Note: SAG- Strongly Agree, AG- Agree, N- Neutral, DAG- Disagree & SDAG- Strongly disagree.

ANNEXURE –C (19)						
Attributes	***Response of Middle Level Managers (Male)***					
	SAG	***AG***	***N***	***DAG***	***SDAG***	***Score***
	+3	***+2***	***+1***	***0***	***-1***	
Do you know the environmental challenge faced by the Vedanta?	15	1	1	1	1	47
Do you agree with the objections raised by the Environmental ministry?	10	5	1	1	2	39
Do your top management shares the information about the development?	9	6	1	1	2	38
Is there any crisis within Vedanta related to this issue?	10	4	1	2	2	37
Does it effects to your mental attitude while discharging the duty?	11	3	2	1	2	39
Do you agree that this creates an uncertainty among the employees?	12	4	1	2	0	45
Does its impact felt, as some of the employees relocated?	10	5	2	2	0	42
Do you agree that due to this no fresh recruitment is taking place?	9	4	2	2	2	35
Do you agree that its impact felt as those placed in campus recruitment have not absorbed by the company so far?	10	5	2	1	1	41
Do you agree all this because of political issue rather than environmental issue?	11	4	1	1	2	40
Do the Vedanta complies all the environmental issues?	12	5	1	1	0	47
Does it affect the expansion policy of Vedanta?	13	4	1	0	1	47
Does it affect the HR policy of the Vedanta?	12	5	2	0	0	48
Does some employees left the organisation because of uncertainty?	11	6	1	0	1	45

Source: Compiled from field survey

Note: SAG- Strongly Agree, AG- Agree, N- Neutral, DAG- Disagree & SDAG- Strongly disagree.

ANNEXURE –D (12)						
Attributes	***Response of Middle Level Managers (Female)***					
	SAG	***AG***	***N***	***DAG***	***SDAG***	***Score***
	+3	***+2***	***+1***	***0***	***-1***	
Do you know the environmental challenge faced by the Vedanta?	7	2	1	1	1	25
Do you agree with the objections raised by the Environmental ministry?	7	1	2	1	1	24
Do your top management shares the information about the development?	8	2	1	1	0	29
Is there any crisis within Vedanta related to this issue?	8	2	1	0	1	28
Does it effects to your mental attitude while discharging the duty?	7	1	2	1	1	24
Do you agree that this creates an uncertainty among the employees?	9	1	1	1	0	30
Does its impact felt, as some of the employees relocated?	9	2	1	0	0	32
Do you agree that due to this no fresh recruitment is taking place?	8	1	1	2	0	27
Do you agree that its impact felt as those placed in campus recruitment have not absorbed by the company so far?	7	2	1	0	2	24
Do you agree all this because of political issue rather than environmental issue?	6	2	1	1	2	21
Do the Vedanta complies all the environmental issues?	5	4	1	1	1	23
Does it affect the expansion policy of Vedanta?	7	3	1	1	0	28
Does it affect the HR policy of the Vedanta?	7	2	1	1	1	25
Does some employees left the organisation because of uncertainty?	7	1	1	1	2	22

Source: Compiled from field survey

Note: SAG- Strongly Agree, AG- Agree, N- Neutral, DAG- Disagree & SDAG- Strongly disagree.

ANNEXURE –E (16)

Attributes	***Response of Subordinate staff (Male)***					
	SAG	***AG***	***N***	***DAG***	***SDAG***	***Score***
	+3	***+2***	***+1***	***0***	***-1***	
Do you know the environmental challenge faced by the Vedanta?	10	2	1	1	2	33
Do you agree with the objections raised by the Environmental ministry?	9	3	1	1	2	32
Do your top management shares the information about the development?	8	4	2	1	1	33
Is there any crisis within Vedanta related to this issue?	8	4	1	1	2	31
Does it effects to your mental attitude while discharging the duty?	7	5	2	1	1	32
Do you agree that this creates an uncertainty among the employees?	10	1	1	2	2	31
Does its impact felt, as some of the employees relocated?	11	1	2	1	1	36
Do you agree that due to this no fresh recruitment is taking place?	12	2	2	0	0	42
Do you agree that its impact felt as those placed in campus recruitment have not absorbed by the company so far?	10	1	1	2	2	31
Do you agree all this because of political issue rather than environmental issue?	9	4	1	1	1	35
Do the Vedanta complies all the environmental issues?	8	5	1	1	1	34
Does it affect the expansion policy of Vedanta?	7	6	1	1	1	33
Does it affect the HR policy of the Vedanta?	8	3	1	1	3	28
Does some employees left the organisation because of uncertainty?	9	1	2	1	3	28

Source: Compiled from field survey

Note: SAG- Strongly Agree, AG- Agree, N- Neutral, DAG- Disagree & SDAG- Strongly disagree.

ANNEXURE –F (13)

Attributes	***Response of Subordinate staff (Female)***					
	SAG	***AG***	***N***	***DAG***	***SDAG***	***Score***
	+3	***+2***	***+1***	***0***	***-1***	
Do you know the environmental challenge faced by the Vedanta?	10	1	1	1	0	33
Do you agree with the objections raised by the Environmental ministry?	9	1	1	1	1	29
Do your top management shares the information about the development?	8	2	1	1	1	28
Is there any crisis within Vedanta related to this issue?	7	1	1	1	3	21
Does it effects to your mental attitude while discharging the duty?	11	1	0	1	0	35
Do you agree that this creates an uncertainty among the employees?	9	1	2	1	0	31
Does its impact felt, as some of the employees relocated?	8	1	1	1	2	25
Do you agree that due to this no fresh recruitment is taking place?	8	1	2	1	1	27
Do you agree that its impact felt as those placed in campus recruitment have not absorbed by the company so far?	10	1	1	0	1	32
Do you agree all this because of political issue rather than environmental issue?	10	2	1	0	0	35
Do the Vedanta complies all the environmental issues?	8	2	2	1	0	30
Does it affect the expansion policy of Vedanta?	8	3	1	1	0	31
Does it affect the HR policy of the Vedanta?	8	3	1	0	1	30
Does some employees left the organisation because of uncertainty?	8	2	1	1	1	28

Source: Compiled from field survey

Note: SAG- Strongly Agree, AG- Agree, N- Neutral, DAG- Disagree & SDAG- Strongly disagree.

CASH CONVERSION CYCLE AND CORPORATE PROFITABILITY – AN EMPIRICAL ENQUIRY IN INDIAN AUTOMOBILE FIRMS

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ABSTRACT

The object of the research presented in this paper is to provide empirical evidence on the effect of Cash Conversion Cycle (CCC) on the profitability of a sample of 20 firms in Indian Automobile Industry for the period 1996-2009. The author tested the effects of CCC on corporate profitability together with other control variables like size, growth, leverage and GDP growth using multiple regression model. The results of the study demonstrate that managers can create value by reducing their accounts are outstanding. Moreover, shortening the CCC also improves the firms' profitability. The study also found that size, growth and GDP growth variables have positive relationship with profitability, whereas leverage have negative relationship with firms' profitability. The study contributes to the literature on the relationship between the cash conversion cycle and corporate profitability

KEYWORDS
profitability, Accounts Receivables Period, Inventory Conversion Period, Accounts Payable Period, Cash Conversion Cycle , Automobile industry and Liquidity analysis.

INTRODUCTION

In general, it is possible to discuss finance theory under three main threads as capital budgeting, capital structure and working capital management. The first two of them are mostly related with financing and managing long-term investments. However, financial decisions about working capital are mostly related with financing and managing short-term investments and undertake both current assets and current liabilities simultaneously. So, most of the time, it is reasonable to term short-term financial management as working capital management **(Ross et al., 2003).** A great deal of controversy has always been persisting over whether the working capital of a firm, as determined by its investment and financing decisions, affects its profitability. On this issue academicians are sharply divided into two schools of thought.

One school of thought argues that working capital is not a factor of enhancing profitability. Only fixed capital plays a very significant role in profit generating process. Moreover, they also opine that there may be a negative influence of working capital on profitability. The other school of thought considers the extent of fund invested in working capital as relevant to the profitability of the firm. They suggest that unless there is a minimum level of investment in the working capital, which provides a promising vehicle for improving profitability, output and sales can't be maintained. The inadequacy of working capital renders fixed assets inoperative, which results in reduction in profitability. In this sense, working capital acts as an explanatory variable in the profit function **(Mallick & Sur, 1998).**

Working capital management, which deals with the management of current assets and current liabilities, is very important in corporate finance because it directly affects the liquidity and profitability of the firm **(Deloof, 2003; Eljelly, 2004; Raheman and Nasr, 2007; Appuhami, 2008; Dash and Ravipathi, 2009).** The current assets of a typical manufacturing firm or even a distributing firm account for more than half of the firm's total assets. **Deloof (2003)** held that same proposition that the accounts receivables and inventories comprise a substantial percentage of the total assets of a firm. Excessive levels of current assets can easily result in a firm's realizing a substandard return on investment. However, firms with too few current assets may incur shortages and difficulties in maintaining smooth operations **(Van Horne and Wachowicz, 2005).**

Profitability is the rate of return on firm's investment. An unwarranted high investment in current assets would reduce this rate of return (V**ishnani, 2007**). The purpose of working capital management is to manage the firm's current accounts so as to attain a desired balance between profitability and risk **(Ricci and Vito, 2000). Shin and Soenen (1998)** found that efficient working capital management is an integral component of the overall corporate strategy towards creating shareholder value. Efficient working capital management involves planning and controlling the current assets and current liabilities in a manner that eliminates the risk of inability of a firm to meet due short term obligations and to avoid excessive investment in these assets on the other hand **(Eljelly, 2004). Smith (1980)** and **Raheman and Nasr (2007)** also observed that working capital management is important because of its effects on the firm's profitability and risk and consequently its value.

The way in which working capital is managed can have a significant impact on both the liquidity and profitability of the firm **(Deloof, 2003).** The decisions that tend to maximise profitability tend to minimize the chances of adequate liquidity. Conversely, focusing almost entirely on liquidity will tend to reduce the potential profitability of the firm. A firm can have larger sales with a generous credit policy, which extends the cash cycle. In this case, the longer cash conversion cycle may result in higher profitability. However, the traditional view of the relationship between cash conversion cycle and corporate profitability is that, ceteris paribus, a longer cash conversion cycle hurts the profitability of a firm **(Deloof, 2003; Smith, 1980).** This part of the study aimed at examining the influence of working capital management (liquidity) on corporate profitability in Indian Automobile Industry.

CONJECTURAL FRAME WORK

Liquidity management is necessary for all businesses, small, medium or large because it means collecting cash from customers in time so that having no difficulty in paying short-term debts. Therefore, when a business does not manage its liquidity well, it will have cash shortages and will results in difficulty in paying obligations. As a result, in addition to profitability, liquidity management is vital for ongoing concerns. Promoters of capital theory share the axiom that profitability and liquidity comprise the salient (albeit frequently conflicting) goals of working capital management. The conflict arises because the maximization of firm's returns could seriously threaten the liquidity and on the other hand, the pursuit of liquidity has a tendency to dilute returns. The crucial part in managing working capital is required maintaining its liquidity in day-to-day operation to ensure its smooth running and meets its obligation **(Eljelly, 2004).** Yet, this is not a simple task since managers must make sure that business operation is running in efficient and profitable manner. There are possibilities of mismatch of current assets and current liabilities during this process. If this happens and firm's manager cannot manage it properly then it will affect firm's growth and profitability. This will further lead to financial distress and finally firms can go bankrupt.

Corporate liquidity is examined from two distinct dimensions: static or dynamic view **(Lancaster et al., 1999; Farris and Hutchison, 2002: and Moss and Stine, 1993).** The static view is based on commonly used traditional ratios, such as current ratio and quick ratio, calculated from the balance sheet accounts. These traditional measures of liquidity are incompetent measures that cannot provide detailed and accurate about liquidity management effectiveness **(Jose et al., 1996).** These ratios measures liquidity at a given point in time. For example, the current ratio, are simple to apply and have some theoretical merit increases in say, accounts receivables will increase the current ratio, suggesting improved liquidity. However, the ability to match short-term obligations has only improved from a liquidation perspective providing current assets may be liquidated at current market value and not from a going-concern approach **(Shulman and**

Dambolena, 1986). Liquidity for the ongoing firm is not reliant on the liquidation value of its assets, but rather on the operating cash flow generated by these assets **(Soenen, 1993).**

On the other hand, dynamic view measures ongoing liquidity from the firm's operations. As a dynamic measure of the time it takes a firm to go from cash outflow to cash inflow which is measured by Cash Conversion Cycle (CCC) introduced by **Hager (1976)** and has been recommended by **Largay and Stickney (1980), Kamath (1989)** and others. Drawing attention to limitations of traditional liquidity ratios, **Richards and Laughlin (1980), Kamath (1989), Gentry et al., (1990), and Schilling (1996)** have insisted on using ongoing liquidity measures in working capital management. Ongoing liquidity refers to the inflows and outflows of cash through the as the product acquisition, production, sales, payment and collection process takes place overtime. As the firm's ongoing liquidity is a function of its cash (conversion) cycle, it will be more appropriate and evaluate effectiveness of working capital management by cash conversion cycle, rather than traditional liquidity measures.

CASH CONVERSION CYCLE (CCC)

In text books related to finance, CCC is maintained in the context of working capital management **(Keown et al., 2003; and Bodie and Merton, 2000).** The cash conversion cycle is used as a comprehensive measure of working capital as it shows the time lag between expenditure for the purchase of raw material and the collection of sales of finished goods **(Padachi, 2006; Bodie and Merton, 2009; Keown et al., 2003; Jordon, 2003; and Eljelly, 2004).**

CCC = RCP + ICP - APP

In the above formula, the three variables to which CCC is dependent are defined as follows;

RCP – Receivables Collection Period (in days)

(Accounts Receivables / Sales) * 365

ICP – Inventory Conversion period (in days)

(Inventory / Cost of goods sold) * 365

APP – Accounts Payable Period (in days)

(Accounts Payables / Cost of goods sold) * 365

There seems to be strong relation between the cash conversion cycle of a firm and its profitability. The three different components of CCC (accounts receivables, inventory and accounts payables) can be managed in different ways in order to maximise profitability. It is an indication of how long a firm can carry on if it was to stop its operations or it indicates the time gap between purchase of goods and collection of sales. The optimum level of inventory will have a direct effect on profitability since it will release working capital resources which in turn will be invested in the business cycle, or will increase inventory levels in order to respond to higher product demand. Similarly both credit policy from suppliers and credit period granted to customers will have an impact on profitability. In order to understand the way working capital is managed, CCC and its components will be statistically analysed.

Cash conversion cycle is likely to be negative as well as positive. A positive result indicates the number of days a company must borrow or tie up capital while awaiting payment from a customer. A negative result indicates the number of days a company has received cash from sales before it must pay its suppliers **(Hutchison et al., 2007).** Of course the ultimate goal is having low CCC, if possible negative. Because the shorter the CCC, the more efficient the company in managing its cash flow. The purpose of this part of analysis is to investigate the implications of the CCC as an indicator of liquidity on profitability of selected firms in Indian Automobile Industry.

LITERATURE REVIEW – THEORETICAL UNDERPINNINGS

Before embarking with the empirical study, a quick glance at the existing literature on the relationship between liquidity management and profitability is desirable. Literature review consisting some of previous studies regarding with the relationship between profitability and liquidity (working capital management) is given below.

In a study by **Kamath (1989),** it has been concluded that there is a reverse relationship between cash conversion cycle and profitability. In another study of **Shin and Soenen (1998),** a sample consisting of American manufacturing firms for the period of 1974-1995 has been analysed and a statistically negative relationship between cash conversion cycle and profitability has been confirmed. To test the relationship between working capital management and corporate profitability, **Deloof (2003)** used a sample of 1009 large Belgian non-financial firms for a period of 1992-1996. He discussed possible relationships between cash conversion cycle and profitability by dividing cash conversion cycle into its components (inventory, account receivables and account payables period). Results of the study have concluded that increase in all of these periods affect profitability negatively. **Lazaridis and Tryfonidis (2006)** conducted a cross sectional study by using a sample of 131 firms listed on the Athens Stock Exchange for the period of 2001-2004 and found cash conversion cycle affects profitability negatively.

Eljelly (2004) empirically examined the relationship between profitability and liquidity as measured by current ratio and cash conversion cycle on a sample of 929 Joint stock companies in Saudi Arabia. It has been concluded that the effect of cash conversion cycle on profitability is stronger than the effect of current ratio on it and found significant negative relationship between the firm's profitability and its liquidity level. **Raheman and Nasr (2007)** studied the effect of different variables of working capital management including cash conversion cycle on the profitability of 94 Pakistani firm listed on Karachi Stock Exchange for a period between 1999-2004 and found that as cash conversion cycle increases, it leads to decreasing profitability of the firm. **Garcia-Teruel and Martinez-Solano (2007)** collected data for 8872 SMEs from Spain for the period 1996-2002 and tested the effects of working capital management on profitability. The results demonstrated that shortening cash conversion cycle improves the profitability. **Falope and Ajilore (2009)** used a sample of 50 Nigerian quoted non-financial firms for the period 1996-2005. They found a significant negative relationship between net operating profitability and the average collection period, inventory turnover in days, average payment period and cash conversion cycle.

Mathuva (2009) examined the influence of working capital management components on corporate profitability by using a sample of 30 listed on the Nairobi-Stock Exchange (NSE) for the periods 1993 to 2008. He found that there exists a highly significant negative relationship between the time it takes for firms to collect cash from their customers and profitability. **Amarjit Gill, Nahum Biger and Neil Mathur (2010)** studied the relationship between the cash conversion cycle and profitability and found significant relationship between them. The other studies, **Ali Uyar (2009), Moss Stine (1993), Jose et al., (1996), Hutchison et al., (2007), Vaidyanathan et al., (1990), Lyroudi and McCarty (1993), Soenen (1993) and Wang (2002)** empirically examined the relationship between profitability and liquidity showed that there exists a significant and negative relation between profitability and CCC. However, the study conducted by **Katerina Lyroudi and Lazoridis (2000)** in the Food Industry of Greece found that there was positive relationship between CCC and return on assets.

Among the studies conducted in the Indian context showed both the positive and negative association between liquidity and profitability. **Amit K. Mallik, Debdas Rakshit (2005)** studied the relationship between liquidity and profitability in the context of Indian Pharmaceutical industry and concluded that no definite relationship can be established between liquidity and profitability. **Narware (2004)** in his study of working capital management and profitability of NFL, a fertilizer company disclosed both negative and positive association. **Bardia (2004)** in his study on steel giant SAIL for the period from 1991-92 to 2001-2002 concluded that there was a positive relationship between liquidity and profitability. **D. Sur, J. Biswas and Ganguly, P. (2001)** revealed in their study of Indian Aluminium producing industry, a very significant positive association between liquidity and profitability. **Vijayakumar and Venkatachalam (1995)** in their study on Tamil Nadu Sugar Industry with regard to relationship between liquidity and profitability concluded that liquidity was negatively associated with profitability.

In summary, the literature review indicates that working capital management impacts on the profitability of the firm but there still is ambiguity regarding the appropriate variables that might serve as proxies for working capital management. The present study investigates the relationship between a set of such variables and the profitability of a sample of Indian Automobile firms. Further, most of the Indian studies used traditional liquidity ratios viz., current and quick ratio as a measure of liquidity. Only a very few studies used Cash Conversion Cycle (CCC) as a measure for liquidity. Therefore, to fill this gap in the literature, as attempt has been made in this part to study the relationship between cash conversion cycle and profitability of Indian automobile firms. Thus, all the above

studies provided a solid base and gave an idea regarding working capital management (liquidity) and profitability. They also gave the results and conclusions of those researches already conducted on the same area for different countries and environment from different aspects. On the basis of these researches done in different countries, methodology has been formulated.
From the above reviews, the researcher concludes the most of the studies support the general notion that there is a negative relationship between liquidity and profitability. In order to test this general notion, the researcher postulates the following hypothesis
"Firms liquidity negatively affects profitability"

VARIABLES SPECIFICATIONS AND EMPIRICAL MODEL

The primary aim of this part of analysis is to investigate the impact of working capital management (liquidity) on corporate profitability of Indian automobile firms. This is achieved by developing a similar empirical framework first used by **Shin and Soenen (1998)** and the subsequent work of **Deloof (2003).** The analysis of data employs the use of correlation and a multiple regression model that consists of both liquidity and profitability. For this purpose, four different models using the various components of liquidity and profitability are considered. This helps analyzing changes in the results due to different measures of liquidity and profitability.

THE EXPLANATORY VARIABLES

This study investigates the effects of accounts receivables period, inventory conversion period, accounts payables period and cash conversion cycle on firms profitability. The dependent variable of the regression model is return on assets (PR). Many researchers use different measures of firm profitability in their analysis. Among, return on assets **(Zelia Serrasqueiro, 2009; Kuldip Kaur and Kushwinder Kaur, 2008)** and return on sales **(Samuels and Smyth, 1968; Vijayakumar, 2002)** are widely used measure of profitability. Among these two measures the return on assets is a better measure since it relates the profitability of the business to the asset base. There are many ways of managing return on assets but, in principle, key levers are, of course, profit increase and assets reduction. The later has become important to many businesses as the former becomes more elusive.
Accounts Receivables Period (ARP) used as proxy for the collection policy is an independent variable obtained as accounts receivables/sales*365. Inventory Conversion Period (ICP) used as proxy for the inventory policy is also an independent variable derived as inventory/cost of sales*365. Average Payment Period (APP) used as proxy for the payment policy is also an independent variable. It is calculated by dividing accounts payable by purchases and multiplying the result by 365. The Cash Conversion Cycle (CCC) used as a comprehensive measure of liquidity is another independent variable, and is measured by adding ARP to ICP and then subtracting the APP. All the above variables have relationship that ultimately affects liquidity of the firm. It is expected that there is a negative relationship between profitability on the one hand and the measures of liquidity (number of days accounts receivables, inventory and accounts payables and cash conversion cycle) on the other hand. This is consistent with the view that the time lag between expenditure for the purchase of raw materials and the collection of sales of finished goods can be too long, and that decreasing the time lag increases profitability.

CONTROL VARIABLES

In various literature reviews, various studies have used the control variables along with the main variables of liquidity (working capital) in order to have an opposite analysis of working capital management on the profitability of firms **(Lamberson, 1995; Smith and Begemann, 1997; Deloof, 2003; Eljelly, 2004; Teruel and Solano, 2005 and Lazaridis and Tryfonidis, 2006).** On the same lines, along with working capital variables, the present study has taken into considerations some control variables relating to firms such as the size of the firm, the growth in its sales and its financial leverage. The size of the firm (SIZE) has been measured by the natural logarithm of its total sales. The growth of the firm (GROWTH) is measured by variations in its annual sales value with reference to previous year's sales [$(sales_t - sales_{t-1})/sales_{t-1}$]. Moreover, the financial leverage (LEV) was taken as the debt to equity ratio of each firm for the whole sample period. Finally, since good economic conditions tend to be reflected in a firm's profitability **(Lamberson, 1995),** this phenomenon has been controlled for the evolution of the economic cycle using the GDPGR variable, which measures the real annual GDP growth.
Table 1 below summarises the definitions and theoretical predicted signs.

TABLE 1: PROXY VARIABLES DEFINITION AND PREDICTED RELATIONSHIPS

Proxy variables	Definitions	Predicted Sign
ARP	Account receivables divided by sales and multiplied by 365 days	+/-
ICP	Inventory divided by cost of goods sold and multiplied by 365 days	+/-
APP	Accounts payables divided by cost of goods sold and multiplied by 365 days	+/-
CCC	No. of days A/R plus No. of days of IC minus No. of days A/P	+/-
Size	Natural logarithm of firm's sales	+/-
Growth	Difference between current year sales and previous year sales divided by previous year sales	+/-
Leverage	Total debt divided by equity	-
GDPGR	Difference between current year GDP and previous year GDP divided by previous year GDP	+

EMPIRICAL MODELS

The study uses panel data regression analysis of cross-sectional and time series data. The pooled regression is one where both intercepts and slops are constant, where the cross-section firm data and time series data are pooled together in a single column assuming that there is no significant cross-section or temporal effects.
The general form of model is

n

$$PR_{it} = \beta_0 + € \beta_i X_{it} + e$$

α_{it}

where PR_{it} - Return on assets of firm i at time t;
i = 1, 2, 3….., 20 firms
β_0 - The intercept of equation
β_i - Co-efficients of X_{it} variables
X_{it} - The different independent variables for working capital management of firms i at time t
t - Time = 1, 2, 3, ……
e - The error term
To investigate the impact of working capital management (liquidity) on profitability the model used for the regression analysis is expressed in the general form as given above and the variable ARP will be replaced in turn by the other explanatory variables: ICP, APP and CCC. Specifically, when convert the above general least squares model into specified variables it becomes:

$$PR_{it} = \beta_0 + \beta_1 ARP_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \beta_5 GDPGR_{it} + e_{it}$$
[Model 1]
$$PR_{it} = \beta_0 + \beta_1 ICP_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \beta_5 GDPGR_{it} + e_{it}$$
[Model 2]
$$PR_{it} = \beta_0 + \beta_1 APP_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \beta_5 GDPGR_{it} + e_{it}$$
[Model 3]
$$PR_{it} = \beta_0 + \beta_1 CCC_{it} + \beta_2 SIZE_{it} + \beta_3 GROWTH_{it} + \beta_4 LEV_{it} + \beta_5 GDPGR_{it} + e_{it}$$
[Model 4]
$$PR_{it} = \beta_0 + \beta_1 ARP_{it} + \beta_2 ICP_{it} + \beta_3 APP_{it} + \beta_4 SIZE_{it} + \beta_5 GROWTH_{it} + \beta_6 LEV_{it} + \beta_7 GDPGR_{it} + e_{it} \quad \textbf{[Model 5]}$$

Where,
PR - Measures the firm profitability with gross profit as a percentage of total assets for firm (i) in the year (t).
ARP - Accounts Receivables Period for firm (i) in the year (t).
ICP - Inventory Conversion Period for firm (i) in the year (t).
APP - Accounts Payable Period for firm (i) in the year (t).
CCC - Cash Conversion Cycle for firm (i) in the year (t).
Size -Natural logarithm of firm's sales for firm (i) in the year (t).
Growth -Growth of firm's sales for firm (i) in the year (t).
Leverage -Measures the leverage with debt to equity for firm (i) in the year (t).
GDPGR -Measures the growth of GDP for firm (i) in the year (t).
β_0-Constant term for firm (i) in the year (t).
β_1, β_2….-Regression Co-efficient.
e-disturbance term for firm (i) in the year (t).

RESEARCH DESIGN

Keeping in view the scope of the study, it is decided to include all the companies under automobile industry working before or from the year 1996-97 to 2008-09. There are 26 companies operating in the Indian automobile industry. But, owing to several constraints such as non-availability of financial statements or non-working of a company in a particular year etc., it is compelled to restrict the number of sample companies to 20. The companies under automobile industry are classified into three sectors namely; Commercial vehicles, Passenger cars and Multiutility vehicles and Two and three wheelers. For the purpose of the study all the three sectors have been selected. It accounts for 73.23 per cent of the total companies available in the Indian automobile industry. The selected 20 companies include 5 under commercial vehicles, 6 under Passenger cars and Multiutility vehicles and 9 under two and three wheeler sectors. It is inferred that sample company represents 98.74 percentage of market share in commercial vehicles, 89.76 percentage of market share in passenger cars and Multiutility vehicles and 99.81 percentage of market share in two and three wheelers. Thus, the findings based on the occurrence of such representative sample may be presumed to be true representative of automobile industry in the country.
The study is mainly based on secondary data. The major source of data analysed and interpreted in this study related to all those companies selected is collected from "PROWESS" database, which is the most reliable on the empowered corporate database of Centre for Monitoring Indian Economy (CMIE). Besides prowess database, relevant secondary data have also been collected from BSE Stock Exchange Official Directory, CIME Publications, Annual Survey of Industry, Business newspapers, Reports on Currency and Finance, Libraries of various Research Institutions, through Internet etc.

RESULTS AND DISCUSSION

In Table 2, the summary statistics of the variables included in the regression models are presented. All the variables were calculated using balance sheet (book) values. The book values are used because the companies did not provide any market value related to the variables used in this study. In addition, the measurement of profitability could only be based on income statement values, not on so-called market values. The explanatory variables are all firm specific quantities and there is no way to measure these variables in terms of their 'market value'. Furthermore, when market values are considered in such studies, there is always a rather legitimate question of the date for which the 'market values' refer. This is rather arbitrary. Hence, the study relied on 'book values' as of the date of the financial reports.
Descriptive statistics shows the mean and standard deviation of the different variables of interest in the study. It also presents the standard error of mean, median, minimum and maximum values, kurtosis and skewness of the variables. Table 2 presents descriptive statistics for 20 Indian automobile companies for the period of 13 years from 1996-97 to 2008-09 and for a total 216 companies year observations. Overall, the mean profit rate on total assets is 22.29 per cent with the standard deviation of 105.3 per cent. It means that value of the profitability (profit rate on total assets) can deviate from mean to both sides by 105.3 per cent. The maximum value for the profit rate on total assets is 1638.9 per cent for a company in a year while the minimum is -189.4 per cent.
Indian automobile companies receive payment against sales after an average of 37 days (approximately more than one month) and standard deviation is 38 days. Minimum time taken by a company to collect cash from receivables is 0.31 days which is unusual, and maximum time taken for this purpose is 326 days (approximately ten months). On average, Indian automobile companies takes 75 days (approximately two and half months) to convert their inventories in to sales with standard deviation of 62 days. Here, maximum time taken by a company is 730 days, which is a very large time period to convert inventory in to sales. Companies wait on average 80 days to pay their purchases with standard deviation of 85 days. Here, minimum time taken by a company is 0.00 days which is unusual, and maximum time taken for this purpose is 1018 days. The mean cash conversion cycle is 30 days (approximately one month) with the standard deviation of 66 days, implying that Indian automobile companies turnover their stock on an average of 12 times a year.
To check the size of the company and its relationship with profitability, natural logarithm of sales is used as a control variable. The mean value of log of sales is 6.90 while the standard deviation is 1.70. The maximum value of log of sales for a company in a year is 10.39 and the minimum is 0.92. In the same way to check the growth of the company and its relationship with profitability, sales growth is used as a control variable. The average growth of sales for Indian automobile companies is 10.60 per cent with a standard deviation of 36.83 per cent. The highest growth of sales for a company in a particular year is 356.66 per cent and in the same way the minimum growth of sales for a company in a year is -97.62 per cent.
To check the leverage and its relationship with the profitability, the debt ratio (obtained by dividing the total debt of the company by the equity) is used as a control variable. The results of the descriptive statistics show that the average leverage ratio for the Indian automobile companies is 1.33 with a standard deviation of 3.12. The maximum debt financing used by a company is 41.37, whereas the minimum level of the debt ratio is 0.00 which is unusual but may be possible. To check the GDP growth and its relationship with the profitability, GDP growth rate is used as a control variable. The mean value for this ratio is 12.73 per cent with a standard deviation of 3.41 per cent. The maximum GDP growth during the study period is 16.92 per cent and the minimum is 7.76 per cent.

PEARSON'S CORRELATION CO-EFFICIENT ANALYSIS

Consistent with **Shin and Soenen (1998)**, Table 3 provides the Pearson correlation for the variables used in the regression model. Pearson's correlation analysis is used for data to see the relationship between variables such as those between liquidity (working capital management) and profitability. If efficient working capital management increases profitability, one should expect a negative relationship between the measures of working capital management and profitability variable. There is a negative relationship between gross profitability on the one hand and the measures of working capital management on the other hand. This is consists with the view that the time lag between expenditure for purchases of raw material and the collection of sales of finished goods can be too long, and that decreasing this time lag increases profitability.

Table 3 shows that the profitability is negatively related to ARP. The negative relationship of profitability and ARP is consistent with the view that the less time taken by the customer to pay their bills, the more cash is available to replenish the inventory hence leading to more sales which results to an increase in profitability. The table also shows that the profitability is negatively related to ICP. The negative relationship between profitability and ICP can be explained by the fact that firms takes more time in selling inventory, it will adversely affect its profitability due high amount of holding cost. The positive relationship between profitability and APP can be explained by the fact that lagging payments to suppliers ensures that the firm has some cash to purchase more inventory for sales thus increasing its sales levels hence boosting its profits. The negative relationship between profitability and CCC is consistent with the view that the time lag between the expenditure for the purchases of raw materials and the collection of sales of finished goods can be too long and that decreasing the time lag increases profitability **(Deloof, 2003)**.

Firm size is positively related to profitability. This means that larger firm report higher profits compared to smaller firms. This may be due to larger firm's ability to exploit their economies of scale. Growth, which could be an indicator of a firm's business opportunities, is an important factor allowing firms to enjoy improved profitability, as can be seen in the positive sign for the variable SGROWTH. With reference to other control variables, leverage and GDPG, profitability is negatively associated with leverage whereas profitability is positively associated with GDPG. Thus, by analyzing the results it is concluded that if the firm is able to reduce these time periods, then the firm is efficient in managing working capital (liquidity). This efficiency will lead to increasing its profitability. The results of correlation analysis indicate that as far as Indian automobile companies are concerned, the liquidity management very significantly and strongly affects their profitability.

REGRESSION ANALYSIS

Although, Pearson linear correlations give proof of an inverse relationship between profitability and CCC, these measures do not allow us to identify causes from consequences **(Shin and Soenen, 1998)**. It is hard to say whether a shorter accounts collection period leads to higher profitability or a higher profitability is a result of short accounts receivable period. This means therefore that, care must be exercised while interpreting the Pearson correlation co-efficient because they cannot provide a reliable indicator of association in a manner which controls for additional explanatory variables. Examining simple bivariate correlation in a conventional matrix does not take account of each variable's correlation with all other explanatory variables **(Padachi, 2006)**. The main analysis will be derived from appropriate multivariate models estimated using the overall least squares regression models.

To assess the effects of liquidity on the firm's profitability, the firm's profitability is modelled as a function of the four liquidity measures such as ARP, ICP, APP and CCC in addition to other firm characteristics. The model specifies above is estimated using the regression based framework (pooled OLS) as employed by **Deloof (2003), Raheman and Nasr (2007), Garcia Teruel and Martinez-Solano (2007), Padachi (2006), David M. Mathuva (2009) and Amarjit Gill et al., (2010)**. In the first regression model, the ARP has been regressed against the profitability. In the second regression model, the ICP has been regressed against the profitability. The third regression model involves a regression of the APP against the profitability. In the fourth regression model, the CCC is regressed against the profitability. The fifth regression model involves the regression of ARP, ICP and APP against profitability In all the above said five regression models, firm size, growth, leverage and GDP growth have been incorporated to control for firm characteristics. Table 4 report the pooled OLS regression results of the overall relationship which exists between working capital management (liquidity) and profitability.

RELATIONSHIP BETWEEN ACCOUNTS RECEIVABLE PERIOD (ARP) AND PROFITABILITY

The results of the regression (Model 1) of ARP with profitability along with other control variables presented in Table 4. The results of this regression indicate that, consistent with **Deloof (2003), Raheman and Nasr (2007), Shin and Soenen (1998), Garcia-Teruel and Martinez-Solano (2007) and David M. Mathuva (2009)** a negative and significant relationship exists between the ARP and Profitability in the Indian Automobile Industry. This result suggests that firms can improve their profitability by reducing the number of days accounts receivables are outstanding. The result can also be interpreted as the less the time it takes for customers to pay their bills, the more cash is available to replenish inventory hence the higher the sales realized leading to higher profitability of the firm. The negative coefficient on the ARP suggests that an increase in the number of days accounts receivable by 1 day is associated with a decline in profitability. Consistent with **Lazaridis and Tryfonidis (2006),** this finding implies that managers can improve profitability by reducing the credit period granted to their customers. This finding implies that a more restrictive credit policy giving customers less time to make their payments improves performance. The model also shows that profitability increases with firm size (as measured by natural logarithm of sales).The results of the regression indicate that the coefficient of growth (as measured by growth of sales) on profitability showed significant and positive relationship with profitability. The study used the debt ratio (measured by debt divided by equity) as a proxy for leverage, it shows a negative relationship with the profitability. This means that, when the leverage of the firm increases, it will adversely affect its profitability. Similarly, GDP growth of the country showed a significant positive relationship with profitability. It reflects that if the country's GDP increases, the profitability of Indian Automobile Industry will also increases. The model's adjusted R^2 is 69 per cent with an F-value of 6.24 which is significant($p<0.05$). The Durbin Watson statistic is 1.49.

RELATIONSHIP BETWEEN INVENTORY CONVERSION PERIOD (ICP) AND PROFITABILITY

In Model 2, regression is run using Inventory Conversion Period (ICP) in days as an independent variable as a replacement for Accounts Receivables Period (ARP). The other variables are the same as they have been in the first regression. The result of the regression model is presented in Table 4. It is evident from the table that the co-efficient of inventory conversion period in days is negative in Indian automobile industry. Consistent with **Raheman and Nasr (2007) and Lazaridis and Tryfonidis (2006)** a negative relationship exist between Inventory Conversion Period (ICP) and profitability. This result suggests that the increase or decrease in the ICP in days affects profitability of the firm. It can be interpreted that if the inventory takes more time to sell, it will adversely affect profitability. The co-efficient on the other control variables are significant as in case of first regression model. The firm size is positively related to profitability and this is significant at 5 per cent level. The results of the regression also showed that growth of sales is positively related to firm's profitability. Similarly, the results showed that use of leverage have negative impact on firm's profitability. Further, the GDP growth of country is positively related to firm's profitability. The model's adjusted R^2 is 75 per cent with an F-value of 8.11 which is significant($p<0.01$). The Durbin Watson statistic is 1.79.

RELATIONSHIP BETWEEN AVERAGE PAYMENT PERIOD (APP) AND PROFITABILITY

The third regression is run using the Average Payment Period (APP) as an independent variable as a substitute of Inventory Conversion Period (ICP) in days. The other control variables are same as they have been in first and second regression. The results of the regression model are presented in Table 4. In model 3, the co-efficient on the average payment period is positive and significant. This suggests that an increase in the number of days accounts payable by 1 day is associated with an increase in profitability. The positive relationship can be explained in two ways. First, contrary to **Deloof (2003) and Raheman and Nasr (2007)**, this finding holds the more profitable firms waits longer to pay their bills. This implies that they withhold their payment to suppliers so as to take advantage of the cash available for their working capital needs. Second, this results makes economic sense in that the longer a firm delays its payments to its creditors, the higher the level of working capital levels it reserves and uses in order to increase profitability. This finding is in line with the working capital management rule that firms should strive to lag their payments to creditors as much as possible, taking care not to spoil their business relationship with them. Consistent with the other models, firm size, growth and GDP growth being positively related to profitability. Whereas an increase in the use of debt decreases profitability. The model's adjusted R^2 is 70 per cent with an F-value of 6.66 which is significant($p<0.01$). The Durbin Watson statistic is 1.76.

RELATIONSHIP BETWEEN CASH CONVERSION CYCLE (CCC) AND PROFITABILITY

In fourth regression model, cash conversion cycle is used as an independent variable instead of ARP, ICP and APP. The other variables are kept the same as they were in first three regressions. The results of the fourth regression model are presented in Table 4. Consistent with **Deloof (2003), Raheman and Nasr (2007), Shin and Soenen (1998), Garcia-Teruel and Martinez-Solano (2007), Padachi (2006) and David M. Mathuva (2009)**, a negative relationship exists between the Cash Conversion Cycle (CCC) and profitability. This supports the notion that the ccc is negatively related with profitability. **Shin and Soenen (1998)** argued that the negative relation between profits and the cash conversion cycle could be explained by the market power or the market share, i.e., a shorter ccc because of bargaining power by the suppliers and/ or the customers as well as higher profitability due to market dominance. The negative relationship between the firm's ccc and profitability can also be explained by the fact that minimizing the investment in current assets can help in boosting profits. This ensures the liquid cash is not maintained in the business for long and that it is use to generate profits for the firm. The all other control variables showed similar findings as in the case of first three regression equations and significantly affecting profitability. The model's adjusted R^2 is 66 per cent with an F-value of 5.65 which is significant($p<0.05$). The Durbin Watson statistic is 1.47.

Model 5 acts as a control model for the variables under study. The model was run so as to provide an indicator as to the most significant variables affecting the study. The model shows that all the variables included are significant. In this model, the ARP, ICP and Leverage are negatively related with firms' profitability while APP, Size, Growth and GDP Growth variables exhibit a positive relationship. The model's adjusted R^2 is 80 per cent with an F-value of 7.71 which is significant($p<0.01$). The Durbin Watson statistic is 2.01.

CONCLUSION

The study of empirical relationship between liquidity and profitability is one of the areas of performance of corporate enterprise. This study has shown that Indian automobile industry has been able to achieve high scores on the various components of working capital and this has positive impact on its profitability. Empirical results of the study found a significant negative relationship between profitability and Accounts Receivable Period (ARP), Inventory Conversion Period (ICP) and Cash Conversion Cycle (CCC) for a sample of Indian automobile industry. These results suggest that managers can create value for their shareholders by reducing the number of days of accounts receivable and inventories to a reasonable minimum. Further, companies are capable of gaining sustainable competitive advantage by means of effective and efficient utilisation of the resources of the organisation through a careful reduction of the cash conversion cycle to its minimum. In doing so, the profitability of the firm is expected to increase. The study also observed that positive relationship between accounts payable period and profitability. This finding holds that more profitable firms wait longer to pay their bills. These conclusions are in confirmation with **Deloof (2003), Eljelly (2004), Shin and Soenen (1998), Raheman and Nasr (2007), Lazaridis and Tryfonidis (2006), Padachi (2006), Amarjit et al., (2010) and Garcia-Teruel and Martinez-Solano (2007)** who found a strong negative relationship between the measures of working capital management (liquidity) including accounts receivables period, inventory conversion period and cash conversion cycle with corporate profitability. Therefore, managers can create profits for their companies by handling correctly the cash conversion cycle and keeping each different component (accounts receivables, accounts payables and inventory) to an optimum level.

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TABLE 2: DESCRIPTIVE STATISTICS OF INDEPENDENT, DEPENDENT AND CONTROL VARIABLES

20 Indian Automobile Firms, 1996 – 2009 – 216 Firm -year observations (N = 216)							
Variables	**Mean ± S.D**	**Standard Error of mean**	**Median**	**Minimum**	**Maximum**	**kurtosis**	**Skewness**
PR	22.29 ± 105.3	6.62	14.58	-189.39	1638.92	222.83	14.44
ARP	37.22 ± 38.18	2.40	25.83	0.31	326.84	14.46	2.97
ICP	75.36 ± 61.78	3.88	62.47	0.00	730.44	54.21	5.78
APP	79.89 ± 85.41	5.37	63.42	0.00	1018.11	71.52	7.51
CCC	29.90 ± 65.81	4.14	19.07	-255.76	312.03	5.58	-0.18
Size	6.90 ± 1.70	0.11	6.86	0.92	10.39	0.01	-0.27
Growth	10.60 ± 36.83	2.32	10.13	-97.62	356.66	31.46	3.48
Leverage	1.33 ± 3.12	0.20	0.67	0.00	41.37	110.30	9.32
GDPG	12.73 ± 3.41	0.98	13.44	7.76	16.92	-1.56	-0.33

Notes : PR-Profit Rate on total assets; ARP-Accounts Receivables Period; ICP-Inventory Conversion Period; APP-Accounts Payable Period; CCC-Cash Conversion Cycle; Size-Natural logarithm of sales (proxy for size); Growth-Sales growth; Leverage-Debt/Equity; GDPG-Gross Domestic Product Growth.

Source: Computed.

TABLE 3 - CORRELATION MATRIX

	PR	**APR**	**ICP**	**APP**	**CCC**	**Size**	**Growth**	**Leverage**	**GDPG**
PR	1.00								
ARP	-0.02	1.00							
ICP	-0.08	0.23	1.00						
APP	0.01	0.16	0.68	1.00					
CCC	-0.09	0.60	0.02	-0.45	1.00				
Size	0.04	-0.38	-0.36	-0.36	-0.11	1.00			
Growth	0.03	-0.18	0.06	0.03	-0.13	0.18	1.00		
Leverage	-0.20	0.40	0.29	0.29	0.14	-0.22	0.02	1.00	
GDPG	-0.05	-0.04	0.66	0.25	0.28	-0.69	-0.15	-0.24	1.00

Notes : PR-Profit Rate on total assets; ARP-Accounts Receivables Period; ICP-Inventory Conversion Period; APP-Accounts Payable Period; CCC-Cash Conversion Cycle; Size-Natural logarithm of sales (proxy for size); Growth-Sales growth; Leverage-Debt/Equity; GDPG-Gross Domestic Product Growth.

Sources: Computed.

TABLE 4: REGRESSIONS OF PROFITABILITY ON WORKING CAPITAL VARIABLES
[20 Indian Automobile Firms, 1996-2009 : 216 Firm year observations]
(Dependent variable : Profit Rate on total assets(PR))

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	11.85	15.59	17.48	15.07	12.35
ARP	-0.06 (3.85)*				-0.12 (3.87)*
ICP		-0.04 (3.61)*			-0.05 (2.79) **
APP			0.02 (3.05)**		0.01 (3.64)*
CCC				-0.01 (2.31) ***	
Size	0.35 (2.86)**	0.64 (2.39)**	0.58 (2.02)***	0.55 (1.66)	0.20 (2.58)**
Growth	0.07 (2.64)**	0.28 (3.47)*	0.07 (2.71)**	0.14 (2.44)**	0.07 (3.06)**
Leverage	-6.22 (1.86)	-0.36 (0.12)	-4.37 (2.33)**	-5.05 (1.23)	-3.53 (1.94)***
GDPG	0.33 (2.83)**	0.41 (3.82)*	0.39 (3.39)*	0.36 (3.02)**	0.39 (4.01)*
R^2	**0.82**	**0.85**	**0.83**	**0.80**	**0.92**
Adjusted R^2	**0.69**	**0.75**	**0.70**	**0.66**	**0.80**
F Value	**6.24****	**8.11***	**6.66***	**5.65***	**7.71****
Durbin Watson	**1.49**	**1.79**	**1.76**	**1.47**	**2.01**

Notes : PR-Profit Rate on total assets; ARP-Accounts Receivables Period;
ICP-Inventory Conversion Period; APP-Accounts Payable Period;
CCC - Cash Conversion Cycle; Size- Natural logarithm of sales
(proxy for size); S.Growth-Sales growth; Leverage - Debt / Equity;
GDPG-Gross Domestic Product Growth.
* $P < 0.01$; **$P < 0.05$; ***$P < 0.10$

Source: Computed

A STUDY ON BEST PRACTICES IN FINANCIAL SERVICES AT A PUBLIC SECTOR COMPANY AT BHOPAL

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ABSTRACT

Best practices in financial services are concerned with the application of those management practices by financial services companies which benefit both the customers as well as the company. The following study is to find out what practices the said public sector company is applying in order to satisfy its customers and also create a name for itself in the financial services industry. This study is limited only to Kisan credit card (KCC). It encompasses studying the nature of operation of kisan credit card, finding out the policies which a Bank and the public sector company are following respect to kisan credit card, analyzing whether the practices followed by them are best practices or not. If not, suggest the company the best practices it should follow to improve the product.

KEYWORDS
KCC, Financial services, e-chaupal.

INTRODUCTION
Best practices in financial services are concerned with the application of those management practices by financial services companies which benefit both the customers as well as the company. The following study is to find out what practices the said public sector company is applying in order to satisfy its customers and also create a name for itself in the financial services industry.

Financial services refer to services provided by the finance industry. The finance industry encompasses a broad range of organizations that deals with money management. These are banks, credit card companies, insurance companies, consumer finance companies and stock brokerages.

REVIEW OF LITERATURE
Professors Alistair Byrne of the University of Strathclyde, David Blake of the Pensions Institute-Cass Business School, Andrew Cairns of Heriot-Watt University, and Kevin Dowd of Nottingham University in their study on “Costs of delaying retirement savings” have made the following observations:

Waiting to begin saving has a large negative impact, and quantify that the levels of saving needed become unattainable if delays are too great. And also the costs incurred by the investors are too high and unaffordable. Therefore the authors feel that every citizen should start investing in some financial service like life insurance, mutual funds or shares early or as soon as possible so that when he reaches the retirement age, he will have high savings which can be used by him post- retirement on self and his family members. Many citizens in different countries don’t understand the benefits that saving in financial services provides and also the huge costs they need to incur post-retirement if they delay saving their earnings. Thus the authors suggest that every citizen should invest in some financial service so that they can be comfortable once they retire.

Ms. R.M. Vasanthakumari and Ms. Vani Sharma in their article ‘Theoretical framework and Empirical evidence of Micro finance- An Indian context” have highlighted the following:

The emergence of micro finance as a viable alternative to the conventional banking in accomplishing the goal of poverty alleviation has been recognized world over. It has become a major tool of development and found to be the only practical and most appropriate solution to the deep seated challenges of poverty. It is often said that micro finance appears to deliver the ‘holy trinity’ of outreach, impact and sustainability. The developmental purposes to which, micro finance can be put include, livelihood, promotion, developing the local economy, empowerment, building democratic people’s organizations and changing wider systems or institutions within society. In India as also in other countries, Self Help Groups have been recognized by the policy makers as the effective conduits for accomplishing the distributional objectives of monetary policy. Group model as developed by Bangladesh Grameena Bank is by and large followed in most of the South East Asian Countries barring Indonesia, which has adopted Unit Desa or village Bank system.

Dr. G.K Agrawal, Former Executive Director (BIRD-NABARD) and his team from Banker’s Institute for Rural Development did a study on “Support from the banking system for kisan credit cards” and they came up with the following observations:

At the block level, progress of the KCC scheme is being reviewed by the Block Level Bankers Committee (BLBC) regularly. BLBC is a committee of bankers headed by the Lead Bank Officer of the district. The Block development officer and officers from the line departments also participate in such meetings. At the district level, District Consultative Committee reviews the progress of the KCC scheme as a part of its agenda. Similarly at the state level, State Level Banker’s Committee, the highest forum to review the banking activities in a state headed by the Chief Secretary reviews the KCC scheme. In addition, the banks also review the progress in house through reports/ returns and during the conference of branch managers. Regional rural banks review KCC scheme in their board meetings. Further, progress in implementation of KCC by RRB’s is also reviewed in the State Level Coordination Committee Meetings.

THE BANK POLICIES WITH REGARD TO KISAN CREDIT CARD
PURPOSE

To extend adequate and timely support to farmers for their short term credit needs.

WHO ARE ELIGIBLE FOR THE LOAN?

Farmers with excellent repayment record for 2 years. New farmers with sizeable deposits with our branches for 3 to 4 years are also eligible.

LOAN AMOUNT

Loan amount is decided based on the cropping pattern, ancillary and contingency needs of the farmer for the full year. 90% of the cost of cultivation (scale of finance) is given as loan per acre. 100% of the cost is available as loan upto RS 50000 and 85% of the cost is available as loan above RS 100000.

DISBURSEMENT OF THE LOAN

As per the cultivation requirements of the crop the loan amount is disbursed in cash and kind (for fertilizers and pesticides, etc.)

SECURITY TO BE FURNISHED

Loan amount	Security to be furnished
Upto RS 50000	Hypothecation of crops
Above RS50000 and upto RS 1 lakh	Hypothecation of crops, mortgage of lands, third party guarantee.
Above RS 1 lakh	Hypothecation of crops, mortgage of lands, third party guarantee
For tobacco, sugar cane and other crops under tie-up agreement with boards/factories/ companies Upto Rs 1 lakh Above Rs 1 lakh	 Hypothecation of crops Hypothecation of crops and mortgage of lands.

PAYMENT OF INTEREST CHARGED

Upto RS 3 lakhs the farmer pays only 7% rate of interest, the remaining is borne by NABARD and the issuing bank.

ROLE OF THE PUBLIC SECTOR COMPANY IN PROVIDING KCC TO FARMERS

- The financial services officer of the company's e- Choupal will get 10 cases from the sanchalak (village head) of a Choupal to work on at a time.
- The Company is agreeable for cases where the farmers hold 5 and more acres of land.
- The financial services officer of the company branch will visit the customer collects the required information from him and then goes to the local court and collects the land holding details and revenue details of the farmer instead of the farmer free of cost. And then no-dues certificate will be sought for and the bank's advocate will be asked to submit the search report.
- Bank will ensure to procure the search report from its lawyer within five days.
- In between farmers will get no dues certificates from all banks and then contact the financial services officer to fix the date of disbursement.
- On the day so fixed, the financial services officer or the sanchalak along with the farmer visit the bank and after all documentation disbursement will take place either through cash withdrawal or savings account.

RESEARCH METHODOLOGY

Research design: It is a conceptual structure with which research is undertaken. It constitutes the collection, measurement and analysis of data.

The researcher had an interaction with farmers for about 2 months and during which he had an overall view about the benefits and problems faced by them in operating kisan credit card. To assess the specific areas of discontent of the farmers and to suggest remedial measures this study was undertaken. He also had an interaction with field officers of the company, the said bank and other commercial banks to find out the services provided by them to farmers and benefits of introducing kisan credit card to their organizations.

PRIMARY DATA

Primary data was collected from different kisan credit card holders - the company, and other banks.

- **SECONDARY DATA**: Websites of the said company, Nabard and the said bank.
- No of Company's hubs visited/ districts visited: 7, these are Astha, Pipariya, Timarni, Harda, Itarsi, Sagar and Betul of Madhya Pradesh state.
- **Sampling Technique:** The Sampling technique adopted is **Random Sampling Technique.**
- **Sample size: kisan credit card holders- 250, Company's staff and banks- 20.**
- **Type of research: Descriptive Research**

Data analysis: The data is analyzed by using statistical tools chi-square test, correlation, anova and frequencies.

DATA ANALYSIS AND INTERPRETATION

SPEARMAN'S CORRELATION

TABLE 4.1

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
satisfaction * limit	250	100.0%	0	.0%	250	100.0%

satisfaction * limit Crosstabulation

Count

		limit			Total
		less than Rs. 50000	Rs. 50000-1 lakh	1-3 lakh	
satisfaction	unsatisfied	34	19	7	60
	satisfied	45	67	67	179
	extremely satisfied	0	6	5	11
Total		79	92	79	250

Symmetric Measures

		Value	Asymp. Std. Error [a]	Approx. T [b]	Approx. Sig.
Interval by Interval	Pearson's R	.325	.052	5.410	.000[c]
Ordinal by Ordinal	Spearman Correlation	.328	.053	5.468	.000[c]
N of Valid Cases		250			

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

c. Based on normal approximation.

INFERENCE

From the above table, we can see that the value of Spearman correlation is 0.328.This shows that there is a positive correlation between the limit fixed by the bank and the satisfaction level of the farmers. This means that if limit per acre increases the satisfaction level of the farmers will also increase.

FREQUENCIES

From the following frequency table, we can interpret that out of the 250 respondents, 32 percent of respondents have been using kisan credit card for less than 1 year and 21 percent of the respondents have been using it for 5 years and above.

TIME PERIOD OF USAGE OF KISAN CREDIT CARD BY RESPONDENTS

TABLE 4.2

using

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 1 year	80	32.0	32.0	32.0
	1-2 year	57	22.8	22.8	54.8
	3 year	60	24.0	24.0	78.8
	5 year	53	21.2	21.2	100.0
	Total	250	100.0	100.0	

COVERAGE OF LARGE, SMALL AND MARGINAL FARMERS AMONG THE RESPONDENTS

TABLE 4.3 CATEGORY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Large farmer	147	58.80	58.80	58.80
	Small farmer	61	24.4	24.4	83.2
	Marginal farmer	42	16.8	16.8	100.0
	Total	250	100.0	100.0	

From the above table, we can see that 59 percent of the respondents are large farmers, 24 percent are small farmers and 17 percent are marginal farmers.

AVERAGE LAND HOLDING OF FARMERS

TABLE 4.4

land

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	less than 5 acres	45	18.0	18.0	18.0
	5-7 acres	58	23.2	23.2	41.2
	8 acres	51	20.4	20.4	61.6
	more than 8 acres	96	38.4	38.4	100.0
	Total	250	100.0	100.0	

From the above table we can infer that, out of the 250 farmer respondents, 96 farmers have an average of 8 acres and above and 45 farmers have an average of less than 5 acres.

OTHER FINANCIAL SERVICES WHICH FARMERS APPLY WITH BANK

TABLE 4.5

othrprod

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	saving account	191	76.4	76.4	76.4
	life insurance policy	14	5.6	5.6	82.0
	tractor loan	5	2.0	2.0	84.0
	both 1&2 or 1&3	40	16.0	16.0	100.0
	Total	250	100.0	100.0	

From the above table we can see that most of the farmers prefer to have a savings account and least farmers apply for tractor loan.

BENEFITS STATED BY FARMERS IN USING KCC

TABLE 4.6: BENEFITS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	timely credit	50	20.0	20.0	20.0
	purchase of agricultural inputs	52	20.8	20.8	40.8
	delay in the sale of crops	36	14.4	14.4	55.2
	development of irrigational facilities	29	11.6	11.6	66.8
	development of agricultural land	61	24.4	24.4	91.2
	purchase of new house	12	4.8	4.8	96.0
	purchase of new land	10	4.0	4.0	100.0
	Total	250	100.0	100.0	

From the above table, we can infer the maximum no of respondents have opted for development of agricultural land as a benefit of kcc, while minimum responses have been given for purchase of new land as a benefit of kisan credit card.

PROBLEMS IN OPERATING KISAN CREDIT CARD

TABLE 4.7

PROBLEMS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	field officer not cooperating	33	13.2	13.2	13.2
	delay in disbursement of funds	38	15.2	15.2	28.4
	pass book entry not made	31	12.4	12.4	40.8
	crop insurance scheme not beneficial	47	18.8	18.8	59.6
	limit should be raised	70	28.0	28.0	87.6
	reduction in interest rates	13	5.2	5.2	92.8
	atm card facility not provided	18	7.2	7.2	100.0
	Total	250	100.0	100.0	

From the above table, we can infer that maximum respondents have stated inadequate credit (limit should be raised) as a problem in using kisan credit card. While minimum no of respondents have opted for ATM facility not being provided.

NO OF COMPANY'S E- CHOUPALS DEALING WITH KCC

TABLE 4.8: CHOUPALS

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 10 choupals	5	25.0	25.0	25.0
15 choupals	6	30.0	30.0	55.0
20 choupals	9	45.0	45.0	100.0
Total	20	100.0	100.0	

From the above table we can see that, 45 percent have gone with 20 choupals and 25 percent have gone with 10 choupals. From this we can infer that in each of the 7 hubs visited, out 35/40 Company's choupals only 50 percent are active and remaining choupals are inactive.

BENEFITS OF KISAN CREDIT CARD TO BANKS

TABLE 4.9: BENEFITS TO BANKS

	Frequency	Percent	Valid Percent	Cumulative Percent
VALID INCREASE IN CUSTOMER BASE	6	30.0	30.0	30.0
INCREASE IN REVENUES TO THE BANK	7	35.0	35.0	65.0
BETTER BANKER AND CLIENT RELATIONSHIP.	4	20.0	20.0	85.0
REDUCTION IN TRANSACTION COST	3	15.0	15.0	100.0
TOTAL	20	100.0	100.0	

From the above table we can infer that, most of the bank staff feels that kisan credit card increases the revenues of the bank. The minimum responses are for reduction in transaction cost.

BENEFITS OF KISAN CREDIT CARD TO COMPANY'S HUBS

TABLE 4.10: BENEFITS TO COMPANY

	Frequency	Percent	Valid Percent	Cumulative Percent
VALID INCREASE IN CUSTOMER BASE	5	25.0	25.0	25.0
DIRECT INTERECTION WITH FARMERS	5	25.0	25.0	50.0
REQUEST THEM TO BUY FMCG	6	30.0	30.0	80.0
REQUEST THEM TO BUY INSURANCE	4	20.0	20.0	100.0
TOTAL	20	100.0	100.0	

From the above table, we can interpret that 30 percent of the Company's hub staff feel that in dealing with kisan credit card they can lure farmers to buy Fmcg from them. While 20 percent feel that it helps in sale of life insurance. 25 percent each have opted for increase in customer base and direct interaction with farmers.

CHI- SQUARE TESTS

NULL HYPOTHESIS: There is no significant difference between channel of application of kisan credit cards and quality of service provided by banks

TABLE 4.11

applied * rate Crosstabulation

Count

		rate				Total
		poor	average	good	very good	
applied	through Company hub	7	4	46	0	57
	directly with bank	11	4	46	4	65
	through other banks	23	10	65	1	99
	cooperative banks and regional rural banks	13	0	16	0	29
Total		54	18	173	5	250

CHI-SQUARE TEST

	Value	df	Asymp Sig.(2-sided)
Pearson Chi-square	23.592[3]	9	.005
Likelihood ratio	24.122	9	.004
Linear-by-Linear Association	9.805	1	.002
N of valid cases	250		

DIRECTIONAL MEASURES

			Value	Asymp Std. Error[3]	Approx. T[b]	Approx. Sig.
Nominal by Nominal	Lambda	Symmetric	.013	.010	1.346	.178
		Applied dependent	.020	.015	1.346	.178
		Rate dependent	.000	.000	.[c]	.[c]
	Goodman and Kruskai tau	Applied dependent	.027	.011		.019[d]
		rate dependent	.035	.020		.002[d]

SYMMETRIC MEASURES

		Value	Approx. Sig.
Nominal by Nominal	Phi	.307	.005
	Cramer's V	.177	.005
N of valid cases		250	

Inference: we can see that the value of chi-square is 0.005 which means that our null hypothesis is rejected and our alternate hypothesis must be accepted. The value of lambda is 0.013 which means that there is 1.3 percent reduction in error in comparing the two variables. The value of Cramer's V is 0.177 which shows that there is low correlation when we compare the mode of application of kishan credit cards and the quality of service of banks.

Thus we can find from this that the best bank in the country provides the best service to the farmers.

NULL HYPOTHESIS: There is no significant between the limit by the bank and the land held by the farmers.

TABLE 4.12

limit * land Crosstabulation

Count

		land				Total
		less than 5 acres	5-7 acres	8 acres	more than 8 acres	
limit	less than Rs. 50000	43	27	6	3	79
	Rs. 50000-1 lakh	2	31	34	25	92
	1-3 lakh	0	0	11	68	79
Total		45	58	51	96	250

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	206.820[a]	6	.000
Likelihood Ratio	229.518	6	.000
Linear-by-Linear Association	154.501	1	.000
N of Valid Cases	250		

			Value	Asymp Std. Error[3]	Approx. T[b]	Approx. Sig.
Nominal by Nominal	Lambda	Symmetric	.426	.049	7.575	.000
		limit dependent	.532	.051	8.017	.000
		land dependent	.318	.055	5.017	.000
	Goodman and Kruskai tau	limit dependent	.403	.036		.000[c]
		land dependent	.300	.029		.000[c]

SYMMETRIC MEASURES

		Value	Approx. Sig.
Nominal by Nominal	Phi	.910	.000
	Cramer's V	.643	.000
N of valid cases		250	

From the tables and analysis, we can interpret that:
The value of Pearson's chi-square is 0.000 which is less than 0.05. Thus our null hypothesis is rejected and our alternate hypothesis is accepted. So there is significant difference between the limit fixed by the bank and the land held by the farmers. The value of lambda is 0.426 that is there is 4.26% reduction in error in comparing the two variables. The Cramer's V value is 0.643 which means there is high/ strong correlation when comparing the two variables.

ANOVA TEST

NULL HYPOTHESIS: There is no significant difference between gender and satisfaction level.

TABLE 4.13

Satisfaction * gender

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.079	2	.040	.158	.854
Within Groups	61.845	247	.250		
Total	61.924	249			

Comparing the factor we find that the factor has value more than .05 significance level hence the null hypothesis is accepted. Hence the conclusion can be that all the farmers of any gender are somewhat satisfied with kisan credit cards.

NULL HYPOTHESIS: There is no significant difference between gender and application for other bank products.

TABLE 4.14

Other products * gender

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.604	3	.201	.807	.491
Within Groups	61.320	246	.249		
Total	61.924	249			

The factor has value more than 0.05 significance. Hence the null hypothesis is accepted. The conclusion is that gender of the farmer does not matter when they apply for other products of the bank like savings account, life insurance policy etc.

NULL HYPOTHESIS: There is no significant difference between gender and limit fixed by the bank.

TABLE 4.15

Limit fixed by the bank* gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.494	2	.247	.992	.372
Within Groups	61.430	247	.249		
Total	61.924	249			

The factor has significance value more than .05. Hence the null hypothesis is accepted. We can conclude that the limit fixed by the bank does not depend on the gender of the farmer.

NULL HYPOTHESIS: There is no significant difference between age and satisfaction level of the farmers.

TABLE 4.16

Satisfaction* gender

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	.599	2	.300	.248	.780
Within Groups	298.137	247	1.207		
Total	298.736	249			

We can see that the significance value of the factor is more than .05. Hence the null hypothesis is accepted. So we can conclude that all the farmers of any age are somewhat satisfied with kisan credit cards.

FINDINGS

- The level of satisfaction of farmers is high in most of the cases where the limit fixed by the bank is high and vice versa. So, there is a significant relationship between the two variables.
- The no of large farmers who have applied for kishan credit cards in Madhya Pradesh is higher than the no of small farmers who applied for kishan credit cards. This shows that the company and the said bank prefer large farmers because of their repayment capacity. But that doesn't mean that they should ignore the small and marginal farmers.
- In the 7 districts visited, i.e. Astha, Pipariya, Timarni, Harda, Itarsi, Betul and Sagar the average land holding of farmers is between 8-9 acres. This shows the coverage of large farmers in these areas.
- Almost 80 percent of the kishan credit card respondents are having a savings account with the issuing bank and only 20 percent of them have applied for Tractor loans and other agricultural loans. This shows that the banks put in huge efforts to ensure that farmers in rural areas have a savings account.
- The potential of kishan credit card in Madhya Pradesh state is very good and in most of the districts it is the only agricultural loan that is taken by farmers.
- Kishan credit cards were launched in India almost ten years. But the company started dealing with kishan credit cards only two years back. So the no of farmers who applied for kcc through the company is very low compared to those farmers who have applied directly through bank and those with others nationalized banks.
- Kishan credit card is one of the most innovative financial services launched for farmers in India. Before farmers used to take loans from money lenders in villages for developing their agricultural lands and for buying agricultural inputs like seeds and fertilizers. These money lenders used to cheat the farmers by charging interest rates like 25% and 30%. But banks are offering kishan credit card loan to farmers at low interest rates like 7%-8%. This is very beneficial to farmers as they can easily repay their loans and also they need not halt their daily agricultural activities
- Most of the farmers interviewed have stated the following as the benefits from kishan credit card loan- timely access to agricultural credit, easy purchase of agricultural inputs, development of agricultural land, development of irrigational facilities in the fields and farmers can delay the sale of their crops and can sell them at higher prices on a future date.
- Few of the respondents have even stated that the kishan credit card loan has helped them in purchasing more agricultural land and building of a new house in a good locality.
- There are also few problems faced by kishan credit card holders while operating it. There are many respondents who feel that the limit fixed by the bank should be raised and many respondents feel that the crop insurance scheme which is a part of kcc is not at all beneficial. Because the banks charge some particular amount every year from the farmers as crop insurance, but when the crops of the farmers are destroyed no amount is paid to them.
- There is significant difference between the repayment period allowed to the farmers and the level of satisfaction. This means that if the farmers are allowed to repay their loan in one year instead of six months there satisfaction level will increase.
- There is significant difference between the Bank providing kishan credit cards and the farmers rating their level of service. The farmers feel that the said bank provides the best service when it comes to kishan credit cards.
- There is significant difference between the quality of service provided by the banks and the rate of interest paid by the farmers. This means that according to the farmers the bank which charges low interest rates provides the best service.
- There is significant difference between the limit fixed by the bank and the land held by the farmer. This means that a large farmer gets a higher limit or loan amount when compared to a small or marginal farmer.
- In the seven hubs visited, the company has at least 40 choupals (villages) covered by it. But in all these hubs only 15-20 choupals are actively dealing with kishan credit cards and the remaining choupals are inactive and the sanchalak of these choupals are not taking much interest.
- The company and most of the banks need to follow few good practices in dealing with Kcc. Some suggestions for the above are given below.
- Punjab National bank, Central bank of India, Bank of Maharashtra and few cooperative banks are the other banks which are providing kishan credit cards in those locations where bank-Company tie up exists.
- Farmers of any age, whether it is 25 or 65, produce similar crops in their agricultural lands in Madhya Pradesh. The common crops being Wheat, Soya and Chana.
- Many of the large farmers were complaining because even after three years of usage, banks have not provided them with ATM facility. They feel that banks should provide them ATM facility so that they can make easy withdrawals from any branch at any time.

SUGGESTIONS

TO THE COMPANY: For increasing the potential of its Kcc business.

- Whenever there is a public gathering or an exhibition in a district or a village, the concerned Company hub should put a kisan credit card stall there and start attracting new farmers who have not still applied for kisan credit cards.
- It should sign MOU's with other commercial banks and regional rural banks to act as their channel partners and increase its coverage in many more hubs. This will increase the strength of the channel and also because in a few hubs instead of bank, some other commercial or a regional rural bank is the leading performer in Kcc.
- The company shall ensure that the sanchalaks are paid for their services regularly. Because it is very important to motivate the sanchalaks because if we see Company's Kcc process flow it is the Sanchalaks who are helping the financial services officer in getting cases regularly.
- The company, if possible can increase the incentives that is paid to the financial services officers. Because the financial services officers are helping the company in expanding its Kcc business and they need to be motivated.

TO THE SAID BANK AND OTHER COMMERCIAL BANKS:

- In order to increase the level of satisfaction of farmers, banks like Central Bank of India, Punjab National Bank and cooperative banks must increase the limit per acre fixed by them. Or else it leads to dissatisfaction of farmers.

- Kshetriya Grameena Banks (regional rural banks) charge higher rate of interest when compared to the nationalized commercial banks. Therefore, these banks should reduce their rate of interest in order to attract more farmers.
- The said bank and other commercial banks should put in efforts to increase the sales of other rural finance products like tractor financing, warehouse receipt and agricultural term loans to its already existing Kcc holders.
- Banks should ensure that farmers who are applying for kishan credit cards are utilizing it for the right purpose and not for non agricultural purposes. Because the main objective of the kishan credit card scheme is to provide loan to farmers for agricultural development.
- Banks should pay the crop insurance to the farmers if their crops are destroyed. Or else the farmers become dissatisfied and they feel cheated by the bank.
- Banks should provide ATM facility to those large farmers who have completed three years of usage of kisan credit card. So that these farmers who need huge amounts of money regularly for the development of their lands or for investing in some other business can withdraw money from any branch of the bank at any point of time.

CONCLUSION

The expectation of the researcher was to get exposure of the various aspects of kishan credit card and their role in the development of agricultural credit. It is acceptable that not all farmers can be satisfied with the benefits of kishan credit card. So the management and commercial banks must take proactive steps to make the product more attractive and feasible for the farmer.

Having analyzed the data and presented the findings and suggestions to the organization, the researcher expects the organization to take action and implement new strategies and practices which would benefit the farmers. These findings are very useful to the organization to take future decisions and improve the product. The research would also be useful to anyone who will be interested in studying about kishan credit card and the role played by the company in developing it.

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AN EMPIRICAL STUDY OF FIRM STRUCTURE AND PROFITABILITY RELATIONSHIP: THE CASE OF INDIAN AUTOMOBILE FIRMS

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ABSTRACT

The research paper focuses on the relationship between firm structure and profitability of Indian Automobile Companies. The analysis is concerned with the extent to which firm. Structure factors determining profitability. The study employed regression modal and the results demonstrated that firm size and growth are important determinants of profitability with positive impact whereas liquidity and leverage had a negative impact on profitability. Further, this study had found empirical evidence that past profitability, capital – output ratio and market share are also important determinants of profitability in the Indian Automobile Industry.

KEYWORDS

Determinants of Profitability, Factors affecting Profitability, Indian Automobile Industry, Leverage, Liquidity, Profitability and Size.

INTRODUCTION

The study of how and why firms attain profitability levels has been the main pre-occupation of Industrial organization economists for the last four decades. Many of the theoretical and empirical developments on the determination of corporate profitability emanate from traditional price theory and the Structure- Conduct-Performance (SCP) paradigm of the modern industrial organization literature. This latter framework was initiated by the Harvard economist **Bain (1956),** utilizing much of the earlier work of **Clark (1940) and Mason (1949).** Beyond Bain, over 20 years, a considerable research was undertaken examining the relationship between firm structure and profitability. In determining factors influencing performance diversity, literature dealing with such work suggests that industrial performance and performance differences among firms can be explained as arising from various characteristics; those which are industry specific (collusion hypothesis) and those which are firm-specific (Efficient market hypothesis). **(Capon, Farley & Hoenig, 1990).**

Industrial organization economists point to industry effects (i.e., concentration levels, industry growth) using the structure –conduct – performance model (SCP) as the main factor determining firm profitability. **(Demsetz, 1973; Peltzman,1977; Scherer, 1980; Porter 1981).** On the other hand, the resource-based view **(Wernerfelt, 1984; Barney, 1991; Peteraf, 1993)** suggests that the explanation for the existence of more or less profitable firms within the same industry must be found in the internal factors of each company (for example, market share, firm size, skill level etc.). These firm-effect factors favour the achievement and maintenance of competitive advantages of each firm, which eventually lead to different profitability levels among firms belonging to the same industry **(Amato & Wilder, 1990).**

Many studies are found testing these competing hypotheses and the results concludes with general mixed opinions. In the market Structure-Conduct-Performance (SCP) literature, the most important hypotheses, appear to fall in to six categories **(Bothwell, Cooley and Hall, 1984)** which can be characterized as follows: seller's concentration may affect Profit-Monopoly power, conferred by high degrees of seller concentration, may cause high rates of return **(Bain, 1951);** High entry barriers may also affect profits positively **(Mann, 1966; Weiss, 1963; Comanor and Wilson, 1967; Qualls, 1979);** Absolute or relative firm size may also explain profits. **(Demsetz, 1973; Peltzman, 1977; Gale, 1972; Shephered, 1972);** Risk differentials may be another variable affecting profitability differences **(Stigler, 1963; Fisher and Hall, 1967; Cootner and Holland, 1970);** Advertising Intensity also explaining profits **(Bloch, 1974)** and Growth also affects the profits **(Brozen's 1971).**

Actually profitability is a highly sensitive economic variable which is affected by a host of factors operating through a variety of ways. Some of them affect the product prices and quantities; some affect the cost of production while others make changes in capital stock, size, market share and growth of the firm. All such factors ultimately make the profitability of the firm to vary. It is difficult to build a theory of profitability which accounts for all such factors. Because of this difficulty, it is quite natural to analyze the variations in profitability by taking the partial approach, that is, to find the effect of certain major variables, ignoring the implications of other left out independent variables at a time. Hence, in this study the relationship between size, growth, liquidity, leverage, age, persistence of profitability, capital - output ratio, market share and profitability has been made.

SIZE AND PROFITABILITY

Economic Theory prescribes that increasing firm size allows for incremental advantages because the size of the firm enables it to raise the barriers of entry to potential entrants as well as leverage on the economies of scale to attain higher profitability. Key features of a large firm are it diverse capabilities, the abilities to exploit economies of scale and scope and the formalization of procedures. These characteristics allow larger firms to generate superior performance relative to smaller firms **(Penrose, 1959)**. **Baumol (1959)** viewed that the larger firm may be in a position to earn a higher rate of return on its investment than the smaller firms because it has all options of a smaller firm open to it and in and in addition can undertake projects which are of large scale and are denied to smaller firms. On the other hand, larger firms can lead to increased co-ordination requirements, which in turn, make the managerial task more difficult leading to organizational inefficiencies and lower profit rates **(Downs, 1967).** Further, it has been suggested that increased size tends to be associated with higher bureaucratization **(Besanko et al., 2004; and Ahuja & Majumdar, 1998).** Another plausible argument to justify the possibility of a negative firm size-profitability relationship can be found in the concept of x-inefficiencies **(Leibenstein, 1976).**

A good number of researchers had investigated the relationship between firm size and profitability. Among the pioneering studies conducted in this field is attributed to **Hall and Weiss (1967)** showed that firm size exhibit a positive relationship with profitability. The results of **Marcus (1969)** study showed that firm size influences profitability in some, but not all industries. **Amato & Wilder (1985)** also conveyed that the relationship between firm size and profitability may be positive for some firm size ranges and negative for others. The studies by **Berk (1997), Michaelas et al., (1999), Hall et al., (2000), Cassar & Holmes (2003), Darko Tipuric (2002), Leledakis et al., (2004), Vijayakumar and Kathirvel (2003) and Renu Luthra and Mishra (2004)** showed the positive relationship between the firm size and profitability. On the other hand, studies by **Capon et al.,(1990), Rajan and Zingales (2000), Goddard Tavakoli and Wilson (2005), Bala Ramasamy et al., (2005)., Abdussalam Mahomoud Abu-Tapanjeh (2006), Kuldip Kaur (1998) and Abdul Rahaman Ammal (2003)** postulated negative relationship between firm size and profitability. Thus, from this theoretical background, the researcher advances the following hypothesis.

H_0: Firm size positively affects profitability.

GROWTH AND PROFITABILITY

The relationship between growth and profitability is of considerable interest both from theoretical and practical point of view. Basic economic theory, assuming inverted u-shape cost curves, implies that firms grow until they have reached the size where average variable cost is at minimum **(Besanko et al., 2004)**.In that range, increased size would, ceteris paribus, be associated with improved profitability. By contrast, according to the strategy school theory not only static economies of scale in production, but experience curve effects pertaining to all aspects of the firm's operations can be the basis of cost advantages. This leads to a positive relationship between market share and profitability. However, even in the supportive literature it is observed that growth does not always enhance profits. Growth beyond minimum efficient scale is associated with unknown or reversed effect on profitability, and pursuing growth in low growth markets or by increasing sales for products with low initial market share is no guaranteed recipe for financial success.

Marris (1964) was the first to develop a rigorous model to analyze the growth and profits of firms. According to Marris model, a firm's ability to shift the demand and supply functions (growth-profit frontier) depends on the environment in which it operates. According to **Greiner (1972)**, the relationship between company growth and profitability can be positive or negative. The empirical studies conducted by **Fenny and Rogers (1999), Debashish Rai and Debashish Sur (2001), Maninder S.Sarkaria and Shergil (2004), Zeiton and Tian (2007), Martin Hovey (2007), Fulbag Singh and Monica Mogla (2008) and Ahmed Arif Karim Almazari (2009)** found evidence that growth had a positive impact on profitability. On the other hand, studies by **Hoy et al., (1992), Kaen and Baumann (2003), Abuzar and Ejelly (2004), Long Chan and Xinlei Zhao (2005) and Elodos Mathew Punnoose (2008)** postulated negative relationship between growth and profitability. In summary, the empirical evidence on the relationship between growth and profitability is inconclusive. From the above reviews, the researcher concludes that most of the studies support the general notion that there is a positive relationship between growth and profitability. In order to test this general notion, the researcher postulates the following hypothesis.

H_0: Firms growth positively affects profitability.

LIQUIDITY AND PROFITABILITY

Promoters of Capital Theory share the axiom that profitability and liquidity comprise the salient calbeit frequently conflicting goals of working capital management. The conflict arises because the maximization of firm's returns could seriously threaten the liquidity and on the other hand, the pursuit of liquidity has a tendency to dilute returns. The crucial part in managing its liquidity in day-to day operations to ensure its smooth running and meets its obligations **(Eljelly, 2004).** Yet, this is not a simple task since managers must make sure that business operation is running in efficient and profitable manner. There are possibilities of mismatch of current assets and current liabilities during this process. If this happens and firm's manager cannot manage it properly then it will affect firm's profitability.

According to the existing literature on the relationship between liquidity and profitability, in a study by **Kamath (1989)** found liquidity affects profitability negatively. The other studies, **Deloof (2003), Lazaridis and Tryfonidis (2006), Eljelly (2004), Raheman and Nasr (2007), Garcia-Teruel and Martinez-Solano (2007), Mathuva (2009), Falope and Ajilore (2009) and Amarjit Gill, Nahum Biger and Neil Mathur (2010)** empirically examined the relationship between profitability and liquidity showed that there exists a significant and negative relationship between them. However, the study conducted by **Katerina Lyroudi and Lazoridis (2000), Bardia (2004) and D.Sur, J. Biswas and Ganguly, P. (2001)** found that there was positive relationship between liquidity and profitability. From the above reviews, the researcher concludes the most of the studies support the general notion that there is a negative relationship between liquidity and profitability. In order to test this general notion, the researcher postulates the following hypothesis.

H_0: Firms liquidity negatively affects profitability.

LEVERAGES AND PROFITABILITY

The debate of optimal capital structure has been the focal point of the finance literature for previous several decades. According to Finance Theory, the capital structure do affects firm's cost of capital and consequently financial performance. The pioneering paper published in 1958 by Merton Miller and Franco Modigliani provides the conditions under which a firm's financing decisions do not affect its value. Due to the reflection on MM theorem, the issue of capital structure has generated unforeseen interest among financial researchers. The two most significant theories that aim to explain the relationship between capital structure and the market value of the firm are Pecking Order Theory (POT) and Static-Trade-off Theory (STT). The POT implies that profitable companies would usually not opt for debt financing for their new projects because of the availability of sizeable amounts of internal funds. However, as per STT, profitable companies would give preference to the use of debt financing in view of the attraction of tax shield benefit available on borrowed funds. Thus, STT predicts that there would be a direct relationship between profitability and leverage, while POT expects the opposite i.e., inverse relationship between them.

The available literature on leverages and profitability depicts a great deal of theoretical controversies. **Nikolaos P. Eriotis (2000), Zhang et al., (2002), Bevan and Danbolt (2004), Tong and Green (2005), Fraser et al., (2006), Martin Hovey (2007) and Gabriela Michalea and Raluca Antal (2009),** their findings suggest that firms follow a pecking order and also reported a negative relationship between profitability and leverage. On the other hand in accordance with trade-off theory in opposite relationship may be envisaged. Various researchers have analyzed different types of trade-offs between capital structure and corporate taxes **(Modigliani and Millar, 1963),** personal taxes **(De Angelo and Masulis, 1980),** Bankruptcy costs **(Titman 1984),** agency costs **(Myers, 1977)** and information asymmetry **(Myers and Majlof, 1984)**. The stated rational is when firms are profitable they prefer debt to benefit from the tax shield. The underlying supposition dictates positive relationship between leverage and profitability. Thus, from this theoretical background, the researcher advances the following hypothesis:

H_0: There is a positive relationship between leverages and profitability.

AGE

Age of the firm can also be important determinant of profitability. Older the firm more may be the profitability of the firm, because experience and efficiency in the production process may decrease costs of production. So, it is expect positive relationship between age and profitability of the firm. However, in a situation of rapid technological progress, older firms may be less profitable as compared to the new ones, if they do not renovate their plants. With respect to the impact of age, one stream of research suggests that older firms are more experienced, have enjoyed the benefits of learning, are not prone to the liabilities of newness, and can, therefore, enjoy superior performance. **(Stinchcombe, 1965; Chittenden et al., 1996; Hall et al., 2000; Michaelas et al., 1999).** Another stream of research, however, suggests that older firms are prone to inertia, and the bureaucratic ossification that goes along with age; thus, they are unlikely to have the flexibility to make rapid adjustments to changing circumstances and are likely to lose out in the performance stakes to younger, and more agile, firms. **(Marshall, 1920).** Hence, theory is equivocal. Thus, according to this literature and in order to verify the same results for the Indian automobile firms, the researcher postulates the following hypothesis.

H_0: Firm age positively affects Profitability

PERSISTENCY OF PROFITABILITY

The hypothesis that the level of future profitability of a company will reflect its past profitability is one of appealing simplicity. It is also obvious potential value to the task of prediction. It is not, however, so satisfactory from an explanatory point of view, because it merely states that profitability is what it is and tends to remain what it is. Ideally, the economist would like to know why profitability is what it is. If he knows why it is what it is, then changes in profitability can be explained by changes in the factor which determine the level of profitability, any persistency of profitability can be explained by the persistency of these factors. This gives us a clue to the explanatory value of the relationship between past and future profitability.

The past performance of a firm acts as a guide to the future. It is true that the progress of a concern is determined not only by its past history, but by its future operations. However, the future cannot be analyzed; it is only on expectation, and any such expectation, would not be dependable unless based on the past experience. So, Past Profitability (P_{t-1}) may have the relevance as a determinant of current profitability. If profitability depends on the quality of the firm's management or on the monopoly power which the firm enjoys, or on both of these factors, one should expect to find some persistency in the profitability of firms over successive years **(Singh and Whittington, 1968).** Since, there is usually some continuity of good management and of monopoly power, so we expect that profitability in the previous year will determine the profitability in the current year. But, if profitability in the previous year is purely a chance phenomenon, then it may not affect the profitability in the current year. Thus, according to the above reviews and discussions, the researcher proposes the following hypothesis.

H_0: Past profitability positively affects profitability.

CAPITAL-OUTPUT RATIO

Capital-output ratio indicates the extent to which a firm is capital intensive in nature. Firms that are capital intensive in nature requiring large quantity of capital, may turn towards the cheapest source of finance have a tendency to show stable profits because these firms are less risky one and financial institutions can lead more reliability to these firms's while lending money **(Hurdle, 1974).** But, **Scherer (1970)** found just the opposite results and said that capital intensive firms are more risky in nature, because, they may involve themselves in price cutting operations, thus making profitability more variable. According to **Ferri and Jones (1980)** also, future earnings of a firm will be more variable by the use of fixed assets. So, one can't expect a definite relationship between these two variables. Based on this argument, the researcher postulates the following hypothesis.

H_0: Capital-output ratio associates positively with profitability.

MARKET SHARE OF THE FIRM

Profitability of a firm also depends upon its market share i.e., the share of the particular firm in the total sales of that industry. Obviously, if the firm can increase its market share, it can expect more profitability as latter is a direction function of its sales i.e., if it can increase its sales in the market, it will have more profitability. Further, large market share in general is expected to yield high profitability, (i) by giving the firm a share based product differentiation advantages, (ii) by providing opportunities to this firm to operate in oligopolistic group for some joint strategies and increase in its bargaining power, and (iii) by allowing the firm to take advantages of economies of scale. **Richard Mancke (1974), B.T Gale (1972), Shephered (1972), Phillips (1972), Day (1973), Hurdle (1974) and Khalilzadeh Shirazi (1974)** have affirmed the positive and significant relationship between profitability and market share. Thus, according to this literature, the researcher postulates the following hypothesis.

H_0: Market share positively affects profitability.

VARIABLES SPECIFICATIONS AND EMPIRICAL MODEL

In order to explain the profitability of the firms in Indian automobile industry, the various factors discussed above, have been taken together. This is achieved by developing a similar empirical framework used by **Peter H. Grinyer and Peter Mc kiernan (1991), Jim Nugent (1998), Sumit K. Majumdar (1997), Bala Ramasamy et al., (2005), Abdussalam Mahmoud Abu-Tapanjeh (2006) and Grace Tola Olutunla and Tomola Marshal Obamuyi (2008).** The analysis of data employs the use of correlation and a multiple regression model that consists of factors associated with profitability of firms in Indian automobile industry.

The basic model consists of a multiple regression of profitability on a set of independent variables. The dependent variables of the regression model is return on assets (which is defined as, Gross profit as percentage on total assets) which relates the profitability to the asset base. This study investigates the effect of size, growth, liquidity, leverage, age, persistency of profitability, capital-output ratio and market share on firms' profitability. The current study use correlation analysis to identify the association between profitability and the independent variables, as well as regression analysis to estimate the causal relationship. The researcher considered the following regression model.

$$PR_{it} = \beta_0 + \beta_1 (\text{Size})_{it} + \beta_2 (\text{Growth})_{it} + \beta_3 (\text{Liquidity})_{it} + \beta_4 (\text{Leverage})_{it} + \beta_5 (\text{Age})_{it} + \beta_6(\text{Past profitability})_{it} + \beta_7 (\text{Capital-output ratio})_{it} + \beta_8 (\text{Market share})_{it} + e_{it}$$

Where,

PR	–	Measures the firm profitability with gross profit as a percentage of total assets for the firm (i) in the year (t)
Size	–	Natural logarithm of firm's sales for firm (i) in the year (t)
Growth	–	Growth of firm's sales for firm (i) in the year (t)
Liquidity	–	Measures cash conversion cycle for the firm (i) in the year (t)
Leverage	–	Measures with debt to equity for firm (i) in the year (t)
Age	–	Natural logarithms of the firm's age for firm (i) in the year (t)
Past Profitability	–	One year lagged profitability for the firm (i) in the year (t)
Capital-output ratio	–	Measures the ratio of total capital to total sales for firm (i) in the year (t)
Market share	–	Measures the ratio of sales to total industry sales for firm (i) in the year (t)
β_0	–	Constant term for the firm (i) in the year (t)
$\beta_1, \beta_2 ....$	–	Regression co-efficient
e	–	Disturbance term for the firm (i) in the year (t).

Table 1 below summarizes the definition, theoretical predicted signs and a-priori hypotheses were formulated, which were to be tested.

TABLE 1: PROXY VARIABLES DEFINITION AND PREDICTED RELATIONSHIPS

Proxy variables	Definitions	Predicted sign	a-priori hypotheses
Size	Natural logarithm of firm's sales	+/-	P_1/Size > 0
Growth	Growth of firm's sales	+/-	P_1/GS > 0
Liquidity	Cash conversion cycle	+/-	P_1/CCC < 0
Leverage	Debt to equity ratio	-	P_1/Lev < 0
Age	Age of firm from the starting year	+	P_1/Age > 0
Past profitability	One year lagged profitability	+	P_1/Past Profitability>0
Capital-output ratio	Ratio of total capital to total sales	+/-	P_1/Capital output <0
Market share	Ratio of sales to total industry sales	+	P_1/Market share > 0

ANALYSIS AND DISCUSSION

This section describes descriptive statistics summary, correlation, regression analysis and discussion of results.

DESCRIPTIVE STATISTICS AND ANALYSIS

Descriptive statistics includes the mean, standard deviation, minimum, and maximum, standard error of mean, kurtosis and skewness for the period 1996-2009. The data contains about 20 automobile firms for 216 firm-years observations. Table show that there are negative values at minimum values i.e., some firms have operated with losses during the study period.

Table 2 contains descriptive statistics of the variables used in this study. The table reveals that profit rate ranges between -189.39 per cent to 1638.92 per cent with mean of 22.29 per cent and a standard deviation 105.3. The same applies to growth, liquidity, leverage, past profitability capital-output ratio and market share, which show that the standard deviation is more than the mean. This implies that there is a high variations in the firm's mean. The table also reveals that profit rate, growth, leverage, age, past profitability, capital-output ratio and market share have a positive skewness, which indicates that the scores are clustered to the left at the low values. As for size and liquidity have a negative skew ness indicating clustering of scores are at the high and as for the kurtosis statistic, all variables except for market share show a positive kurtosis suggesting that the distribution has pecked or clustered in the centre, with long thin tails.

CORRELATION ANALYSIS

A correlation analysis was performed to verify a possible association between and among the variables, in order to test whether there is any linear correlation between and among the variables. Collinearity explains the dependence of one variable to other. When variables are highly correlated they both express essentially the same information. Table 3 reports the Pearson correlation coefficients of all the variables employed in the study. Simple correlations among the variables that are reported in Table 3 are quite low. The largest reported value (-0.58) was between market share and size. In this respect, **Kennedy (1985)** suggests that correlation values below 0.80 do not pose a potential multicollinearity problem. Hence, the performance variables used in this study do not seem to pose a serious multicollinearity problem and this allows for standard interpretation of the regression coefficients.

DISCUSSION OF RESULTS

Using pooled regression technique, the study ran the regression of the profitability on the firm structure variables like size, growth, liquidity, leverages, age, past profitability, capital-output ratio and market share with aim to investigate whether these variables have significant explanatory powers. The estimated results are reported in Table 4.

It can be observed from the table that the estimated value of the R-Square is 0.90 for whole automobile industry, 0.98 commercial vehicles sector, 0.97 for passenger cars and multi-utility vehicles sector and 0.93 for two and three wheelers sectors. This implies that more than 90 percent of the variation in profitability of the firms is jointly determined by the said variables. The value of F-statistic indicates that the overall model is good. The Durbin-Watson statistic is also close to 2 which imply that the successive values of estimated residuals are not dependent on each other. This means that there is evidence to accept that there is no auto correlation problem in the estimated model.

Regarding the significance of individual variables, the empirical results shows that size has statistically significant effect on profitability in the Indian Automobile Industry. However, in the overall pooled sample, firm size showed significant negative relation with profitability in the Indian Automobile Industry. This is consistent with the findings of **Singh and Whittington (1968)** and contradictory to the findings of **Samuels and Smith (1968),** who postulated positive relationship between size and profitability. The sector wise analysis showed that the size had a significant positive relationship with profitability in case of commercial vehicles and passenger cars and multiutility vehicles sector. This could be due to the changes in output either because of increased demand or reduction of costs. On the other hand, there was a significant negative relationship reported between size and profitability in the two and three wheelers sector. This was due to the reasons that larger firms can lead to organizational inefficiencies, higher bureaucratization and concept of x-inefficiency. X-inefficiency is a measure of the degree to which costs are higher than they need to be. X-inefficiency reasons that general managerial or technological inefficiency in larger firms cause higher production costs which end up in reductions in the bottom line i.e., profit rates decline. Among the various firms selected for the study, some firms showed positive relationships while others not so.

Table 4 also showed the results of regression of profitability fitted on growth of sales in all the selected firms, three sectors and whole industry. It is evident from the table that there was a significant variation in the regression co-efficient relating profitability to growth of sales between firms. Further, there is a positive relationship between the two variables (growth and profitability) except Hyundai Motors Ltd under passenger cars and multi-utility vehicles and Kinetic Motor Company Ltd, Hero Honda Motors Ltd and Majestic Auto Ltd under two and three wheeler sector. These results are consistent with the results of **Singh and Whittington (1968),** who also found positive relationship between growth and profitability in their study. This was due to increased motivation among employees who expect greater gains in the future, gains resulting from greater company size.

Consistent with **Deloof (2003), Reheman and Nasr (2007), Garcia-Teruel and Martinez-Solano (2007) and David M. Mathuva,** a negative relationship exists between the liquidity (cash conversion cycle) and profitability of selected automobile firms, three sectors and whole automobile industry. This was due to the fact that minimizing the investment in current assets can help in boosting profits. This ensures the liquid cash is not maintained in the business for long and that it is use to generate profits for the firm. These results suggest that managers can create value for their shareholder by reducing the number of days of the cash conversion cycle to its minimum.

Regarding the significance of the leverage, the empirical results presented in Table 4 showed that the majority of the Indian automobile firms, profitability are negatively significantly associated with the leverage. This piece of evidence is in line with Pecking Order Theory which postulates a negative correlation between the profitability and leverage. This is consist with the findings of **Rajan and Zingales (1995),** that is, higher profitable firms uses less debt. There are other evidence for this relationship such as informational asymmetry, high costs of external resources and inefficiency of the market. However, this piece of evidence is in contrast to the Static Trade-off Theory that states that more profitable firms have lower expected bankruptcy costs and higher tax benefits. Despite this, Scooters India Ltd under two and three wheelers sector continue to enjoy such large profit margins that firms using higher proportion of debt in their capital structure were still more profitable than firms using lower proportion of debt.

It is also apparent from Table 4 that firm age has significant effects on profitability. Perhaps, it is one of the strongest determinants of profitability in all the selected automobile firms. The co-efficient of the age of firms carries a positive sign, support our a priori expectation. This indicates that older firms to be more profitable because managing the licensing process yields significant experience in pre-empting market capacities, which can then yield superior profitability because of market capture. However, apart from profitability arising from market pre-emption activities, through superior management of the licensing process, firms also become more profitable because of several strategic or operational reasons, one of which is that they are able to tap in to the relevant customer segment and provide differentiated products that meet demand. All though, this results is consistent with the work of **Stanger (2000)**, Stanger (2000) argues that the relationship should be positive, since older firms are more likely to have attained diminishing costs of production over some range of sales and hence be able to operate more economically and efficiently than recently established ones. However, the study by **Hannan and Free man (1989)** suggest that older firms are more resistant to change in a competitive environment and newer technologies which may, as a result of the need to operate in an age-old standardized manner, leave older firms progressively outdated and lead to organization failure.

As far as past profitability's relation with profitability of the selected firm of Indian automobile industry is concerned, there was a significant positive relation during the years 1996-2009 as well as for the pooled sample. This indicates positive influences on profitability, confirming our hypothesis. This result conforms to the conclusions of **Singh and Whittington (1968).** Table 4 also showed that the co-efficient of capital-output ratio supported our hypothesis, suggesting positive relationship between increased capital-output ratio and profitability. This result is consistent with the work of **Hurdle (1974)**. Further, regression results suggest that market share is the most important determinant of profitability. The corresponding positive co-efficient suggests that selected Indian automobile firms have increased their profitability by increasing their market share.

POLICY IMPLICATIONS

It has been often argued that larger firms in an industry are relatively more efficient than the smaller ones. It this is not so, then why does a firm aspire to be larger and larger; and it this is so, then how do smaller and larger firms co-exist in the same industry. Every business is normally encountered with risks and uncertainties; bigger the firm it is expected to be stronger to face such risky and uncertain situations. Moreover a big firm because of its control over the market can buy up the best sites with location advantages, the superior technology, R&D and best professional experts. However, the findings of the study showed that "law of proportional effect" does not hold in the selected Indian automobile firms. While relatively bigger firms perform better in commercial vehicles and passenger cars and multiutility vehicles sector, the opposite hold true in two and three wheeler sector and the whole industry. These findings should be useful to the managerial authorities to decide on the extent to which firm size needs to be monitored and controlled.

Based on the empirical results obtained in this study, it is concluded that there is tendency of positive relationship between profitability and growth. Also the extent of this positive relationship is different in different firms, depending upon their ability and willingness to grow, which may further depend upon their factors like extent of monopoly power, growth of demand, market share, better labour relations and other managerial conditions etc.,. Further, the analyze of liquidity and profitability have identified critical management practices and are expected to assist managers in identifying areas where they might improve the financial performance of their operation. The results have provided owner-managers with information regarding the basic financial management practices used by their peers and their peers' attitudes towards these practices. Firms are capable of gaining sustainable competitive advantage by means of effective and efficient utilization of the resources of the organization through a careful reduction of the cash conversion cycle to its minimum. Therefore, managers can create profits for their companies by handling correctly the cash conversion cycle and keeping each different component (accounts receivables, accounts payables and inventory) to an optimum level. The relationship between leverage and profitability showed that the successful selection and use of the debt-to-equity ratio is one of the key elements of the firm's financial strategy.

The study is mainly of theoretical interest, as it examines size, growth, liquidity, leverage, age and profitability of firms and their inter-relationships. However, the empirical results obtained from the analysis of data are of importance to the owners and managers, interested in the growth and profitability of the firms. The policy of increasing total assets or sales with a view to increase profitability may not be rewarding in all cases. Therefore, such policies have to be carefully examined in view of the findings of this study, so that these may not lead to over-capitalization and ultimately reduce profitability. From the point of view of the economy, significant relationship between size and profitability supports the policy of liberalization, initiated in the Indian Economy since 1991. The study suggests that this policy of liberalization should further be strengthened.

CONCLUSION

The study has contributed to our knowledge on the series of factors associated with the profitability of selected firms in the Indian Automobile Industry. The primary aim of this study was to test the postulated hypotheses and to provide evidence with respect to the impact of firm structure to firm profitability, by examining such major factors as firm size, growth, liquidity, leverage, age, post profitability, market share and capital-output ratio. The study employed regression model in order to test the hypotheses, using profitability measured by the Rate of Return on Assets (PR) along with other independent variables using sample of 20 automobile firms in India. The results demonstrate that firm size and growth are important determinants of profitability in the Indian automobile industry and a positive relationship between profitability and firm size and growth. Further, the results suggest that liquidity and leverage had a negative impact on profitability. Referring the firm as a variable affecting the profitability, the study shows significant result which implied that firm age affect the profitability of a firm. Further more, this study has found empirical evidence that past profitability, capital-output ratio and market share are important determinants of profitability in the Indian automobile Industry. These principal findings can be summarized as in Table 5.

In conclusion, these finding have an interesting policy implications, which may add to the ongoing debate on the issue of firm structure and the firm profitability relations. The empirical findings of this study suggest that firm structure emerges as important factor affecting profitability. However, the results indicate that some of the independent variable considered in this study has weak impacts on profitability. These findings should be useful to the management authorities to decide on the extent to which firm structure needs to be monitored and controlled. The validity and the generalization of the conclusions mentioned are pending future research in other industries or sectors that ratifies or refutes them.

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TABLES

TABLE 2: DESCRIPTIVE STATISTICS OF INDEPENDENT AND DEPENDENT VARIABLES

20 Indian Automobile Firms-1996-2009 – 216 Firm-year observations (N = 216)							
Variables	**Mean ± SD**	**Standard Error of Mean**	**Median**	**Minimum**	**Maximum**	**Kurtosis**	**Skew ness**
PR	22.29 ± 105.3	6.62	14.58	-189.39	1638.92	222.83	14.44
Ln sales (size)	6.90 ± 1.70	0.11	6.86	0.92	10.39	0.01	-0.27
Growth	10.60 ± 36.83	2.32	10.13	-97.62	356.66	31.46	3.48
Liquidity (CCC)	29.90 ± 65.81	4.14	19.07	-225.76	312.03	5.58	-.18
Leverage	1.40 ± 3.18	0.20	0.71	0	41.37	106.68	9.18
Age	0.06 ± 0.02	0.001	0.06	0.02	0.19	5.38	1.62
Post profitability	18.67 ± 130.38	8.23	15.82	-1190.08	1638.92	124.98	4.51
Capital-output ratio	1.07 ± 130.38	0.44	0.26	-1.89	79.78	111.18	10.40
Market share	2.05 ± 2.85	0.18	0.12	0.01	9.66	-0.08	1.14

PR-Profit rate on total assets; Ln Sales-Natural logarithm of sales (Proxy for size); Growth-Sales Growth; CCC-Cash Conversion Cycle (proxy for liquidity); Leverage – Debt/ Equity; Age-Ratio of Depreciation of fixed assets; Past Profitability- Profitability for previous year; Capital-Output Ratio – Ratio of total capital to total sales; Market Share – Ratio of sales to total industry sales.

Source: Computed

TABLE: 3: CORRELATION MATRIX

	PR	Ln Sales	Growth	Liquidity	Leverage	Age	Past profitability	Capital output ratio	Market share
PR	1.00								
Ln Sales	0.04	1.00							
Growth	0.03	0.18	1.00						
Liquidity	-0.09	-0.11	-05.05	1.00					
Leverage	-0.003	-0.09	-0.01	0.02	1.00				
Age	0.04	0.29	-0.03	0.08	-0.05	1.00			
Past profitability	0.02	0.05	0.001	0.005	-0.01	0.34	1.00		
Capital output ratio	0.02	0.31	0.005	-0.02	-0.03	0.04	0.003	1.00	
Market share	0.10	-.58	-0.05	-0.05	0.11	-0.28	-0.11	0.06	1.00

PR-Profit rate on total assets; Ln Sales-Natural logarithm of sales (Proxy for size); Growth-Sales Growth; CCC-Cash Conversion Cycle (proxy for liquidity); Leverage – Debt/ Equity; Age-Ratio of Depreciation of fixed assets; Past Profitability- Profitability for previous year; Capital-Output Ratio – Ratio of total capital to total sales; Market Share – Ratio of sales to total industry sales.

Source: Computed

TABLE 4: REGRESSION ANALYSIS FOR OTHER FACTORS AFFECTING PROFITABILITY
[PR = β_0 + β_1 Size + β_2 Growth + β_3 Liquidity + β_4 Leverage + β_5 Age + β_6 Past Profitability + β_7 Capital Output Ratio + β_8 Market Share]

Particulars	Constant	Size	Growth	Liquidity	Leverage	Age	Past Profitability	Capital Output Ratio	Market Share	R^2	Adj R^2	F Value	DW
Ashok Leyland Ltd	87.97	7.71 (3.94)*	0.07 (2.58)**	-0.03 (3.41)*	-16.53 (2.47)***	96.77 (3.56)*	0.67 (1.68)	44.13 (1.75)	54.01 (4.20)*	0.99	0.97	56.38*	1.94
Tata Motors Ltd	36.87	0.89 (3.07)**	0.05 (3.57)*	-0.05 (0.83)	-33.09 (4.01)*	3.56 (3.84)*	0.43 (2.19)***	15.49 (3.91)*	94.63 (2.61)**	0.99	0.97	57.98*	2.01
Bajaj Tempo Ltd	-828.66	-183.1 (3.60)*	3.34 (2.29)**	-1.65 (2.69)***	-160.9 (2.22)***	112.4 (1.44)	4.93 (2.13)***	257.1 (0.93)	13.40 (2.79)**	0.88	0.81	28.20*	1.97
Eicher Motors Ltd	103.17	14.41 (3.69)*	0.15 (1.32)	-0.02 (4.07)*	-37.38 (2.67)***	87.34 (3.88)*	0.02 (3.07)**	87.19 (2.21)***	2.80 (2.56)***	0.94	0.89	7.84**	1.33
Swaraj Mazdar Ltd	32.59	20.33 (3.12)**	0.08 (4.08)*	-0.12 (3.19)**	-1.21 (1.16)	166.14 (4.15)*	0.17 (0.37)	226.1 (4.26)*	16.77 (0.89)	0.81	0.79	12.2*	1.98
Commercial Vehicles	**23.07**	**0.55 (3.37)***	**0.05 (2.46)*****	**-0.03 (2.45)*****	**-10.75 (3.90)***	**3.34 (1.68)**	**0.19 (2.68)****	**7.26 (2.48)****	**8.53 (0.72)**	**0.98**	**0.95**	**26.77***	**2.01**
Hindustan Motors Ltd	-138.74	13.67 (3.63)*	0.16 (2.70)**	-0.01 (0.01)	-3.36 (3.34)*	780.0 (1.62)	0.04 (4.08)*	69.72 (3.57)*	2.96 (0.35)	0.86	0.81	18.26*	1.80
Mahindra and Mahindra Ltd	73.25	4.49 (3.41)*	0.01 (3.02)**	-0.12 (4.39)*	-26.15 (2.64)**	109.37 (3.26)*	0.52 (1.64)	62.44 (2.64)**	145.01 (3.23)*	0.97	0.91	16.69*	2.03
Maruti Udyog Ltd	257.71	13.58 (4.14)*	0.14 (2.86)**	-0.45 (1.81)	-75.09 (4.60)*	93.65 (1.02)	0.20 (2.32)***	195.78 (5.79)*	19.95 (3.25)*	0.99	0.96	41.15*	1.99
Hyundai Motors	0.11	8.01 (7.41)*	-0.01 (4.03)*	-9.33 (3.97)*	-45.03 (8.11)*	101.33 (2.72)*	0.17 (1.20)	0.90 (4.44)*	8.0 (5.81)*	0.99	0.97	56.32*	1.96
Honda Siel Ltd	0.04	2.26 (4.19)*	0.32 (3.17)**	0.22 (2.86)**	-38.49 (3.98)*	199.95 (1.25)	0.41 (4.36)*	26.80 (2.29)***	1.14 (3.65)*	0.93	0.88	6.24**	1.72
Ford India Ltd	-0.25	9.79 (3.48)*	0.16 (3.08)**	-0.55 (4.15)*	-7.15 (1.12)	916.67 (3.37)*	0.83 (5.48)*	129.11 (3.53)*	17.46 (1.41)	0.83	0.76	8.62**	1.65
Passenger cars and Multi-utility Vehicles	**86.33**	**6.54 (2.13)*****	**0.08 (3.09)****	**-0.12 (4.77)***	**-12.79 (2.50)*****	**102.14 (1.19)**	**0.47 (2.42)*****	**23.19 (3.38)***	**26.91 (0.51)**	**0.97**	**0.90**	**14.54***	**1.98**

TABLE 4 (Continued ….)

Particulars	Constant	Size	Growth	Liquidity	Leverage	Age	Past Profitability	Capital Output Ratio	Market Share	R^2	Adj R^2	F Value	DW
Bajaj Auto Ltd	-82.17	12.56 (3.92)*	0.01 (4.09)*	-0.22 (2.36)***	-7.70 (3.22)**	30.14 (0.26)	0.48 (2.64)**	-16.82 (1.99)	21.89 (4.42)*	0.96	0.89	11.07**	1.92
LML Ltd	178.86	24.34 (0.65)	0.39 (2.79)**	-1.27 (2.59)***	-14.90 (5.93)*	286.65 (6.45)*	1.53 (2.32)***	128.90 (3.91)*	6.50 (1.56)	0.97	0.90	14.39*	1.75
Maharashtra Scooters Ltd	-17.06	1.47 (4.24)*	0.08 (3.67)*	-0.08 (2.96)**	-161.12 (3.61)*	126.80 (0.41)	0.18 (2.43)***	0.02 (0.06)	0.37 (2.44)***	0.80	0.72	12.00*	1.52
TVS Motor Company Ltd	83.88	-11.49 (3.56)*	0.04 (4.17)*	-0.48 (3.10)**	-28.50 (2.86)**	196.64 (4.78)*	0.24 (2.73)**	115.27 (0.75)	48.31 (1.49)	0.93	0.89	6.66**	1.81
Kinetic Motor Company Ltd	-4711.76	-923.72 (4.52)*	-9.49 (3.83)*	-3.61 (3.28)*	-5.51 (0.17)	371.18 (3.54)*	0.48 (4.68)*	290.42 (3.68)*	7.18 (1.18)	0.98	0.94	24.75*	1.86
Hero Honda Motors Ltd	247.99	36.06 (3.33)*	-0.32 (2.55)**	-0.64 (2.35)***	-41.92 (4.52)*	179.26 (2.47)***	0.16 (0.82)	-209.98 (3.99)*	79.12 (4.45)*	0.99	0.96	35.41*	1.66
Kinetic Engineering Ltd	-65.06	7.38 (6.02)*	0.54 (3.01)*	-0.14 (2.28)***	-0.42 (3.60)*	339.54 (4.51)*	0.71 (3.15)**	11.24 (2.95)**	3.15 (1.76)	0.95	0.86	10.21**	1.45
Majestic Auto Ltd	14.98	-9.34 (4.03)*	-0.04 (3.65)*	-0.03 (0.27)	-6.11 (3.91)*	971.39 (3.80)*	0.08 (0.22)	73.54 (3.51)*	2.45 (2.11)***	0.92	0.81	5.51**	1.37
Scooters India Ltd	804.21	-162.5 (3.52)*	1.23 (2.47)***	-0.53 (2.33)***	40.15 (1.58)	556.58 (4.39)*	0.01 (0.04)	4.52 (3.43)*	2.67 (1.12)	0.92	0.86	5.68**	1.25
Two & Three Wheelers	**194.82**	**-14.88** **(2.95)****	**0.23** **(2.80)****	**-0.44** **(3.67)***	**-19.68** **(2.73)****	**520.54** **(2.78)****	**0.20** **(3.41)***	**22.98** **(4.46)***	**33.52** **(0.59)**	**0.93**	**0.89**	**6.78***	**1.88**
Whole Industry	**19.54**	**-0.46** **(4.50)***	**0.06** **(2.13)*****	**-0.04** **(3.75)***	**-6.91** **(1.80)**	**146.73** **(3.96)***	**0.56** **(2.96)****	**20.39** **(2.09)*****	_	**0.90**	**0.85**	**6.54****	**1.68**

TABLE: 5: FINDING ON FIRM STRUCTURE VARIABLES AND PROFITABILITY RELATIONSHIPS

Firm Structure Variables	Measure of Performance on Profitability
Size of Firm	Larger firms are more Profitable (+)
Growth	Positive effects of growth on profitability
Liquidity	Negative relationship between profitability and liquidity (-)
Leverage	Positive effect with operating leverage (-)
Age	Older firms are more profitable (+)
Past profitability	Positively affect profitability (+)
Capital – output ratio	Positive association with the profitability
Market Share	Increased market share leads to improved profitability

Source: Empirical results of the study

PERCEPTION OF BANK EMPLOYEES TOWARDS ADOPTION OF INFORMATION TECHNOLOGY IN PRIVATE SECTOR BANKS OF INDIA

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ABSTRACT
Rapid strides made by the technology sector and their swift adoption by the competitors since the middle of the past decade have forced banks to get into the act by beginning to offer IT-facilitated products and services. The new private sector banks aggressively started pursuing technology-based service offering. Technology has resulted in improved quality of service, any time/any where banking, focused product delivery, cross selling opportunities, multi-channel touch points for consumption of services, etc. While development in technology have thrown-up an array of opportunities for the banks, they have also brought along a whole set of challenges to deal with. This study is design to explore bank employees' perception toward adoption of Information Technology to satisfy both sophisticated customers (who demand flexibility of interactions with no time and location constraint, security of information, privacy and convenience) as well as the organization's own needs (including more sophisticated services with more profit, security of networks, hardware and bank application, cost containment or reduction and customer loyalty) when implementing e-banking technologies. The study was conducted in four private sector banks of India from Bikaner to Jaipur regions of Rajasthan. Descriptive research methodology was used to accomplish the study using random convenience sampling technique. A questionnaire was developed based on five parameters Relative advantage, Complexity, Potential risk, Strategic advantage by decision-making process and Innovation and development to ascertain the perception of the employees. The data was collected from 180 bank employees (Executive, Manager, Officer) through structured questionnaire method out of which 129 employees replied to the questionnaire. Simple frequency percentage was adopted as the statistical measure and hypothesis testing was analyzed using chi-square. The result reveals that all the banks are using Information technology as a strategic weapon to remain competitive against other. In conclusion, the study revealed that Information Technology has tremendously improved growth and performance of the banks. Information Technology has lead to increase customer satisfaction, improved operational efficiency, reduced transaction time, gives the bank a competitive edge reduced the running cost and ushered in swift response in service delivery.

KEYWORDS
Relative advantage, Complexity, Potential risk, Strategic advantage.

INTRODUCTION
The new information technology (IT) is turning into the most important factor in the future development of banking, influencing banks' marketing and business strategies. The deregulation of the banking industry coupled with the emergence of new technologies, are enabling new competitors to enter the financial services market quickly and efficiently. The driving forces behind the rapid transformation of banks are influencing changes in the economic environment: innovations in information technology, innovations in financial products, liberalization and consolidation of financial markets, deregulation of financial inter-mediation etc. From acquiring a customer, servicing the customer's needs, building the customer relationship to managing employees, processes and partners, every action in the bank's value chain relies on technology to ensure efficacy and efficiency.

The opening up of the Indian banking sector to private players acted as 'the tipping point' for this transformation. The deregulatory efforts prompted many financial institutions (like HDFC and ICICI) and non-financial institutions enter the banking arena.

With the entry of private players into retail banking and with multi-nationals focusing on the individual consumer in a big way, the banking system underwent a phenomenal change. Multi-channel banking gained prominence. For the first time consumers got the choice of conducting transactions either the traditional way (through the bank branch), through ATMs, the telephone or through the Net. Technology played a key role in providing this multi-service platform.

ICICI Bank seeks to be at the forefront of technology usage in the financial services sector. Information technology is a strategic tool for business operations, providing the bank with a competitive advantage and improved productivity and efficiencies.

This study is design to explore employee's perception towards adoption of Information Technology to satisfy both more sophisticated customers (who demand flexibility of interactions with no time and location constraint, security of information, privacy and convenience) as well as the organization's own needs (including more sophisticated services with more profit, security of networks, hardware and bank application, cost containment or reduction and customer loyalty) when implementing e-banking technologies.

LITERATURE REVIEW
This section will concentrate on summarized findings of relevant researches.

SURVEY OF RELEVANT CONTRIBUTIONS

Xiao Ling Qiu (International Journal of Business and Management, Vol. 3, No. 2) conducted a study on "Chinese Customers' Banking Habits and E-banking Barriers". The purpose of this study was to investigate the Chinese customers' banking habits and the major barriers prevent them from participating in E-banking. The study was conducted in Chinatown area in New York City. Responses were gathered from 110 respondents. The findings indicated that the Chinese customers did most of the banking transactions via teller stations. The Chinese customers' major concerns of online banking included security concern and the lack of bank staff support when they suffered from technical problems at home. The aging Chinese customers with low education and low income were less likely to participate in E-banking.

Wendy Wan et al. (2005) have studied the customers' adoption of banking channels in Hong Kong. The study covers four major banking channels namely ATM, Branch Banking, Telephone Banking and Internet Banking. It segment customers based on demographic variables and psychological beliefs about the positive attributes processed by the channels. The psychological factors are Ease of use, Transaction security, transaction accuracy, speediness, convenience, time utility, provision of different personal services, social desirability, usefulness, economic benefits and user involvement.

Mukherjee and Nath (2003) conducted a study on "Online banking adoption and Diffusion". From the study it was found that two reasons can be established for Online banking adoption and Diffusion. First, banks can save costs by offering online banking services. Second, banks can reduce their branch networks and downsize the number of service staff, which opens the way for online banking as many customers feel that branch banking requires too much time and effort.

Leblanc (1990) in his study of Canadian Bank customers found that the main consumer motivation for using such technology was related to accessibility or convenience. Leblanc also found that users tended to be more educated and believed that technology improved service quality, presented little or no risk and was compatible with their need for a fast and easy to use service

H.S. Srivastav, Dr. R. Srinivasan conducted a study on "Banking Channel Perceptions-An Indian Youth perspective" This study uses psychographics to study the banking channel adaptation and the trends in the retail banking scenario in Karnataka, India. It has been found that people clearly want convenience and security in their choice of banking channel

OBJECTIVE OF THE STUDY

- To investigate the relative advantage provided by the bank to the customers.
- To explore the complexities faced by the bank employees in providing services to the customer.
- To understand the potential risk factors faced by the bank employees and customers.
- To find out different strategies adopted by bank employees to smoothen their decision making process.
- To study the Innovation techniques adopted by private banks.

HYPOTHESIS OF THE STUDY

Five hypotheses were formulated for the study.

- H1: There is a significant difference between the relative advantages provided by different private banks to the adoption of IT.
- H2: There is a significant difference between complexities faced by employees of different private banks to adoption of IT banking services.
- H3: There is a significant difference between potential risks faced by employees of different private banks to the adoption of IT banking services.
- H4: There is a significant difference between strategies adopted by employees of different private banks in smoothening their decision making process to the adoption of IT banking services
- H5: There is a significant difference between Innovation and Development adopted by different private banks to the adoption of IT banking services.

RESEARCH METHODOLOGY

The study was conducted in four private sector banks (ICICI, HDFC, AXIS, INDUSIND) in India from Bikaner to Jaipur regions of Rajasthan. Descriptive research methodology was used to accomplish the study using random convenience sampling technique. The questionnaire consists of three sections. Section 1: Demographic profile of the Respondents, Section 2: Employment profile of the Respondents, Section 3: Employee's opinion about awareness of customers towards banking services, Section 4: It was developed based on five parameters Relative advantage, Complexity, Potential risk, Strategic advantage by decision-making process and Innovation and development to ascertain the perception of the employees. Five point Likert scale is used to elicit responses on the questionnaire.

The data was collected from 180 bank employees (Executive, Manager, Officer) through structured questionnaire method, E-mail and personal interview, Out of which 129 employees replied with full information. ICICI bank- 45, HDFC bank- 38, AXIS bank- 22, INDUSIND bank- 24. The data collected were tabulated and analyzed for the purpose of giving precise and concise information. Simple frequency percentage and chi-square test were applied.

RESULT AND DISCUSSION

An attempt has been made to study bank employee's preferences towards adoption of e-banking services in private sector banks.

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Demographic Variables	Categories	ICICI	HDFC	AXIS	INDUSIND
Sex	Male	33 (73)	30 (79)	17 (77)	16 (73)
	Female	12 (27)	8 (21)	5 (23)	6 (27)
Age	18 yrs-25 yrs	22 (49)	7 (18)	11 (50)	8 (36)
	25yrs-36yrs	19 (42)	23 (61)	7 (32)	9 (41)
	36 yrs-50 yrs	2 (4)	5 (13)	2 (9)	3 (14)
	50 yrs+	2 (4)	3 (8)	2 (9)	2 (9)

Figures in brackets denotes % to column total

Source: primary data-Questionnaire

SEX OF THE RESPONDENTS

Sex as a personal variable was found to have a significant effect on employee's preferences. In the above table, there are 73 percent of male respondents and 27 percent of female respondents in ICICI bank, 79 percent of male respondents and 21 percent of female respondents in HDFC bank, 77 percent of male respondents and 23 percent of female respondents in AXIS bank, 73 percent of male respondents and 27 percent of female respondents in INDUSIND .The survey revealed that the number of male employees are more than female employees.

AGE OF THE RESPONDENTS

Age is the factor that determines job opportunity according to different age category & experience of the employees. In ICICI, HDFC, AXIS & INDUSIND banks most of the respondents belong to the age group of 25-36 years. The result revealed that there are number of job opportunity for age group of 25-36 years in private sector banks.

TABLE 2: EMPLOYMENT PROFILE OF THE RESPONDENTS

Employment Variables	Categories	ICICI	HDFC	AXIS	INDUSIND
Designation	Executives	16 (36)	14 (37)	9 (41)	10 (45)
	Manager	8 (18)	9 (24)	6 (21)	5 (23)
	Officer	21 (47)	15 (39)	7 (32)	7 (32)
Experience	< 5 yrs	22 (19)	7 (18)	11 (50)	8 (36)
	5yrs-10yrs	19 (42)	23 (61)	7 (32)	9 (41)
	10 yrs-15 yrs	2 (4)	5 (13)	2 (9)	3 (14)
	>15 yrs	2 (4)	3 (8)	2 (9)	2 (9)
Qualification	Diploma	4 (9)	2 (5)	2 (9)	1 (5)
	Bachelor Degree	8 (18)	4 (11)	5 (23)	3 (14)
	PG Diploma	9 (20)	6 (16)	3 (14)	6 (27)
	PG(Professional Degree)	8 (18)	8 (21)	5 (23)	5 (23)
		16 (36)	18 (47)	7 (32)	7 (32)
Timing of Induction Training Program	0-10 hour 11-20 hour 21-40 hour 41 hr & more	13 (29)	18 (47)	3 (14)	3 (14)
		4 (9)	5 (13)	5 (23)	4 (18)
		10 (22)	7 (18)	8 (36)	5 (23)
		18 (40)	8 (21)	6 (27)	10 (45)
Computer and Internet Training Program	0-10 hour 11-20 hour 21-40 hour 41 hr & more	21 (47)	23 (61)	3 (14)	2 (9)
		3 (7)	4 (11)	3 (14)	5 (23)
		8 (18)	4 (11)	7 (32)	7 (32)
		13 (29)	7 (18)	9 (41)	8 (36)
Estimated work by computer daily	0-2 hour 2-5 hour 5-9 hour 9 hr & more	6 (13)	22 (58)	2 (9)	4 (18)
		6 (13)	6 (16)	5 (23)	4 (18)
		14 (31)	6 (16)	5 (23)	6 (27)
		19 (42)	4 (11)	10 (45)	8 (36)

Figures in brackets denotes % to column total

Source: primary data-Questionnaire

DESIGNATION OF THE RESPONDENTS

Designation is the factor that determines job position of the employee in the organization. In ICICI, HDFC, AXIS & INDUSIND banks most of the respondents belong to the age group of 25-36 years. The result revealed that popularity for banking jobs is among age group of 25-36 years in private sector banks.

EXPERIENCES OF THE RESPONDENTS

Experience is the factor that determines skill and knowledge of the employees. In ICICI, HDFC, AXIS & INDUSIND banks most of the respondents belong to the category between 5-10 years and <5 years. The result reveals the increasing number of talent pool in different operational areas of banks.

QUALIFICATION OF THE RESPONDENTS

Qualification is the factor that fulfills the conditions of being qualified. Different banks check the basic qualification required to appear for the entrance test being conducted to fulfill their vacancies. Majority of educational qualification being demanded by banks is post graduation that includes M.Com, M.B.A., ICWAI and others.47% employee of HDFC, 36% of ICICI and 32% of AXIS and INDUSIND employees are post graduate.

INDUCTION TRAINING PROGRAM OF THE RESPONDENTS

Induction training program is organized by the banks for new starter to help them do their job better and quicker, adjust or acclimatize quickly and effectively into their new working environment.47% of employees prefer 0-10 hours of induction program in HDFC, 40% of employees of ICICI, 45% of INDUSIND employees, 27% of AXIS employees and 21% of HDFC employees prefer more than 41 hours of induction program.

COMPUTER AND INTERNET TRAINING PROGRAM OF THE RESPONDENTS

Computer and internet training program becomes compulsory for organization to meet the increasing need of customer data protection and to meet daily task. Computer is a compulsory paper for the clerks and probationary officer.41% employees of AXIS bank, 36 % employees of IDUSIND bank, 29% employees of ICICI bank and 18% employees of HDFC bank have attended more than 41 hours of training program.

ESTIMATED WORK BY RESPONDENTS ON COMPUTER DAILY

Working on computer makes the task easier, save time and provide accuracy. It improves organizational productivity and efficiency. The study found that majority of respondents is using computers more than 9 hours in their daily task.

TABLE 3: EMPLOYEE'S OPINION ABOUT AWARENESS OF CUSTOMERS TOWARDS BANKING SERVICES

Variables	ICICI	HDFC	AXIS	INDUSIND
ATM Banking	78.22 72.44 64.88	76.31	80 73.63 72.63	73.63
Branch Banking	68.44	78.94 75.78	78.18	74.54
Internet Banking		71.57		72.72
Mobile/Tele Banking				70.90

Figures denotes % to column

Source: primary data-Questionnaire

Customer awareness must be an important part of an overall information security education program; consumer awareness programs create more informed buying decisions. According to employees opinion maximum customers are using ATMs as direct banking channel.78.94 % of customers are using branch banking, 75.77 % of customers are using Internet banking and 78.18% of customers are using mobile/tele banking facilities provided by different private banks. The study shows the increasing popularity of Internet banking and mobile banking besides ATMs and branch banking among customers.

CHI-SQUARE TEST

The chi-square was used to test the significance of association between two attributes. The data were gathered on 5-point likert scale.

H1: Association between bank employee's opinions on relative advantages provided by different private banks to the adoption of IT.

Relative advantage is an important factor in determining adoption of new innovations. Likewise, as IT banking services allow customers to access their banking accounts from any location, at any time of the day, it provides tremendous advantage and convenience to users. It also gives customers greater control over managing their finances, as they are able to check their accounts easily.

Ho: There is no significant difference between the relative advantages provided by different private banks to the adoption of IT.

Ha: There is a significant difference between the relative advantages provided by different private banks to the adoption of IT

TABLE 4: OBSERVED FREQUENCY-RELATIVE ADVANTAGE

S.No.	Relative Advantage	ICICI	HDFC	AXIS	INDUSIND	ROW TOTAL
1	Safety and Convenience	81.33333	76.84211	76.36364	72.72727	307.2663
2	Time and location constraint	79.11111	75.78947	72.72727	73.63636	301.2642
3	Reduce costs	83.11111	74.73684	76.36364	77.27273	311.4843
4	Save time of bank customers	86.22222	76.84211	74.78261	70	307.8469
5	Daily responsibilities	80	71.57895	75.45455	68.18182	295.2153
6	Higher opportunities	79.55556	79.47368	77.27273	74.54545	310.8474
7	Sophisticated services	67.55556	75.78947	72.72727	65.45455	281.5268
	COLUMN TOTAL	556.8889	531.0526	525.6917	501.8182	**2115.451**

Source: primary data-Questionnaire

TABLE 5: OBSERVED FREQUENCY AND EXPECTED FREQUENCY -RELATIVE ADVANTAGE

S.No.	Relative Advantage	ICICI		HDFC		AXIS		INDUSIND	
F1	**Safety and Convenience**	81.333 (fo)	80.887 (fe)	76.842 (fo)	77.134 (fe)	76.363 (fo)	76.355 (fe)	72.727 (fo)	72.888 (fe)
F2	**Time and location constraint**	79.111 (fo)	79.307 (fe)	75.789 (fo)	75.627 (fe)	72.727 (fo)	74.864 (fe)	73.636 (fo)	71.464 (fe)
F3	**Reduce costs**	83.111 (fo)	81.997 (fe)	74.736 (fo)	78.193 (fe)	76.363 (fo)	77.404 (fe)	77.272 (fo)	73.888 (fe)
F4	**Save time of bank customers**	86.222 (fo)	81.040 (fe)	76.842 (fo)	77.280 (fe)	74.782 (fo)	76.500 (fe)	70 (fo)	73.026 (fe)
F5	**Daily responsibilities**	80 (fo)	77.714 (fe)	71.578 (fo)	74.109 (fe)	75.454 (fo)	73.361 (fe)	68.181 (fo)	70.029 (fe)
F6	**Higher opportunities**	79.555 (fo)	81.830 (fe)	79.473 (fo)	78.033 (fe)	77.272 (fo)	77.245 (fe)	74.545 (fo)	73.737 (fe)
F7	**Sophisticated services**	67.555 (fo)	74.111 (fe)	75.789 (fo)	70.673 (fe)	72.727 (fo)	69.959 (fe)	65.454 (fo)	66.782 (fe)

Source: primary data-Questionnaire

TABLE 6: GRAND TOTAL OF RELATIVE ADVANTAGE

Variables	ICICI $(fo-fe)^2/fe$	HDFC $(fo-fe)^2/fe$	AXIS $(fo-fe)^2/fe$	INDUSIND $(fo-fe)^2/fe$	Row Total $\sum(fo-fe)^2/fe$
F1	0.0025	0.0011	7.67E	0.0003	0.0039
F2	0.0005	0.0003	0.0610	0.0659	0.1278
F3	0.0151	0.1528	0.0139	0.1549	0.3368
F4	0.3314	0.0024	0.0385	0.1253	0.4978
F5	0.0672	0.0864	0.0597	0.0487	0.2620
F6	0.0632	0.0265	9.33E0	0.0088	0.0986
F7	0.5799	0.3703	0.1094	0.0264	1.0862
C.T.	1.0598	0.6401	0.2827	0.4307	**2.4134(G.T.)**

C.T.-Column Total, G.T.-Grand Total

Source: primary data-Questionnaire

TABLE 7: CHI SQUARE TEST-RELATIVE ADVANTAGE

Level of Significance (5%)	Number of Rows	Number of Columns	Degrees of Freedom	p-Value	Calculated value	Tabulated value	Result
0.05	7	4	18	0.999995	2.4134	28.869	Accept

Source: primary data-Questionnaire

The table shows that, Chi-square test was used at 5 percent significant level. The result reveals that p-value is greater than Level of significance and the calculated value is less than the tabulated value. So, the null hypothesis is accepted. This reveals that there is no significant difference between the relative advantages provided by different private banks to the adoption of IT.

H2: Association between employee's perceptions on complexities faced by employees of different private banks to adoption of IT banking services

Innovation with substantial complexity requires more technical skills and needs greater implementation and operational efforts to increase its chances of adoption. Bank has to continuously monitor the integrity of data, needs adequate investment for adoption of services in this cut throat competition. Trust, security and privacy are the important pillars that make the adoption of IT banking services faster. More on, all the banks have to invest on promotional plans to make the customer feel easy of the complex emerging technologies.

Ho: There is no significant difference between complexities faced by employees of different private banks to adoption of IT banking services

Ha: There is a significant difference between complexities faced by employees of different private banks to adoption of IT banking services

TABLE 8: OBSERVED FREQUENCY-COMPLEXITY

S.No.	Complexity	ICICI	HDFC	AXIS	INDUSIND	ROW TOTAL
F1	Monitor the integrity	75.1111	62.6315	44.2105	69.09091	251.0441
F2	Adequate investments	80	76.8421	45.7894	73.6363	276.2679
F3	Trust –security	80.4444	77.3684	43.6842	72.7272	274.2243
F4	Promotional plans	52	73.15789	41.5789	75.4545	242.1914
F5	Trust –privacy	79.1111	73.6842	41.5789	73.6363	268.0106
Column total		366.6667	363.6842	216.8421	364.5455	1311.738

SOURCE: PRIMARY DATA-QUESTIONNAIRE

TABLE 9: OBSERVED FREQUENCY AND EXPECTED FREQUENCY - COMPLEXITY

S.No.	Complexity	ICICI		HDFC		AXIS		INDUSIND	
F1	Monitor the integrity	75.111 (fo)	70.173 (fe)	62.631 (fo)	69.602 (fe)	44.210 (fo)	41.499 (fe)	69.090 (fo)	69.767 (fe)
F2	Adequate investments	80 (fo)	77.224 (fe)	76.842 (fo)	76.596 (fe)	45.789 (fo)	45.669 (fe)	73.636 (fo)	76.777 (fe)
F3	Trust –security	80.444 (fo)	76.653 (fe)	77.368 (fo)	76.029 (fe)	43.684 (fo)	45.331 (fe)	77.272 (fo)	76.209 (fe)
F4	Promotional plans	52 (fo)	67.699 (fe)	73.157 (fo)	67.148 (fe)	41.578 (fo)	40.036 (fe)	75.454 (fo)	67.307 (fe)
F5	Trust –privacy	79.111 (fo)	74.916 (fe)	73.684 (fo)	74.306 (fe)	41.578 (fo)	44.304 (fe)	73.636 (fo)	74.482 (fe)

Source: primary data-Questionnaire

TABLE 10: GRAND TOTAL OF COMPLEXITY

Variables	ICICI $(fo\text{-}fe)^2/fe$	HDFC $(fo\text{-}fe)^2/fe$	AXIS $(fo\text{-}fe)^2/fe$	INDUSIND $(fo\text{-}fe)^2/fe$	Row Total $\sum(fo\text{-}fe)^2/fe$
F1	0.3474	0.6982	0.1770	0.0065	1.2292
F2	0.0998	0.0007	0.0003	0.1285	0.2293
F3	0.1875	0.0235	0.0598	0.1591	0.4301
F4	3.6405	0.5378	0.0594	0.9861	5.2239
F5	0.2349	0.0052	0.1676	0.0096	0.4174
C.T.	4.5101	1.2656	0.4643	1.2899	**7.5300 (G.T)**

C.T.-Column Total, G.T.-Grand Total

Source: primary data-Questionnaire

TABLE 11: CHI SQUARE TEST- COMPLEXITY

Level of Significance (5%)	Number of Rows	Number of Columns	Degrees of Freedom	p-Value	Calculated value	Tabulated value	Result
0.05	5	4	15	0.11039	7.5300	24.996	Accepted

Source: primary data-Questionnaire

The table shows that, Chi-square test was used at 5 percent significant level. The result reveals that p-value is grater than Level of significance and the calculated value is less than the tabulated value. So, the null hypothesis is accepted. This reveals that there is no significant difference between complexities faced by employees of different private banks to adoption of IT banking services

H3: Association between potential risks faced by employees of different private banks to the adoption of IT banking services

Risk is an additional dimension in diffusion and adoption. A common and widely recognized obstacle to electronic commerce adoption has been the lack of security and privacy over the Internet. This has led many to view Internet commerce as a risky undertaking. Thus, it is expected that only individuals who perceive using Internet banking as a low risk undertaking would be inclined to adopt it. This leads to the hypothesis:

Ho: There is no significant difference between potential risks faced by employees of different private banks to the adoption of IT banking services

Ha: There is a significant difference between potential risks faced by employees of different private banks to the adoption of IT banking services

TABLE 12: OBSERVED FREQUENCY- POTENTIAL RISK

S.No.	Potential Risk	ICICI	HDFC	AXIS	INDUSIND	ROW TOTAL
F1	Knowledge	60	74.73684	70	70	274.7368
F2	Data's integrity	73.77778	77.89474	72.72727	70	294.3998
F3	Information security	78.66667	76.84211	66.36364	73.63636	295.5088
F4	Expertise and training	65.33333	80.52632	64.54545	70	280.4051
	COLUMN TOTAL	277.7778	310	273.6364	283.6364	1145.051

Source: primary data-Questionnaire

TABLE 13: OBSERVED FREQUENCY AND EXPECTED FREQUENCY - POTENTIAL RISK

S.No.	Potential Risk	ICICI		HDFC		AXIS		INDUSIND	
F1	Knowledge	60 (fo)	66.648 (fe)	74.736 (fo)	74.379 (fe)	70 (fo)	65.654 (fe)	70 (fo)	68.054 (fe)
F2	Data's integrity	73.777 (fo)	71.418 (fe)	77.894 (fo)	79.702 (fe)	72.727 (fo)	70.353 (fe)	70 (fo)	72.924 (fe)
F3	Information security	78.666 (fo)	71.687 (fe)	76.842 (fo)	80.003 (fe)	66.363 (fo)	70.618 (fe)	73.636 (fo)	73.199 (fe)
F4	Expertise and training	65.333 (fo)	68.023 (fe)	80.526 (fo)	75.914 (fe)	64.545 (fo)	67.009 (fe)	70 (fo)	69.458 (fe)

Source: primary data-Questionnaire

TABLE 14: GRAND TOTAL OF POTENTIAL RISK

Variables	ICICI $(fo\text{-}fe)^2/fe$	HDFC $(fo\text{-}fe)^2/fe$	AXIS $(fo\text{-}fe)^2/fe$	INDUSIND $(fo\text{-}fe)^2/fe$	Row Total $\sum(fo\text{-}fe)^2/fe$
F1	0.6632	0.0017	0.2875	0.0556	1.0081
F2	0.0779	0.0410	0.0800	0.1172	0.3163
F3	0.6795	0.1249	0.2563	0.0026	1.0633
F4	0.1064	0.2802	0.0905	0.0042	0.4814
C.T.	1.527	0.4478	0.7146	0.1797	2.8692**(G.T.)**

C.T.-Column Total, G.T.-Grand Total

Source: primary data-Questionnaire

TABLE 15: CHI SQUARE TEST- POTENTIAL RISK

Level of Significance (5%)	Number of Rows	Number of Columns	Degrees of Freedom	p-Value	Calculated value	Tabulated value	Result
0.05	4	4	9	0.4122	2.8692	16.919	Accepted

Source: primary data-Questionnaire

The table shows that, Chi-square test was used at 5 percent significant level. The result reveals that p-value is greater than Level of significance and the calculated value is less than the tabulated value. So, the null hypothesis is accepted. This reveals that there is no significant difference between potential risks faced by employees of different private banks to the adoption of IT banking services

H4: Association between different strategies adopted by employees of different private banks in smoothening their decision making process to the adoption of IT banking services

Information Technology in banks help in setting IT infrastructure for information network to provide the layer of technology necessary to perform the data storage and analysis processing. So the IT assets of the firm are critical to the decision making process for support of the actual systems. Constant evaluation of alternatives ,displaying Information on web page, financial feasibility study helps in overcoming competition pressure and smoothening the decision making process.

Ho: There is no significant difference between strategies adopted by employees of different private banks in smoothening their decision making process to the adoption of IT banking services

Ha: There is a significant difference between strategies adopted by employees of different private banks in smoothening their decision making process to the adoption of IT banking services

TABLE 16: OBSERVED FREQUENCY- STRATEGIC ADVANTAGE BY DECISION MAKING PROCESS

S.No.	Strategic Advantage by Decision making Process	ICICI	HDFC	AXIS	INDUSIND	ROW TOTAL
F1	Information network	76.88889	74.21053	62.72727	70.90909	284.7358
F2	Selection criteria	76.5	76.31579	65.45455	66.36364	284.634
F3	Financial tools	75.61111	72.10526	60.90909	68.18182	276.8073
F4	IT by competitor	65.38889	75.78947	69.09091	74.54545	284.8147
F5	Impact on function of bank	69.05556	82.10526	62.72727	69.09091	282.979
F6	Information on web page	65.11111	72.10526	74.54545	68.18182	279.9436
F7	Choice of IT	76.66667	72.63158	65.45455	72.72727	287.4801
F8	Problems-implementation	67.11111	72.63158	66.36364	67.27273	273.3791
F9	Results financial feasibility study	68.33333	72.10526	69.09091	73.63636	283.1659
F10	Sources of resistance to change	75.05556	70.52632	70.90909	61.81818	278.3091
	COLUMN TOTAL	715.7222	740.5263	667.2727	692.7273	2816.249

Source: primary data-Questionnaire

TABLE 17: OBSERVED FREQUENCY AND EXPECTED FREQUENCY - STRATEGIC ADVANTAGE BY DECISION MAKING PROCESS

S.No.	Strategic Advantage by Decision making Process	ICICI		HDFC		AXIS		INDUSIND	
F1	Information network	76.888 (fo)	72.362 (fe)	74.210 (fo)	74.870 (fe)	62.727 (fo)	67.464 (fe)	70.909 (fo)	70.037 (fe)
F2	Selection criteria	76.5 (fo)	72.336 (fe)	76.315 (fo)	74.843 (fe)	65.454 (fo)	67.440 (fe)	66.363 (fo)	70.012 (fe)
F3	Financial tools	75.611 (fo)	70.347 (fe)	72.105 (fo)	72.785 (fe)	60.909 (fo)	65.585 (fe)	68.181 (fo)	68.087 (fe)
F4	IT by competitor	65.388 (fo)	72.382 (fe)	75.789 (fo)	74.891 (fe)	69.090 (fo)	67.483 (fe)	74.545 (fo)	70.057 (fe)
F5	Impact on function of bank	69.055 (fo)	71.916 (fe)	82.105 (fo)	74.408 (fe)	62.727 (fo)	67.048 (fe)	69.090 (fo)	69.605 (fe)
F6	Information on web page	65.111 (fo)	71.144 (fe)	72.105 (fo)	73.610 (fe)	74.545 (fo)	66.328 (fe)	68.181 (fo)	68.859 (fe)
F7	Choice of IT	76.666 (fo)	73.060 (fe)	72.631 (fo)	75.592 (fe)	65.454 (fo)	68.114 (fe)	72.727 (fo)	70.712 (fe)
F8	Problems-implementation	67.111 (fo)	69.476 (fe)	72.631 (fo)	71.884 (fe)	66.363 (fo)	64.773 (fe)	67.272 (fo)	67.244 (fe)
F9	Results financial feasibility study	68.333 (fo)	71.963 (fe)	72.105 (fo)	74.457 (fe)	69.090 (fo)	67.092 (fe)	73.636 (fo)	69.651 (fe)
F10	Sources of resistance to change	75.055 (fo)	70.729 (fe)	70.526 (fo)	73.180 (fe)	70.909 (fo)	65.941 (fe)	61.818 (fo)	68.457 (fe)

Source: primary data-Questionnaire

TABLE 18: GRAND TOTAL OF STRATEGIC ADVANTAGE BY DECISION MAKING PROCESS

Variables	ICICI $(fo-fe)^2/ fe$	HDFC $(fo-fe)^2/ fe$	AXIS $(fo-fe)^2/ fe$	INDUSIND $(fo-fe)^2/ fe$	Row Total $\sum(fo-fe)^2/ fe$
F1	0.2831	0.0058	0.3326	0.0108	0.6323
F2	0.2396	0.0289	0.0584	0.1902	0.5172
F3	0.3938	0.0063	0.3334	0.0001	0.7337
F4	0.6758	0.0107	0.0383	0.2875	1.0123
F5	0.1138	0.7961	0.2784	0.0038	1.1921
F6	0.5117	0.0307	1.0178	0.0066	1.5670
F7	0.178	0.1159	0.1038	0.0573	0.4552
F8	0.0805	0.0077	0.0390	1.19E-	0.1273
F9	0.1832	0.0743	0.0595	0.2279	0.5449
F10	0.2646	0.0962	0.3742	0.6438	1.3789
C.T	2.9241	1.1731	2.6358	1.4283	**8.1613(G.T.)**

C.T.-Column Total, G.T.-Grand Total

Source: primary data-Questionnaire

TABLE 19: CHI SQUARE TEST- STRATEGIC ADVANTAGE BY DECISION MAKING PROCESS

Level of Significance (5%)	Number of Rows	Number of Columns	Degrees of Freedom	p-Value	Calculated value	Tabulated value	Result
0.05	10	4	27	0.517969	8.1613	40.113	Accepted

Source: primary data-Questionnaire

The table shows that, Chi-square test was used at 5 percent significant level. The result reveals that p-value is grater than Level of significance and the calculated value is less than the tabulated value. So, the null hypothesis is accepted. This reveals that there is no significant difference between strategies adopted by employees of different private banks in smoothening their decision making process to the adoption of IT banking services

H5: Association between Innovation and Development adopted by private banks to adoption of IT banking services

Technology plays a key role in the performance of banks. Pushed by growing consumer demand and the fear of losing market share, banks are investing heavily in PC banking technology. Collaborating with hardware, software, telecommunications and other companies, banks are introducing new ways for consumers to access their account balances, transfer funds, pay bills, and buy goods and services without using cash, mailing a check, or leaving home.

Ho: There is no significant difference between Innovation and Development adopted by different private banks to the adoption of IT banking services.

Ha: There is a significant difference between Innovation and Development adopted by different private banks to the adoption of IT banking services.

TABLE 20: OBSERVED FREQUENCY- INNOVATION AND DEVELOPMENT

S.No.	Innovation and Development	ICICI	HDFC	AXIS	INDUSIND	ROW TOTAL
F1	Reduce production costs	72.88889	75.78947	72.72727	70.90909	292.3147
F2	Substantial savings	74.38889	69.47368	70.90909	60.90909	275.6808
F3	Improve firm's productivity	75.55556	73.33333	70	65.45455	284.3434
F4	Quality of products or services	75.27778	77.89474	70.90909	65.45455	289.5362
	COLUMN TOTAL	298.1111	296.4912	284.5455	262.7273	1141.875

Source: primary data-Questionnaire

TABLE 21: OBSERVED FREQUENCY AND EXPECTED FREQUENCY - INNOVATION AND DEVELOPMENT

S.No.	Innovation and Development	ICICI		HDFC		AXIS		INDUSIND	
F1	Reduce production costs	72.888 (fo)	76.315 (fe)	75.789 (fo)	75.900 (fe)	72.727 (fo)	72.842 (fe)	70.909 (fo)	67.256 (fe)
F2	Substantial savings	74.388 (fo)	71.972 (fe)	69.473 (fo)	71.581 (fe)	70.909 (fo)	68.697 (fe)	60.909 (fo)	63.429 (fe)
F3	Improve firm's productivity	75.555 (fo)	74.233 (fe)	73.333 (fo)	73.830 (fe)	70 (fo)	70.855 (fe)	65.454 (fo)	65.422 (fe)
F4	Quality of products or services	75.277 (fo)	75.589 (fe)	77.894 (fo)	75.178 (fe)	70.909 (fo)	72.149 (fe)	65.454 (fo)	66.617 (fe)

Source: primary data-Questionnaire

TABLE 22: GRAND TOTAL OF INNOVATION AND DEVELOPMENT

Variables	ICICI $(fo-fe)^2/fe$	HDFC $(fo-fe)^2/fe$	AXIS $(fo-fe)^2/fe$	INDUSIND $(fo-fe)^2/fe$	Row Total $\sum(fo-fe)^2/fe$
F1	0.1538	0.0001	0.0001	0.1983	0.3524
F2	0.0811	0.0620	0.0712	0.1001	0.3145
F3	0.0235	0.0033	0.0103	1.53E-	0.0372
F4	0.0013	0.0981	0.0213	0.0203	0.1410
C.T.	0.2598	0.1636	0.1030	0.3188	0.8453(G.T.)

C.T.-Column Total, G.T.-Grand Total

Source: primary data-Questionnaire

TABLE 19: CHI SQUARE TEST- INNOVATION AND DEVELOPMENT

Level of Significance (5%)	Number of Rows	Number of Columns	Degrees of Freedom	p-Value	Calculated value	Tabulated value	Result
0.05	4	4	9	0.838	0.8453	16.919	Accepted

Source: primary data-Questionnaire

The table shows that, Chi-square test was used at 5 percent significant level. The result reveals that p-value is grater than Level of significance and the calculated value is less than the tabulated value. So, the null hypothesis is accepted. This reveals that there is no significant difference between Innovation and Development adopted by different private banks to the adoption of IT banking services.

CONCLUSION

The overall analysis leads to the conclusion that employees' of each bank perceive that there is no significant difference between the parameters like Relative advantage, Complexity, Potential risk, Strategic advantage by decision-making process and Innovation and development adopted by there respective banks (ICICI,HDFC,AXIS,INDUSIND) to improve the adoption of IT banking services among customers. As, all the banks are aggressively offering technology based offerings as a strategic weapon to remain competitive against other. The respondents feels that the timely Internet and computer training programs has improve their knowledge and skills in handling banks problems and help in brining awareness among customers about new product and services, resolving issues such as fears of privacy and security risk. Computerization in banks helps in saving time; increase efficiency and productivity of banks. The results from this study have also shown that there are other factors besides attitudinal ones that can help us to better understand the adoption of IT banking services. The findings of this study also hold important practical implications for banks that are currently offering IT banking services as well as banks that are planning to offer such services.

SUGGESTIONS

In addressing the problems that bank employee's face with the use of technological advances and to further improve the efficiency of the bank, the bank should:

1. Conduct Information security awareness program for bank employees in maintaining a secure banking institution such as Implementation and enforcement of a strong password policy, regularly updating passwords for banking systems, preferably on a monthly basis.
2. A security policy should be enforced that requires users to either log out or lock down their computer while they are away from their desk.
3. Bank employees should question any unfamiliar person in their area, or at least make sure someone in management is able to identify who is sitting at a desk.
4. The bank employees should be trained especially in dealing with customers. They should handle the queries of customers in a co-operative and supportive manner

In addressing the problems that bank employee's face when dealing with customers, the bank should:

1. Launch campaigns to direct awareness among customers. Issues such as fears of privacy and security risks together with relative advantages of using IT banking services could be highlighted to educate potential customers.
2. The banks should organize customer awareness and counseling programmes on a regular basis. It would be beneficial for both the banker as well as customer as it develops relationship banking.
3. Demonstrations via video presentations could be made at bank branches to showcase the user-friendliness of such services. Such initiatives will help customers to be more familiar with the bank and its IT banking service.
4. Internet banks should look for opportunities to lower the charges and transfer the cost savings to customers. Emphasizing the lower charges for online transactions as one of the key benefits should be a feature of promotional efforts.
5. Regular feedbacks should be taken by the customers about the working of the banks. Such feedback gives an insight of customers' expectation from banks and gives scope for further improvement.

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APPENDIX

Name:________________________Address:____Contact Number:_______________Email ID: ____________________

Q1. Please tick the option that matches your opinion:
i. Sex: Male Female
ii. Age: A.18 - 25 yrs B. 25 - 36 yrs C. 36 - 50 yrs D. 50 yrs +
iii. Job Title: A: Executives B. Manager C. Officer
iv. Year of experience: A. < 5yr B.5 – 10 yrs C. 10 – 15 yrs D. >15 yrs
v. Educational Qualification: A. Under Diploma B. Diploma C. Bachelor degree D. PG diploma E. P.G. F. Professional degree (M.B.A., C.A. etc.)
vi. Major on your final degree____
Bank: A. ICICI Bank B. HDFC Bank C. Axis Bank D. IndusInd Bank
vii. Place of work: ____
viii. Time duration of job training programs: A. 0-10 hour B. 11-20 hour C. 21-40 hour D. 41 hour and more
ix. Computer and internet training programs (hours) participated (on your own choice): A. 0-10 hour B. 11-20 hour C. 21-40 hour D. 41 hour and more
x. Estimated hours you work by computer, daily: 0-2 hrs B. 2-5 hrs C. 5-9 hrs D. 9 hrs & more

Q2.How many percent of your customers do you feel are aware of all the facilities available through your banking services. Please put a tick mark against any one of the responses.

1	ATM banking	0-20	21-40	41-60	61-80	81-100
2	Branch banking	0-20	21-40	41-60	61-80	81-100
3	Internet Banking	0-20	21-40	41-60	61-80	81-100
4	Mobile/Tele Banking	0-20	21-40	41-60	61-80	81-100

Q3. Please put a tick mark against any one of the responses/rating on (1 to 5) scale for Implementation of e-banking.

A. Relative Advantage

1	In my opinion, providing safety and convenience for banks customer is	Extremely Important 5	4	3	2	Extremely Unimportant 1
2	I think that removing time and location constraint for bank customer is	Extremely Important 5	4	3	2	Extremely Unimportant 1
3	To reduce costs of bank's daily performance is	Extremely Important 5	4	3	2	Extremely Unimportant 1
4	To save time of bank customers is	Extremely Important 5	4	3	2	Extremely Unimportant 1
5	To save time on daily responsibilities by e-banking is	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
6	To have higher opportunities in the bank for the employees is	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
7	To provide more sophisticated services with more profit for the banks is	Extremely Desirable 5	4	3	2	Extremely Undesirable 1

B. Complexity

1	To constantly monitor the integrity of their security systems is	Quite necessary 5	4	3	2	Quite Unnecessary 1
2	In my opinion, adequate and appropriate investments on hardware, software and banking application is	Completely Unimportant 5	4	3	2	Completely Unimportant 1
3	I think that making trust among bank employees on security of networks, hardware and bank application is	Quite necessary 5	4	3	2	Quite Unnecessary 1
4	I think that training programs and promotional plans to provide e-banking culture in the bank is	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
5	I think making trust among bank customers on their privacy is	Extremely Important 5	4	3	2	Extremely Unimportant 1

C. Potential Risk

1	Bank's employees posses enough knowledge of the e-banking technology to deal with potential risks	Quite necessary 5	4	3	2	Quite Unnecessary 1
2	Access to certain data should be minimized to keep data's integrity	Completely Unimportant5	4	3	2	Completely Unimportant 1
3	To understand the importance of information security	Quite necessary 5	4	3	2	Quite Unnecessary 1
4	Bank's employee's need expertise and training	Extremely Desirable 5	4	3	2	Extremely Undesirable 1

D. Strategic Advantage by decision making process

1	An external information network to identify requirements in Information Technology	Extremely Important 5	4	3	2	Extremely Unimportant 1
2	Use of specific selection criteria for the acquisition of new information systems	Extremely Important 5	4	3	2	Extremely Unimportant 1
3	Using financial tools in planning the acquisition of new information systems	Extremely Important 5	4	3	2	Extremely Unimportant 1
4	Knowing the Information Technology used by your competition	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
5	Knowing the impact that IT will have on the different functions of your bank	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
6	Disseminating Information on web page	Extremely Important 5	4	3	2	Extremely Unimportant 1
7	Ensuring that choice of Information Technology follows the evolution of your environment	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
8	Evaluating potential problems related with the implementation of a new system	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
9	Knowing the results of a financial feasibility study before the acquisition of	Extremely Desirable 5	4	3	2	Extremely Undesirable 1
10	Identification of possible sources of resistance to change before implementation	Extremely Desirable 5	4	3	2	Extremely Undesirable 1

E. Innovation and Development

1	Reduce your production costs	Extremely Important 5	4	3	2	Extremely Unimportant 1
2	Make substantial savings	Extremely Important 5	4	3	2	Extremely Unimportant 1
3	Improve firm's productivity	Extremely Important 5	4	3	2	Extremely Unimportant 1
4	Improve the quality of products or services	Extremely Important 5	4	3	2	Extremely Unimportant 1

KEY SKILLS IDENTIFICATION AND TRAINING NEED ANALYSIS @ SMALL AND MEDIUM RETAILERS IN DELHI AND NCR

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ABSTRACT

In today's date, the retail industry in India is in its booming phase and is expected to grow at a rate of 14% by 2013. With 100% FDI allowed in wholesale cash and carry trade and 51% in single brand retail, there is ample competition being provided to the unorganised retail formats by the organised retailers. With competition constantly knocking at their doorstep, retailers need to be able to withstand the competition and sustain in the long run. Identification of the relevant skill sets and attributes which positively impact the topline and bottomline and training on these skill sets can act as a key differentiator and empower the retailers and his employee force in providing efficient customer service, effectively managing supply chain, minimizing costs and being technologically proficient. The research study attempts to identify the skill sets and attributes imperative for efficient functioning of Small and Medium retailers and assess the training need analysis which can strengthen their operations and help them flourish. Being not so large in size, Small and Medium retailers cannot afford the luxury of spending gigantic amount of money and time on market research and training of their staff. At the same time, due to lack of proper training, they might not be able to withstand and might crumble in the face of the competition prevailing from big retail formats. The study also focuses on identifying training gaps and assessing the training requirement with regards to the attributes identified for small and medium enterprises in the organised and unorganised retail sector of Delhi and the National Capital Region. Primary data was collected from organised and unorganised small and medium retailers in Delhi and National Capital Region using a questionnaire. The sample size consisted consisted of 158 respondents. The data was first analysed with the help of a reliability test using cronbach alpha to determine the validity of attributes related to each skill set. Subsequently, factor analysis was used to determine the attributes and skill sets considered important by the Retailers for profitable functioning and thereby training gaps were studied. With a KMO value of 0.824 and chi square value of 865.632 factor analysis was considered appropriate. The attributes identified were successfully loaded on the six identified components – Customer skills, work and communication skills, managerial skills which is a combination of leader and business skills, analytical skills and people skills.The retailers identified the following skill sets as crucial to their business functioning: customer handling both internal and external ie employees and consumers; work (including technical skills) and communication skills; managerial skills; analytical skills and people skills. On further analysis, it was observed that attributes such as : finding alternate solutions to problems and challenges, consideration of customers viewpoint, importance of effectively satisfying customer needs, motivate colleagues in achieving of organizational goals, actively exchanging and deliberating on ideas, recognizing and rewarding of employees, aligning resources to meet business needs and, interpreting and analyzing financial data are laid more emphasis on from the perspective of the retailer and the retailer needs to constantly train and develop their employees in these areas.

KEYWORDS
Small and Medium retailers, skill sets, attributes, training need analysis.

INTRODUCTION

The retail industry in India is in its booming phase and is expected to grow at a rate of 14% by 2013. The first step towards allowing foreign direct investment in the retail industry was taken in 2006 and since then the country has received a cash inflow to the tune of Rs. 901.64 crore. Whilst 100% FDI is permitted in whole cash and carry trade and 51% in single brand retailing, the Government of India is actively toying with the idea of allowing FDI in multi brand retail too. National Accounts Data sourced from Central Statistical Organisation shows that the rate of growth of the private organised retail and private unorganised retail have virtually converged over the fours years ending 2008-09.

With competition constantly knocking at their doorstep, small and medium retailers in the organised and unorganised sectors need to be able to withstand the competition. Small and medium retailers taken for purpose of the research are those with a store size of more than 2000 sq ft and turnover of less than one crore.

It is imperative for the retailers to understand the skill sets essential for their efficient and smooth functioning and invest in strengthening of these skill sets. In this context, the different skill sets identified from the Literature Review are Communication skills, Work and Technical skills, People skills, Leader skills, Customer skills and Analytical skills. Training, if provided in these key areas can improve the performance level of individual employees and in turn will positively impact the overall performance of the store. The importance of various skill sets can be described as below:-

COMMUNICATION SKILLS

"The art of communication is the language of leadership." – James Hume. In the retail industry people involvement is very high and customer interface is maximum, hence communication plays a major role in its success. Communication can be within the organization, amongst the internal customers or with the external customers. Training in communication skills will positively impact the functioning of any retail store.

WORK AND TECHNICAL SKILLS

Working methodology of any organization is important for its success. Pre-defined goals and objectives set clarity within the employees and help them blend their personal development goals with the organisational goals. Removing the walls that separate people can foster teamwork in the organisation. It should be taken care that the managers and employees are clear both on performance objectives and how the performance will be measured. Retailers are progressively investing in technological tools and thus they need to constantly upgrade the technological skills of their employees. For example the retail stores who use ERP in their POS, need to upgrade the technical skills of their employees. Training in technical skills can reduce the wait time of customers, help maintain efficient inventory levels and ensure seamless supply chain management. Training of work skills help upgrade individual productivity and team performance levels.

PEOPLE SKILLS

"Be the change you want to bring about and model the behaviours you are trying to encourage." People are a critical factor to the success for any retail store. Customer interaction with a ready to help attitude and effective convincing skills are an asset. Training in people skills includes providing an insight on peer interaction, motivating sales staff towards achievement of their targets, generating team spirit amongst the employees and above all treating the customer as a king.

LEADERSHIP SKILLS

As defined by Warren G. Bennis, "Leadership is to have inspired, energised followers". As per David Antonioni, "Leadership is all about enabling followers to attain meaningful goals, especially goals that are bigger than any single individual could accomplish alone. The best and most mature leadership is about selfless service, not about gaining power and control over people." Leaders are not only born; they are also made by inculcating and polishing their leadership qualities. Employees should be empowered and held accountable for their decisions. This increases the sense of responsibility in them and helps make them feel engaged. Employee engagement is all about winning the minds and hearts of the employees so that they are ready to put in discretionary effort. Training of leadership skills to key employees helps improve the management of front line executives.

CUSTOMER SKILLS

As per Jimi Hendrix, "Customers are the king in any business. As a sales person, if you act as his best advisor, counsellor and mentor by discussing their needs in a friendly way, you can win the confidence and trust of the customers." Customer is the king and customer feedback and their involvement within the store increases the credibility of store and store employees. Training of front line executives and key personnel is important so that they can understand and gauge customer needs and requirements. Front line executives are the face of the retail store and the Brand that they represent.

BUSINESS SKILLS

As said by *Andrea Jung*, "You have to combine instinct with good business acumen. You just can't be creative, and you just can't be analytical." Successful businesses read its competitors and new players in time and strategize accordingly. Employees must understand the different techniques that are being used by their competitors. Training in business skills will help employees understand their competitor strategies. Employees should be empowered to innovate and generate ideas for improvement in their own functioning.

ANALYTICAL SKILLS

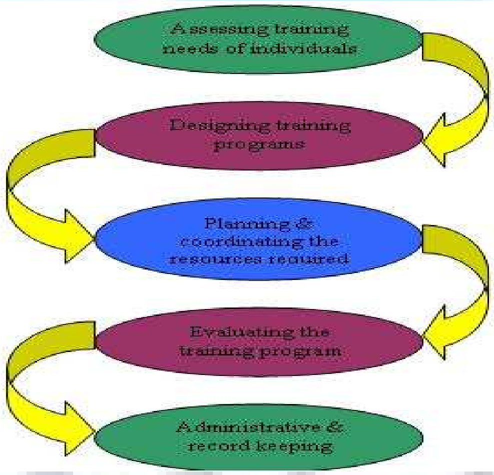
Numbers play key role in judging the performance of any retail outlet. Employees must understand the game of numbers and their importance. Training in analysis of sales and stock availability must be provided so that they are able to process and interpret data. Employees can also be a source of information about changes taking place in the business environment and about the existing scenario to their supervisors. This can help improve the performance level of the store.

TRAINING NEED ANALYSIS

Training of employees in the skill sets and attributes identified can help create the key differentiator for the retail outlets. Retailers through training need analysis can identify the skill sets in which training is to be imparted to their employee work force.

Training needs analysis is defined as a series of activities conducted to identify problem areas / issues in the workplace, and to determine whether training is an appropriate tool. The need analysis specifically defines the gap between the current and the desired individual and organizational performances.

Figure 1



RESEARCH OBJECTIVE

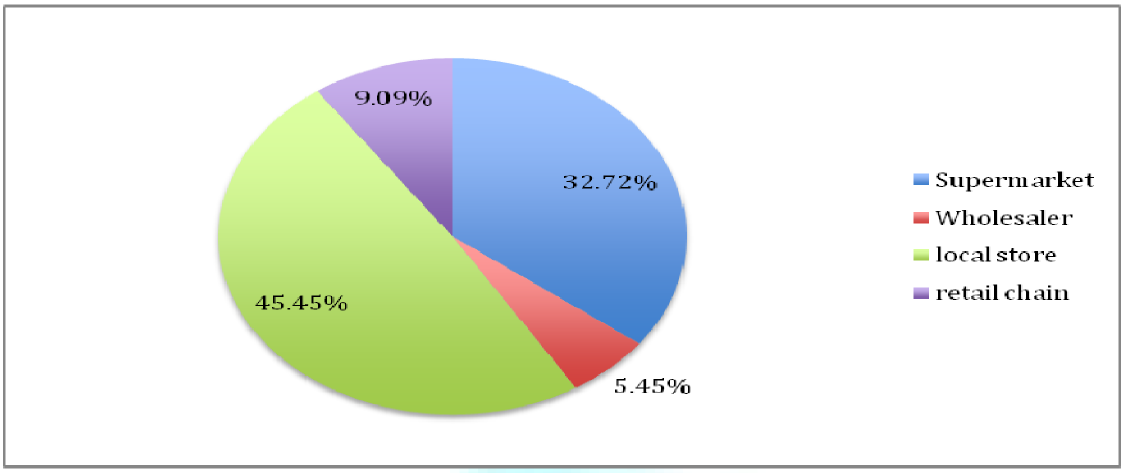
- To identify the attributes crucial to retailers.
- To map and analyse the skill sets important for effective functioning of small and medium retailers in the organised and unorganised sector in Delhi and NCR
- To conduct a training needs analysis and identify the training gaps in these retail outlets.

METHODOLOGY

Given the exploratory nature of the research, the design of the approach for investigation included self-completed questionnaires and possible secondary sources. A likert scale questionnaire was designed and a sample size of 158 small and medium retailers spread across Delhi and NCR was taken. The respondents were personally approached for purposes of filling the questionnaire. It included both the organised as well as unorganised retailers and consisted of supermarkets, wholesaler; local stores and retail chain outlets. The filling of the questionnaire by retailers through the interview process was conducted between May1, 2010 and June 30, 2010.

The graph below represents the distribution of different formats of store which were taken for our analysis.

FIGURE 2



The data gathered from the retailers was compiled and analysis was carried out to classify the skill sets imperative for a retailer and thereafter training gaps were identified. Thus, a need was felt to identify the attributes important for retailers and see if there was any correlation between these attributes and skill sets identified through the literature review. This also gave an insight to the areas in which the retailers and their employees needed upskilling and training.

On studying the sample size, it was seen that of the respondents who had filled out the questionnaire, 78.1% were in the range of employing 1-10 employees, 20.05% were employing 10-20 employees and 1.85% employed more than 20 employees. Of the total respondents 64.84% felt that training was crucial and were already providing training in some form or other whilst 35.17% responded to the contrary.

DATA ANALYSIS AND RESULTS

On analysing the data of 158 respondents of small and medium retailers in the organised and unorganised sectors of Delhi and NCR it was seen that:

LIKERT SCALE ANALYSIS

The reliability test was conducted to know the validity of attributes related to each skill set taken into account from the literature review. We have considered seven skill sets for training and need analysis of various retailers. These skill sets are –

1. Work Skills
2. Communication Skills
3. People Skills
4. Leader Skills
5. Customer Skills
6. Business Skills
7. Analytical Skills

CRONBACH'S ALPHA TEST

The Cronbach alpha test provides the alpha value for each skill through which the reliability of the skill sets was checked.

ANALYSIS OF RELIABILITY TEST

TABLE 1

Factor	Cronbach's Alpha
Work and Technical Skills	0.519
Communication Skills	0.572
People Skills	0.489
Leader Skills	0.612
Customer Skills	0.708
Business Skills	0.372
Analytical Skills	0.472

From the table it can be inferred that work and technical skills, communication skills, leader skills and customer skills are reliable as cronbach alpha value of these factors are greater than 0.5. However, for people skills, business skills and analytical skills cronbach alpha value is less than 0.5 which is not acceptable. So either these factors are not important to the retailers or the attributes related to these skills need to be reclassified.

Factor Analysis was subsequently conducted to determine the skill sets and respective attributes for each skill set considered important for seamless and effective functioning of the small and medium retailers.

FACTOR ANALYSIS

VALIDITY OF FACTOR ANALYSIS

A KMO value of 0.824 indicates that the correlation between the pairs of variables can be explained and factor analysis is appropriate. The Chi- Square value of 865.632 allows us to use factor analysis as an appropriate data reduction technique.

KMO AND BARTLETT'S TEST

TABLE 2

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.824
Bartlett's Test of Sphericity	Approx. Chi-Square	865.632
	df	231
	Sig.	.000

Eigenvalues represent the amount of variance associated with the factor. The results show that six components are able to explain 57.956% of variance. The scree plot being the plot of the eigenvalues against the number of factors in order of extraction shows that the numbers of factors are primarily six.

FACTORS EXTRACTED FROM TOTAL VARIANCE EXPLAINED TABLE

From the table it can be inferred that there are six components whose Initial Eigen values are greater than 1.So these six principal components or factors are extracted from the designed instrument

TABLE 3: ROTATED COMPONENT MATRIX(A)

	Component					
	1	2	3	4	5	6
Do you establish and document goals and objectives	-.145	.023	.009	.060	.692	-.156
Do you encourage collaboration of fellow employees to achieve results	.151	.561	.204	.062	.008	.043
Do you seek and utilize opportunities for continuous learning and self-development	.099	.403	.330	.515	.028	.124
Do you meet regularly with subordinates to discuss job performance	.444	.391	-.025	.081	.082	.460
Do you anticipate unexpected hurdles or obstacles to a plan or project	.215	.751	-.075	.080	-.010	.145
Do you accurately attend to/understand ideas which are exchanged	-.034	.479	.209	.083	.061	.463
Do you deliver influential presentations	.085	.723	.243	.005	-.074	.032
Do you display confidence in others abilities and talents	.091	.094	.171	.073	-.091	.795
Do you network with others across organizational boundaries	.101	.378	.162	-.524	.364	.023
Do you recognize and reward people for doing their best	.064	.277	.448	-.090	.517	-.023
Do you constructively receive criticism and suggestions from others	.494	.061	.260	.011	-.093	.385
Are you able to align manpower, design work, an allocate tasks to achieve goals	.200	.220	.643	.128	.071	.230
Do you empower others to achieve results and hold them accountable for actions	.401	.088	.636	.017	-.357	.091
Do you motivate /influence others in order to reach organizational goals	.456	.370	.181	.138	.065	.051
Do you consider customers point of view when making decisions	.636	.290	.220	.214	-.178	-.299
Are you effective in satisfying customer needs	.767	.138	-.132	.045	.038	.111
Do you pursue the best customer-focused responses that add value to the business	.726	.119	.332	-.046	.079	.091
Do you align resources to meet the business needs of the	.064	.177	.614	.143	.192	.069
Do you understand the costs, profits, markets, and added value of issues	.157	.163	.020	.780	.136	.009
Do you select the appropriate techniques for analysis	.269	-.205	.016	.111	.728	.163
Do you interpret financial data, reports, balance sheets, and cash flow analysis	.028	.069	.483	.577	.021	.170
Do you generate alternative solutions to problems and challenges?	.497	-.028	.229	.431	.157	.039

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

METHOD OF VARIABLE DIVISION

Variable which hold values >0.3 in rotated component matrix will be covered in the respective component.

INFERENCE

Various components and covered attributes are as follows –

COMPONENT 1 – ATTRIBUTES COVERED FROM INSTRUMENT

Do you meet regularly with subordinates to discuss job performance?
Do you constructively receive criticism and suggestions from others?
Do you empower others to achieve results and hold them accountable for actions?
Do you motivate /influence others in order to reach organizational goals?
Do you consider customers point of view when making decisions?
Are you effective in satisfying customer needs?
Do you pursue the best customer-focused responses that add value to the business?
Do you generate alternative solutions to problems and challenges?

Component 1 is referring to the Customer it could either be internal customers (Employees) or external customers (Consumers). In the retail business ultimate goal of any organization is to provide best service to its customer and employees always play an important role to satisfy the consumers. So the first component is inferred to be as **CUSTOMER HANDLING SKILLS.**

COMPONENT 2 – ATTRIBUTES COVERED FROM INSTRUMENT

Do you encourage collaboration of fellow employees to achieve results?
Do you seek and utilize opportunities for continuous learning and self-development?
Do you meet regularly with subordinates to discuss job performance?
Do you anticipate unexpected hurdles or obstacles to a plan or project?
Do you accurately attend to/understand ideas which are exchanged?
Do you deliver influential presentations?
Do you network with others across organizational boundaries?
Do you motivate /influence others in order to reach organizational goals?

Component 2 is referring to work skills (including technical skills) and Communication skills needed in a retail organization to make good coordination among teams and to get the final organizational goal. So the second component is inferred to be as **WORK & COMMUNICATION SKILLS.**

COMPONENT 3 – ATTRIBUTES COVERED FROM INSTRUMENT

Do you seek and utilize opportunities for continuous learning and self-development?
Do you recognize and reward people for doing their best?
Are you able to align manpower, design work, an allocate tasks to achieve goals?
Do you empower others to achieve results and hold them accountable for actions?
Do you pursue the best customer-focused responses that add value to the business?
Do you align resources to meet the business needs?
Do you interpret financial data, reports, balance sheets, and cash flow analysis?

Component 3 is referring to Managerial Skills which requires various report analysis, work allotment and customer response. Final outcome of this skill is to add value to the business.
So the third component is inferred to be as **MANAGERIAL SKILLS.**

COMPONENT 4 – ATTRIBUTES COVERED FROM INSTRUMENT

Do you seek and utilize opportunities for continuous learning and self-development?
Do you network with others across organizational boundaries?
Do you understand the costs, profits, markets, and added value of issues?
Do you interpret financial data, reports, balance sheets, and cash flow analysis?
Do you generate alternative solutions to problems and challenges?

Component 4 is referring to Analytical Skills which include various financial learning and continuous self improvement. So the fourth component is inferred to be as **ANALYTCAL SKILLS.**

COMPONENT 5 – ATTRIBUTES COVERED FROM INSTRUMENT

Do you establish and document goals and objectives ?
Do you network with others across organizational boundaries?
Do you recognize and reward people for doing their best?
Do you empower others to achieve results and hold them accountable for actions?
Do you select the appropriate techniques for analysis?

Component 5 is a combination of various skills which include work skill, people skill and analytical skill.

COMPONENT 6 – ATTRIBUTES COVERED FROM INSTRUMENT

Do you meet regularly with subordinates to discuss job performance?
Do you accurately attend to/understand ideas which are exchanged?
Do you display confidence in others abilities and talents?
Do you constructively receive criticism and suggestions from others?

Component 6 is referring to **People Skills.**

ANALYSIS OF RELIABILITY TEST FOR FACTORS EXTRACTED FROM FACTOR ANALYSIS-

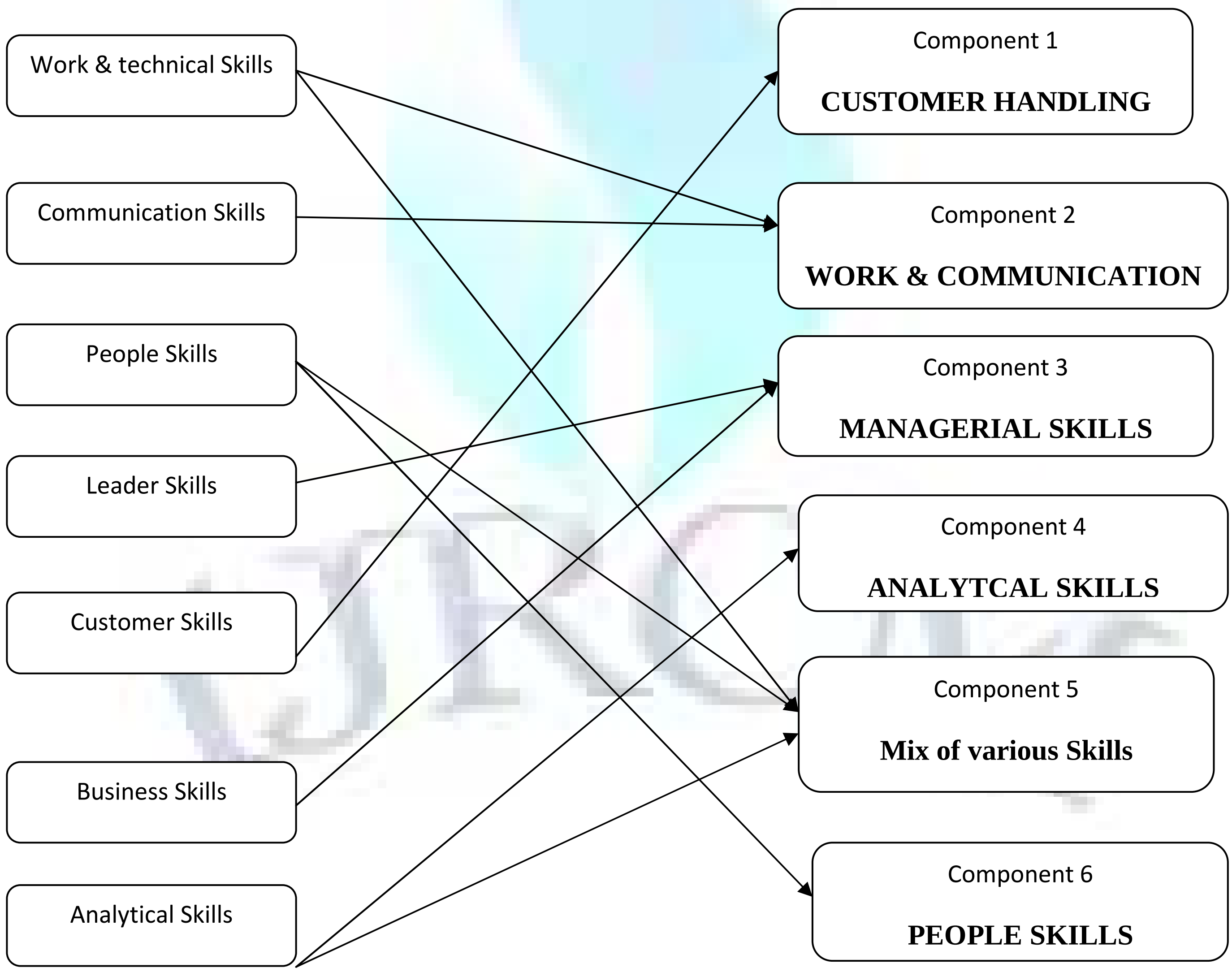
TABLE 4

Factor	Cronbach's Alpha
Component 1	0.789
Component 2	0.748
Component 3	0.737
Component 4	0.533
Component 5	0.438
Component 6	0.609

From the table it can be inferred that component 5 has value less than 0.5 which is not acceptable.

RELATION BETWEEN COMPONENTS EXTRACTED FROM FACTOR ANALYSIS AND FACTORS TAKEN FROM LITERATURE REVIEW

FIGURE 3



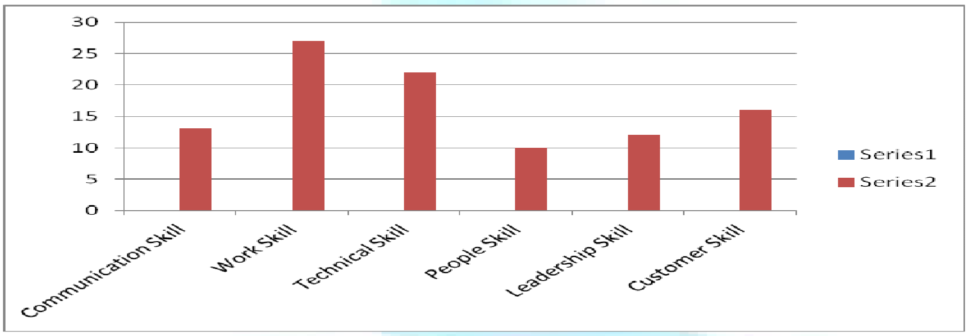
CROSSTABS - WHERE DO YOU LACK AGAINST YOUR COMPETITOR? * TYPES OF TRAINING PROCEDURE YOU WOULD LIKE TO FOLLOW

The in-depth analysis has helped us identify the skill sets and the attributes linked to the skill sets that the retailers find crucial to success of the operations of their business outlets. A small survey was designed to help identify the areas in which the retailers found themselves lacking against their competitors.

TABLE 5

		Total
Where do you lack against your competitor	Communication Skill	13
	Work Skill	27
	Technical Skill	22
	People Skill	10
	Leadership Skill	12
	Customer Skill	16
		100

FIGURE 4



A large chunk of 27 % retailers think that they lack in work skills while 22% found that training was required in technical skills. With regards to customer skills 16% were of the opinion that improving customer sensitivity and uptraining their employees on soft skills would be advantageous to them. 12% and 10% retailers felt that their employees needed to be trained on leadership skills and people skills.

REGRESSION ANALYSIS

Post the findings on the attributes that the small and medium retailers in the organised and unorganised sectors of Delhi and NCR felt that they needed an analysis was conducted to help identify the areas in which the training needed to emphasise on. The regression analysis helped us determine the attributes which are imperative and have a higher weightage in influencing the particular component / skill set. The attributes with Beta value greater than 0.1 are the attributes which the retailers need to especially focus on and uptrain their employees on for efficient and outstanding performance.

COMPONENT 1

TABLE 6 MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.406(a)	.165	.108	1.544	.165	2.892	8	117	.006

COEFFICIENTS(A)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.173	1.032		5.014	.000		
	Do you meet regularly with subordinates to discuss job performance	.040	.151	.026	.262	.794	.731	1.369
	Do you constructively receive criticism and suggestions from others	.046	.142	.032	.326	.745	.725	1.379
	Do you empower others to achieve results and hold them accountable for actions	.037	.160	.023	.233	.816	.719	1.391
	Do you motivate /influence others in order to reach organizational goals	-.149	.177	-.084	-.841	.402	.709	1.410
	Do you consider customers point of view when making decisions	-.573	.248	**-.243**	-2.308	.023	.644	1.553
	Are you effective in satisfying customer needs	.493	.190	**.275**	2.603	.010	.640	1.562
	Do you pursue the best customer-focused responses that add value to the business	.006	.158	.004	.039	.969	.574	1.743
	Do you generate alternative solutions to problems and challenges?	-.399	.125	**-.292**	-3.195	.002	.856	1.169

ATTRIBUTES WHICH ARE INFLUENCING COMPONENT 1

Do you consider customers point of view when making decisions?
Are you effective in satisfying customer needs?
Do you generate alternative solutions to problems and challenges?

COMPONENT 2

TABLE 7: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.393(a)	.155	.095	1.533	.155	2.605	8	114	.012

COEFFICIENTS(A)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.244	.951		3.411	.001		
	Do you encourage collaboration of fellow employees to achieve results	.092	.160	.055	.575	.567	.824	1.213
	Do you seek and utilize opportunities for continuous learning and self-development	.098	.148	.067	.662	.509	.734	1.363
	Do you meet regularly with subordinates to discuss job performance	.140	.157	.091	.895	.373	.711	1.406
	Do you anticipate unexpected hurdles or obstacles to a plan or project	.224	.129	**.180**	1.736	.085	.693	1.442
	Do you accurately attend to/understand ideas which are exchanged	.274	.148	**.179**	1.850	.067	.789	1.268
	Do you deliver influential presentations	-.436	.130	**-.345**	-3.349	.001	.699	1.430
	Do you network with others across organizational boundaries	.071	.117	.056	.609	.544	.877	1.140
	Do you motivate /influence others in order to reach organizational goals	-.484	.175	**-.274**	-2.761	.007	.753	1.328

ATTRIBUTES WHICH ARE INFLUENCING COMPONENT 2

Do you anticipate unexpected hurdles or obstacles to a plan or project?
Do you accurately attend to/understand ideas which are exchanged?
Do you deliver influential presentations?
Do you motivate /influence others in order to reach organizational goals?

COMPONENT 3

TABLE 8: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.198(a)	.039	-.019	1.640	.039	.679	7	116	.690

COEFFICIENTS(A)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.012	.946		3.184	.002		
	Do you seek and utilize opportunities for continuous learning and self-development	-.008	.161	-.006	-.051	.960	.704	1.421
	Do you recognize and reward people for doing their best	.178	.138	**.123**	1.290	.200	.905	1.105
	Are you able to align manpower, design work, an allocate tasks to achieve goals	.018	.216	.009	.085	.933	.673	1.485
	Do you empower others to achieve results and hold them accountable for actions	-.041	.171	-.025	-.241	.810	.740	1.351
	Do you pursue the best customer-focused responses that add value to the business	-.096	.151	-.067	-.638	.524	.753	1.329
	Do you align resources to meet the business needs	-.169	.150	**-.118**	-1.124	.263	.756	1.323
	Do you interpret financial data, reports, balance sheets, and cash flow analysis	.155	.136	**.119**	1.140	.257	.754	1.327

a Dependent Variable: Where do you lack against your competitor?

ATTRIBUTES WHICH ARE INFLUENCING COMPONENT 3

Do you recognize and reward people for doing their best?
Do you align resources to meet the business needs?
Do you interpret financial data, reports, balance sheets, and cash flow analysis

COMPONENT 4

TABLE 9: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.313(a)	.098	.060	1.572	.098	2.589	5	119	.029

COEFFICIENTS(A)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.505	.823		4.258	.000		
	Do you seek and utilize opportunities for continuous learning and self-development	.042	.145	.029	.292	.771	.794	1.259
	Do you network with others across organizational boundaries	.049	.111	.039	.445	.657	.988	1.012
	Do you understand the costs, profits, markets, and added value of issues	.037	.136	.027	.272	.786	.747	1.339
	Do you interpret financial data, reports, balance sheets, and cash flow analysis	.185	.132	**.144**	1.397	.165	.719	1.392
	Do you generate alternative solutions to problems and challenges?	-.421	.126	**-.311**	-3.352	.001	.880	1.137

a Dependent Variable: Where do you lack against your competitor?

ATTRIBUTES WHICH ARE INFLUENCING COMPONENT 4

Do you interpret financial data, reports, balance sheets, and cash flow analysis?
Do you generate alternative solutions to problems and challenges?

COMPONENT 5

TABLE 10: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.145(a)	.021	-.020	1.651	.021	.515	5	120	.765

COEFFICIENTS(A)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF	B	Std. Error
1	(Conmstant)	2.773	.898		3.087	.003		
	Do you establish and document goals and objectives	.010	.115	.008	.085	.933	.887	1.127
	Do you network with others across organizational boundaries	-.054	.122	-.043	-.444	.658	.863	1.158
	Do you recognize and reward people for doing their best	.180	.144	**.127**	1.251	.214	.794	1.259
	Do you empower others to achieve results and hold them accountable for actions	-.093	.149	-.058	-.627	.532	.949	1.054
	Do you select the appropriate techniques for analysis	.056	.122	.044	.460	.646	.877	1.140

a Dependent Variable: Where do you lack against your competitor?

ATTRIBUTES WHICH ARE INFLUENCING COMPONENT 5

Do you recognize and reward people for doing their best?

COMPONENT 6

TABLE 11: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.127(a)	.016	-.016	1.648	.016	.496	4	121	.739

COEFFICIENTS(A)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta	Tolerance	VIF	B	Std. Error
1	(Constant)	3.030	.948		3.197	.002		
	Do you meet regularly with subordinates to discuss job performance	-.043	.150	-.028	-.287	.774	.843	1.187
	Do you accurately attend to/understand ideas which are exchanged	.200	.151	**.127**	1.328	.187	.883	1.132
	Do you display confidence in others abilities and talents	-.147	.192	-.075	-.765	.446	.848	1.179
	Do you constructively receive criticism and suggestions from others	.024	.140	.016	.168	.867	.856	1.168

a Dependent Variable: Where do you lack against your competitor?

ATTRIBUTES WHICH ARE INFLUENCING COMPONENT 6

Do you accurately attend to/understand ideas which are exchanged?

Note – VIF (variation inflation factor) is used to measure the effect of multi collinearity on regression result. As value of VIF is b/w 1 and 2 in the above regression tables so there in no effect found on regression models.

From the regression analysis, it was observed that with regards to the Customer handling attribute, the retailer needs to focus on uptraining their employees on understanding the customer's viewpoint while making decisions and effectively satisfying customer needs. Customer is the king and understanding their mindset would help the retailer make apt decisions with reference to the kind of products that should be stocked in the outlet and the level of inventory to be maintained. The employee also needs to be keyed in to provide alternate solutions to challenges posed and be in a mindframe of providing quick and apt solutions to customers. This would help in generating a loyal customer base. To move the needle higher in the Work and Communication attribute, the training for the retailers need to lay special emphasis on being able to anticipate and find solutions to unexpected hurdles; understand and capitalise on ideas which are exchanged amongst employees and deliver influential presentations and motivate and align their employees personal goals with the organisational goals. Pre defined goals and objectives set clarity within the employees and help them blend their personal development goals with the organisational goals. Effective and seamless communication assists in crisp and clear flow of the vision, mission and objectives of the management to people at all levels. Communication aids the employees in convincing both the external and internal customers.

During training on the managerial and analytical attribute, emphasis should be laid on developing skills which aid employees on aligning of scarce resources to meet business needs which would boost the bottomline of the retailer. Training on interpretation of financial data, reports, balance sheet and cash flow analysis would keep the employees focussed on both the topline and bottomline. Training in analysis of sales and stock availability will help employees process and interpret data correctly. In addition recognizing and rewarding team members would keep them motivated and passionate about delivering on their goals. It would generate team spirit and help employees collaborate actively with one another in addition to being motivated and put in the discretionary effort toward achieving of organisational goals. Promotion of idea generation and innovation is an important constituent of People skills and organisations today lay special emphasis on the same. Ideas from the shop floor many a times result in cost cutting measures. Employees are the face of the organisation, they are able to understand and gauge the pulse of the customer and bring forth the voice of the customer. Thus it is imperative that exchange of ideas should be promoted and employees should b encouraged to voice their opinion. This would also have a positive impact on employee engagement.

CONCLUSION

The retailers identify the following skill sets as crucial to their business functioning: customer handling both internal and external ie employees and consumers; work (including technical skills) and communication skills; managerial skills; analytical skills and people skills. On further analysis, it was observed that attributes such as : finding alternate solutions to problems and challenges, consideration of customers viewpoint, importance of effectively satisfying customer needs, motivate colleagues in achieving of organizational goals, actively exchanging and deliberating on ideas, recognizing and rewarding of employees, aligning resources to meet business needs and, interpreting and analyzing financial data are laid more emphasis on from the perspective of the retailer and the retailer needs to constantly uptrain their employees in these areas. Customer is the king and improving customer handling and communication skills of employees helps in customer relationship management, wooing of the customer and generation of a loyal customer base. Work and analytical skills will assist in maintaining the right category of product, inventory management and loss prevention. Effective People skill of employees is reflected in a ready to help attitude. To top it leadership skills makes an employee responsible towards the organisational goals and makes them feel engaged. An engaged employee is one whose heart and mind is with the organisation and training on all these attributes only serves to make the employee engaged and loyal to the retailing outlet.

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LIMITATIONS OF THE STUDY

The sample was drawn from the small and medium enterprises in the organised and unorganised retail sector of Delhi and NCR. Thus, it might be possible that the sample might not be representative of the small and medium retailers of the country as a whole as business practices could vary across regions and cultural and state boundaries.

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STRATEGIES FOR MERGERS AND ACQUISITIONS – CASE STUDIES OF SELECTED BUSINESS HOUSES

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ABSTRACT
Due to globalization, liberalization, technological developments and the resultant intensely competitive business environment, cross border mergers and acquisitions have become very popular throughout the world in the recent times. M&As have historically been the favourite tool used by companies for restructuring of their business. The present study highlights the top foreign mergers and acquisitions in the year 2008 and 2009. Mergers and acquisitions are a significant activity for many organizations. Yet most mergers are not successful, primarily because the merger of two organizations is actually a merger of individuals and groups. Companies initiate M&As for numerous business objectives, ranging from achieving market entry to gaining proprietary technology. Companies that want to expand strive to acquire businesses that enhance their product portfolio and secure additional employees with specialized skills. But too many enter into M&A activity without recognizing the impact on the organization and the overall impact on the human element within the two merging companies. M&A activities that are improperly managed can result in lost revenue, customer dissatisfaction, and employee attrition. The present paper examines the issues and challenges confronted the mergers and acquisitions in recent times. The paper tries to present various strategies for mergers and acquisitions. It assesses the mergers and acquisitions undertaken by Indian companies in recent times.

KEYWORDS
Synergy, entrepreneur, acquisition, dynamic, merger.

INTRODUCTION
A recovery and stabilization of the stock markets, improvements in the economy, interest rates remaining low, improvements in financial controls, systems and corporate governance, cross-border deals on the rise, the "overhang" in the private equity industry, a willingness of sellers to be more realistic from a valuation perspective and a genuine focus on quality of transactions over quantity of transactions have fueled the up tick in M&A activity. Valuations on the seller's side have continued to become more realistic, creating many opportunities for buyers who have cash, (or access to cash) and the right internal and advisory teams to get deals done. From a small town trader running a family business, to the fearless and braving entrepreneur negotiating with multinational corporate powers to attract investment in his Indian business, or acquiring foreign competitors and raring to compete in the international arena, the image of corporate India has undergone a sea change in the past few decades. Surely the founding fathers of the TATA Group would not have dreamt about acquiring Ford, Jaguar Land Rover or cracking the deal with Corus. With the cross border merger and acquisitions activity in India growing at an exponential rate, a stage has been set for several smaller business enterprises to take the plunge and this seems quite beneficial for the Indian economy.

From the perception of business organizations, there is a whole host of different mergers. However, from an economist point of view i.e. based on the relationship between the two merging companies, mergers are classified into following:

- **Horizontal Merger**- Two companies that are in direct competition and share the same product lines and markets i.e. it results in the consolidation of firms that are direct rivals. E.g. Exxon and Mobil, Ford and Volvo, Volkswagen and Rolls Royce and Lamborghini.
- **Vertical Merger**- A customer and company or a supplier and company i.e. merger of firms that have actual or potential buyer-seller relationship eg. Ford-Bendix, Time Warner-TBS.
- **Conglomerate Merger**- Generally a merger between companies which do not have any common business areas or no common relationship of any kind. Consolidated firms may sell related products or share marketing and distribution channels or production processes. Such kind of merger may be broadly classified into following:
- **Product-Extension Merger** - Conglomerate mergers which involve companies selling different but related products in the same market or sell non-competing products and use same marketing channels of production process. E.g. Phillip Morris-Kraft, Pepsico- Pizza Hut, Proctor and Gamble and Clorox
- **Market-Extension Merger** - Conglomerate mergers wherein companies that sell the same products in different markets/ geographic markets. E.g. Morrison supermarkets and Safeway, Time Warner-TCI.
- **Pure Conglomerate Merger**- Two companies which merge have no obvious relationship of any kind. E.g. BankCorp of America- Hughes Electronics.

On a general analysis, it can be concluded that Horizontal mergers eliminate sellers and hence reshape the market structure i.e. they have direct impact on seller concentration whereas vertical and conglomerate mergers do not affect market structures e.g. the seller concentration directly. They do not have anticompetitive consequences.

REVIEW OF THE LITERATURE
Companies are often conducting a series of acquisitions. In early works in the M&A field there was a thinking that related acquisitions have a better chance of succeeding.

Relatedness, only by itself, does not create abnormal returns for acquiring companies. Synergy is the main factor that leads to success and abnormal returns. Barney (1988) in his research proves that:

"… synergistic cash flows stemming from relatedness will lead to abnormal returns for shareholders of bidding firms when those cash flows are private and unique, inimitable and unique, or unexpected."

However, later work has proved that there are different ways how companies can be close to each others and, as a consequence, there is a various degree of success based on that. According to Hayward's work (2002), the acquisitions that tend to be more successful are between the companies that are moderately similar in business characteristics and size to one another ("…not highly similar of dissimilar to one another"). If the prior acquisitions were with small losses - no high gains or high losses – the next acquisitions have a better chance of success. Lastly, the timing of the acquisitions should be such that acquisitions are "not too temporarily close to or distant from the focal acquisitions" (Hayward, 2002). According to the author's opinion there are larger benefits of acquisitions intervals between 6 and 12 months. If the prior acquisitions are smaller than the interval is shorter and when "involve less intensive integration demands"; and similarly, if the prior acquisitions are larger than the acquisition interval is longer and when involve more intensive integration demands. The author results are closer to evolutionary thinking that firms benefit from variety of experience, experimenting and temporal rhythms (Brown, Eisenhard, 1997).

Mergers create value for acquirers when the acquirer has some unique resources which can be then utilized within the target's company. The authors conclude (Capron, Pistre, 2002) that on other side "when the source of synergies reside with the target, the market is likely to allocate the full gains to the target because of competition between potential acquirers". Namely, bidding competition of competent bidders can raise price of the target's company in a way that would be beneficial for the target's shareholders but likely would lead to unsuccessful performance of the acquirer firm. These results, combined with the observation of continued growth in merger and acquisition activity, gives rise to the "M&A success paradox." If we assume that managers are rational, and that corporate governance structures serve as a check and balance on poorly conceived strategic actions, we would expect the level of M&A activity to taper off, which has not been observed. To date, scholars have been unable to unravel the M&A success paradox" (Cording, Christmann, & Bourgeois, 2002).

In his study Chatterjee (1992) was trying to see who is gaining from M&A. This study does not suggest that everyone is gaining in M&A, just that there is a net gain for the economy. Often the acquiring company is researched more. However, the target company is other part that is often under-researched. According to the author, the target company should accept takeover only if the synergistic component is dominant to restructuring component.

In the study - during the period of 11 months before the tender offer until 60 months after the tender offer - cumulative average of abnormal returns (CAAR) is measured. The CAAR, and similar indexes, are a financial measure of success in this and many similar studies. The study was based on sample of 577 tender offers between 1963 and1986. There are number of conclusions that can be drawn from the results of the research. The CAAR after 60 months (and for years 1, 2, 3, 4 before) is negative for unsuccessful bidders, about zero for successful bidder and for the rivals and the target company positive. Next, the restructured target companies have much higher positive CAAR than not restructured targets (positive but close to zero). Restructured targets have better CAAR than the rivals of restructured targets; rivals of not restructured targets have much better CAAR of not restructured targets (Chaterjee, 1992).

External factors influence merger activity in strong and consistent sense as has been proven in the research by Golbe and White (1988). Although this research is based on Industrial Organization theory view, and it is concentrated to industries, conclusions go beyond industries to whole economy. Overall, macroeconomic environments influence merger activity; in time of economic expansion the number of merger increases and during economic slowdown the number of merger decreases. Initial industry group conditions have major influence on number of mergers in the industry, as well as macroeconomics factors.

Companies, like people, tend to continue to do what have they done in past. The M&A researchers Amburgey and Miner (1992) studied effects of companies' momentum on merger activity. Amburgey and Miner based their conclusions on theories of organizational routines and cognitive decision making patters. They come up with a conclusion that there are three types of strategic momentum:

- Repetitive momentum (companies repeat previous strategic measures)
- Positional momentum (companies sustain or extend their existing strategic positions)
- Contextual momentum (general character of a company determine strategic action in a consistent way)

The research results support for reality of repetitive and contextual momentum; however, there is only partial support for positional momentum. A majority of studies report that the acquirers underperformed market after the merger. However, that issue s not completely resolved considering that there are number of different ways how the performance can be measured. In the finance arena, number of the researchers conducted after-merger performance studies including Agrawal and Jaffe. Agrawal and Jaffe (1992) conclude that the acquiring companies under-perform for about 10%, in average, during the five years after the merger. However, they conclude that this question is not totally resolved.

Certain studies that have measured post merger success have had a different approach. Instead of trying to look into historical market performance they looked into a survey as a methodology. They surveyed prime stakeholders of the merger activity in order to find out how well the merger satisfied objectives based on the pre-acquisitions objectives. In the Capron's survey-based work, he states: "…traditionally available financial data are too gross to permit differentiation between the types of fine-grained value-creating mechanisms.." (Capron, 1999: 993). One of the conclusions of the research is to keep top management team of the target's firm, no matter of whether it is a related or conglomerate merger. Although these types of the studies could suffer of undue subjectivity of respondents (usually the CEO's who were part of the merger) it provides a good complement & reality check of the previous financial performance oriented studies.

OBJECTIVES OF THE STUDY

- To examine the issues and challenges confronted the mergers and acquisitions;
- To find out the strategies for mergers and acquisitions
- To assess the mergers and acquisitions undertaken by Indian companies
- To highlight the top foreign mergers and acquisitions in the year 2008 and 2009.

CHARACTERISTICS OF MERGER AND ACQUISITION ACTIVITY

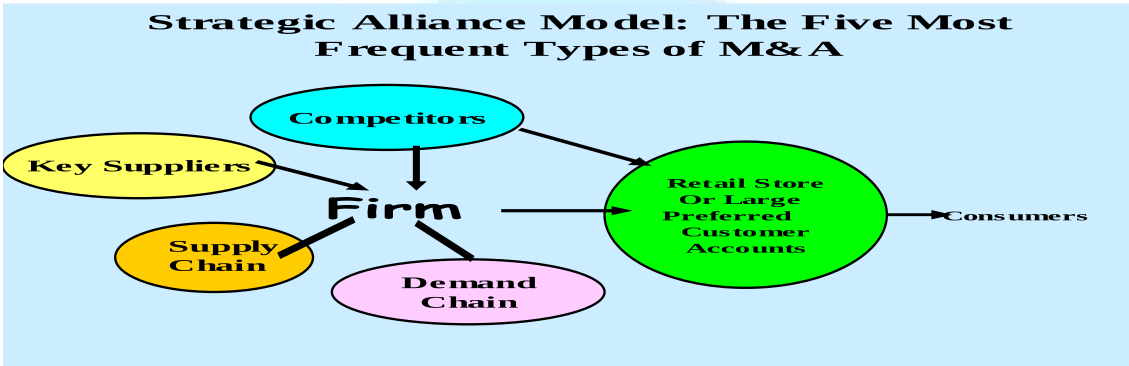
Period	Major Characteristics
1895-1904	Driven by economic expansion, Development of capital markets
	Characterized by horizontal M & As
1922-1929	60 % occurred in fragmented markets (chemicals, food processing , mining)
	Driven by growth in transportation and merchandising, as well as by communications developments
1940-1947	Characterized by vertical integration
	Driven by evasion of price and quota controls
1960s	Characterized by conglomerate M & As
	Driven by aerospace industry
	Some firms merged to play the earnings per share "growth game"
1980s	Characterized by leveraged buyouts and hostile takeovers
1990s	Many international M & As
	Strategic motives were advanced
1999-2001	High technology/internet M & As
	Many stock financed takeovers, fuelled by inflated stock prices
	Many were unsuccessful and/or fell through as the Internet "bubble" burst
2005-to till date	Resource based/international M & A activity
	Fuelled by strong industry fundamentals, low financing costs, strong economic conditions

Source: Adapted in part from Weston, JF., Wang, F., Chung, S., and Hoag, S. Mergers, restructuring and Corporate Control. Toronto: Prentice Hall Canada, Inc 1990

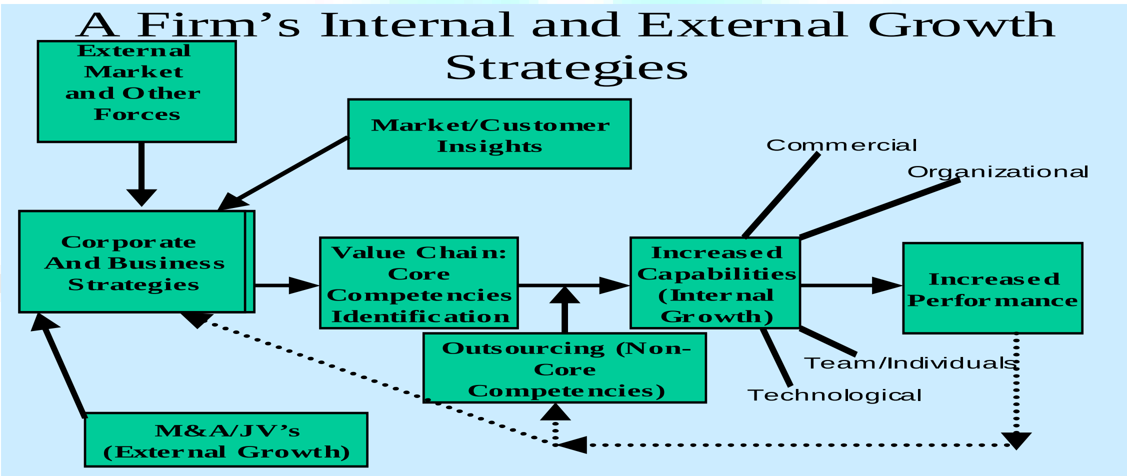
STRATEGIC ADVANTAGES OF MERGER AND ACQUISITIONS FROM THE PERSPECTIVE OF A BUYER

Although the reasons for considering growth by acquisition will vary from industry to industry and from company to company, the most common strategic advantages from the perspective of a buyer include:

- **Buyer can achieve operating and financial synergies and economics of scale** with respect to production and manufacturing, research and development, management or marketing, and distribution.
- **Buyer Company may be able to develop the full potential of the target company's proprietary products or services** that are suffering from lack of capital to move projects forward.
- **The target company may stand to lose its management team** due to the lack of career growth potential unless it is acquired by a business that offers higher salaries, increased employee benefits and greater opportunity for advancement. Conversely, it may have a surplus of strong managers who are likely to leave unless it acquires other businesses that it can operate and develop.
- **The buyer company may want to stabilize its earnings stream** and mitigate its risk of business failure by diversifying your products and services through acquisition rather than internal development.
- **Company may need to deploy excess cash into a tax-efficient project** (because both distribution of dividends and stock redemptions are generally taxable events to its shareholders).
- **Company may want to achieve certain production and distribution economies of scale** through vertical integration, which would involve the acquisition of a key supplier or customer.
- **The target company's management team may be ready for retirement** or a key manager may have recently died (leaving the business with residual assets that can be utilized by acquiring company).
- **The buyer company may wish to increase its market power by acquiring competitors**, which may be a less costly alternative for growth than internal expansion.
- **The buyer company may be weak in certain key business areas**, such as research and development or marketing, and it may be more efficient to fill these gaps through an acquisition rather than to build these departments internally.
- **The company may have superior products and services but lack the consumer loyalty or protected trademarks** needed to gain recognition in the marketplace. The acquisition of an older, more established firm can be a more efficient method of developing goodwill.
- **The company may want to penetrate new geographic markets** and conclude that it is cheaper to acquire firms already doing business in those areas than to establish market diversification from scratch.
- **The company may provide the technical expertise or capital** the target company needs to grow to the next stage in its development.



A FIRM'S INTERNAL AND EXTERNAL GROWTH STRATEGIES



Source: Barry A. Macy, Successful Strategic Change, Berrett-Koehler Publishers, San Francisco, CA.

- **Get staff involved:** Make sure to solicit the ideas and feedback of the employees. The more employees feel a part of the merger or acquisition, the more supportive they will be of what lies ahead. For instance, if the two companies involved use different enterprise resource planning (ERP) systems, a leader might ask for his staff's thoughts on the pros and cons of each one. He may be surprised at how open to change employees are if they participate in the decision-making process.
- **Give a realistic assessment:** Help to build support for the change by pointing out benefits that are expected to accompany it. If the firm is being acquired by a larger organization, for example, there may be greater advancement opportunities for its employees. Yet be careful not to go overboard trying to convince employees the merger or acquisition is good for everyone. With most business restructuring, there will be a mix of positives and negatives. Even if the news is generally good for your team, there may still be some uneasy feelings about what's happening. If staff members feel trepidation about change,

their resistance may increase if leader is overly upbeat. It's better to be honest about obstacles and then talk about how the company-and specifically the leader's department—plans to overcome them. For instance, if layoffs are planned, discuss the services that will be provided to those losing their jobs as well as what remaining employees can expect in the coming months.

- **Communicate regularly:** Early communication is critical in any merger or acquisition situation. If employees receive initial word of the change without immediate follow-up information, the rumor mill will undoubtedly start turning. People may suspect that management is trying to hide bad news such as layoffs by not revealing further details. This can damage morale and lead to turnover. When the leaders do have news to report, be honest, direct, and inform people immediately. Group meetings are best for matters that affect everyone on its team, such as the need for employees to relocate to the new company's location.
- **Stay focused:** The merger or acquisition will certainly command much attention in the leader's group, but he has to make sure that core responsibilities aren't overshadowed by the upcoming event. Be sensitive to the situation, but stress the importance of meeting everyday demands. Make an active effort to monitor workloads since they may change quickly once the merger or acquisition is announced.

EFFECTS OF MERGERS AND ACQUISITIONS

Mergers and acquisitions have long lasting effects on various interest groups. The effects of mergers and acquisitions on different bodies are mentioned herein below:

1. **Impact of Mergers And Acquisitions on workers or employees:** Aftermath of mergers and acquisitions impact the employees or the workers the most. It is a well known fact that whenever there is a merger or an acquisition, there are bound to be lay offs. In the event when a new resulting company is efficient business wise, it would require less number of people to perform the same task. Under such circumstances, the company would attempt to downsize the labor force. If the employees who have been laid off possess sufficient skills, they may in fact benefit from the lay off and move on for greener pastures. But it is usually seen that the employees those who are laid off would not have played a significant role under the new organizational set up. This accounts for their removal from the new organization set up. These workers in turn would look for re-employment and may have to be satisfied with a much lesser pay package than the previous one. Even though this may not lead to drastic unemployment levels, nevertheless, the workers will have to compromise for the same. If not drastically, the mild undulations created in the local economy cannot be ignored fully.
2. **Impact of mergers and acquisitions on top level management:** Impact of mergers and acquisitions on top level management may actually involve a "clash of the egos". There might be variations in the cultures of the two organizations. Under the new set up the manager may be asked to implement such policies or strategies, which may not be quite approved by him. When such a situation arises, the main focus of the organization gets diverted and executives become busy either settling matters among themselves or moving on. If however, the manager is well equipped with a degree or has sufficient qualification, the migration to another company may not be troublesome at all.
3. **Impact of mergers and acquisitions on shareholders:** We can further categorize the shareholders into two parts:
   - The Shareholders of the acquiring firm
   - The shareholders of the target firm.

(a) Shareholders of the acquired firm: The shareholders of the acquired company benefit the most. The reason being, it is seen in majority of the cases that the acquiring company usually pays a little excess than it what should. Unless a man lives in a house he has recently bought, he will not be able to know its drawbacks. So that the shareholders forgo their shares, the company has to offer an amount more then the actual price, which is prevailing in the market. Buying a company at a higher price can actually prove to be beneficial for the local economy.

(b) Shareholders of the acquiring firm: They are most affected. If we measure the benefits enjoyed by the shareholders of the acquired company in degrees, the degree to which they were benefited, by the same degree, these shareholders are harmed. This can be attributed to debt load, which accompanies an acquisition.

BENEFITS OF MERGERS AND ACQUISITIONS

Benefits of Mergers and Acquisitions are manifold. Mergers and Acquisitions can generate cost efficiency through economies of scale, can enhance the revenue through gain in market share and can even generate tax gains. Benefits of Mergers and Acquisitions are the main reasons for which the companies enter into these deals. The main benefits of Mergers and Acquisitions are the following:

- **Greater value generation:** Companies go for Mergers and Acquisition from the idea that, the joint company will be able to generate more value than the separate firms. When a company buys out another, it expects that the newly generated shareholder value will be higher than the value of the sum of the shares of the two separate companies.
- **Beneficial company is weathering through the tough times**: Mergers and Acquisitions can prove to be really beneficial to the companies when they are weathering through the tough times. If the company which is suffering from various problems in the market and is not able to overcome the difficulties, it can go for an acquisition deal. If a company, which has a strong market presence, buys out the weak firm, then a more competitive and cost efficient company can be generated. Here, the target company benefits as it gets out of the difficult situation and after being acquired by the large firm, the joint company accumulates larger market share. This is because of these benefits that the small and less powerful firms agree to be acquired by the large firms.
- **Gaining cost efficiency:** When two companies come together by merger or acquisition, the joint company benefits in terms of cost efficiency. A merger or acquisition is able to create economies of scale which in turn generates cost efficiency. As the two firms form a new and bigger company, the production is done on a much larger scale and when the output production increases, there are strong chances that the cost of production per unit of output gets reduced.
- **Mergers and Acquisitions are also beneficial**

o when a firm wants to enter a new market
o when a firm wants to introduce new products through research and development
o when a forms wants achieve administrative benefits
o Mergers and Acquisitions may generate tax gains, can increase revenue and can reduce the cost of capital.

FAILURES OF MERGERS AND ACQUISITIONS

Mergers and acquisitions may seem to be beneficial, resulting in the amalgamation of two conglomerates. They have been found to lead to cost cuts and increased revenues. However, merger and acquisition failures are not uncommon. These failures may harm the companies, tarnish their credibility in the market, and ruin the confidence of their shareholders.

Studies reveal that approximately 40% to 80% of mergers and acquisitions prove to be disappointing. The reason is that their value on the stock market deteriorates. The intentions and motivations for effecting mergers and acquisitions must be evaluated for the process to be a success. It is believed that when two companies merge the combined output will increase the productivity of the merged companies. This is referred to as "economies of scale." However, this increase in productivity does not always materialize.

There are several reasons merger or acquisition failures. Some of the prominent causes are summarized below:

- If a merger or acquisition is planned depending on the (bullish) conditions prevailing in the stock market, it may be risky.
- There are times when a merger or an acquisition may be effected for the purpose of "seeking glory', rather than viewing it as a corporate strategy to fulfill the needs of the company. Regardless of the organizational goal, these top level executives are more interested in satisfying their "executive ego".

- In addition to the above, failure may also occur if a merger takes place as a defensive measure to neutralize the adverse effects of globalization and a dynamic corporate environment.
- Failures may result if the two unifying companies embrace different "corporate cultures".

It would not be correct to say that all mergers and acquisitions fail. There are many examples of mergers that have boosted the performance of a company and addressed the well-being of its shareholders. The primary issue to focus on is how realistic the goals of the prospective merger are.

STEP BY STEP PROCEDURE FOR MERGERS AND ACQUISITIONS

The procedure for mergers and acquisitions is mentioned herein below:

- **Determine Business Plan Drivers:** Merger and acquisition strategies are deduced from the strategic business plan of the organization. So, in merger and acquisition strategies, find out the way to accelerate your strategic business plan through the M&A. Then transform the strategic business plan of the organization into a set of drivers, which merger and acquisition strategies would address. While chalking out strategies, organization need to consider the points like the markets of its intended business, the market share that the organization are eyeing for in each market, the products and technologies that it would require, the geographic locations where it would operate its business in, the skills and resources that it would require, the financial targets, and the risk amount etc.
- **Determine Acquisition Financing Constraints:** Now, the organization is to find out if there are any financial constraints for supporting the acquisition. Funds for acquisitions may come through various ways like cash, debt, public and private equities, minority investments, earn outs etc. The organization need to consider a few facts like the availability of untapped credit facilities, surplus cash, or untapped equity, the amount of new equity and new debt that the organization can raise etc. It also needs to calculate the amount of returns that it must achieve.
- **Develop Acquisition Candidate List:** Now the acquirer organization have to identify the specific companies (private and public) that it is eyeing for acquisition. It can identify those by market research, public stock research, referrals from board members, investment bankers, investors and attorneys, and even recommendations from its employees. It also needs to develop summary profile for every company.
- **Build Preliminary Valuation Models:** This stage is to calculate the initial estimated acquisition cost, the estimated returns etc. Many organizations have their own formats for presenting preliminary valuation.
- **Rate/Rank Acquisition Candidates:** Rate or rank the acquisition candidates according to their impact on business and feasibility of closing the deal. This process will help the organization in understanding the relative impacts of the acquisitions.
- **Review and Approve the Strategy:** This is the time to review and approve the merger and acquisition strategies. The organization needs to find out whether all the critical stakeholders like board members, investors etc. agree with it or not. If everyone gives their nods on the strategies, the organization can go ahead with the merger or acquisition.

MARKET ENGINEERING CAN MAKE MERGERS & ACQUISITIONS MORE SUCCESSFUL - DIFFERENT WAYS

The different ways by which market engineering can make mergers and acquisitions more successful are mentioned herein below:

- Improving negotiation and price by knowing the company's exact market position;
- Providing credibility and insurance to investors and bankers;
- Selecting the optimal acquisition candidate for your company;
- Identifying market opportunities that an acquisition strategy can exploit;
- Measuring customer attitudes on company's products to indicate their image in market;
- Providing customer demographic data that gives insight into future market potential and growth for targeted company;
- Identifying opportunities for growth in market segmentation analysis;
- Providing competitive benchmarking measurements to identify areas for fast improvement in company;
- Measuring market and technical trends to forecast future growth potential of company's technology;
- Identifying key trends in the market, the company's customers, and relative position with competitors to pinpoint future problems and opportunities.

SWOT ANALYSIS FOR MERGERS AND ACQUISITIONS

If managers have done their work properly before the acquisition, they will have proved that they have sound, logical reasons for the purchase - which is a key principle in itself. Then try a SWOT analysis:

- What new Strengths will the buy bring to the company?
- How will management capitalize on those strengths?
- What are the Weaknesses of (a) the target and (b) the combined businesses?
- How will management eliminate the weaknesses?
- What Opportunities are available to the combined businesses that are not already available to the buyer?
- How will management seize those Opportunities, if any?
- What Threats will the buy avert?
- What new Threats will be created by the acquisition?
- How does management propose to overcome the Threats?

STRATEGIES FOR MANAGING CHANGE ARISING DUE TO MERGERS AND ACQUISITIONS

The merger and acquisition strategies may differ from company to company and also depend a lot on the policy of the respective organization. However, merger and acquisition strategies have got some distinct process, based on which, the strategies are devised.

- **Analyze Company Cultures:** During the courting phase, companies considering consolidation must maintain objectivity about the impending business deal. Companies should frankly discuss their respective business cultures to determine whether an appropriate fit is even possible. For example, perhaps Company A has a loose management style and delegates a great amount of responsibility to regional managers. Company B, on the other hand, has a rigid, conservative approach with all decisions coming from the top and filtering down through an elaborate approval process. Distinct differences like this must be acknowledged, accepted and dealt with directly. In this instance, the two companies must compromise up front about how much authority they will delegate to their regional management teams. An open and honest assessment of the differences in business cultures ensures there are no surprises after the two companies begin working together.
- **Make People a Priority:** The merging of two large companies is a huge undertaking, involving a great deal of legal and financial wrangling. Unfortunately, high-power meetings and paperwork often receive the greatest allocation of resources, while the "people" aspects are neglected. To successfully merge two companies, executives need to allocate sufficient communication resources for managing employee concerns. Industry consolidation typically raises fears about job loss, plant relocation or the reassignment of responsibilities. Managers must be honest with their people about what to expect. Management must also involve their staff in as much decision-making as possible. Although mergers and acquisitions happen quickly, the need for speed is not an excuse for making decisions about people without their involvement. Additionally, all players must be tolerant of the new team's differing personalities and management styles to help build relationships with the new company.

- **Beware the Honeymoon Syndrome:** Spirits are usually high at the onset of the merger or acquisition. Stock prices skyrocket, press is favorable and expectations are high for growth. This is the "honeymoon period" when companies are preoccupied with the bright side of the new venture. This can also be a very dangerous time, as companies are blind to the weaknesses and risks inherent in the deal. Often it's wise to bring in an objective third party as the planning begins to prevent 'infatuation' and ensure that management is realistically considering the problematic aspects of the merger or acquisition. It's also critical to gauge whether management is willing to allocate enough "bandwidth" to tackle both the acquisition and current operations. It is important to perform "reverse qualification" so companies use the same set of analytical tools on themselves that they have already used on the target company.
- **The Bottom Line:** Companies typically amass an army of financial advisors and lawyers but lack the expertise to handle the people part of M & A. Frequently, the smartest strategy is to bring in a trusted advisor who is skilled in handling the human aspects of mergers and acquisitions. After all, companies are made up of people and people determine performance. Putting people first is an investment in success.
- **Mergers start at the top**: To integrate companies following a merger, arguably the most important challenges involve the top of the organization—appointing the right top team, structuring it appropriately, defining its agenda, and building the trust that enables its members to work well together. Executives who fail to overcome these challenges are responsible for the ego clashes and politics that are often the root cause of spectacular failed mergers.

TRENDS IN MERGERS AND ACQUISITIONS

The trends in mergers and acquisitions can be highlighted herein below:

- Merger and acquisition trends give a clear idea about the movements of the market. Not only the product market or labour market, but also the money market gets influenced by these merger and acquisition trends.
- Merger and acquisition trends are important to study in order to judge the market movements of any particular economy.
- Not only the markets of particular countries, but also the World Market gets influenced by the significant mergers and acquisitions. So, one can easily understand how determining the merger and acquisition trends are in the overall development growth of any economy.
- In the years 2006 and 2007, the world experienced numerous mergers and acquisitions. All over the world, in the developed and developing nations, record number of merger and acquisition deals took place.
- Most of these merger and acquisitions actually led to decrease in number of public undertakings and increase in number of private enterprises. This happened as many public organizations all over the world, were either merged into or acquired by big private institutions.
- The reason of this particular merger and acquisition trend was the emergence and rapid growth of Private Equity Funds. Moreover, the regulatory environment of the publicly owned companies and the urge to attain growth of short term earnings were also behind the specific trend of mergers and acquisitions.
- Mergers and acquisitions resulting into privatization of the public undertakings took place not only in Europe, but also in North America, China and even in country like Brazil. In Europe this type of mergers and acquisitions took place significantly, as the market for public-to-private investment was quite strong in Europe. In China this type of mergers and acquisitions were first approved in 2006.
- According to experts this trend of going private through mergers and acquisitions will continue in the future. As the Private Equity Funds are facing the target of deploying the raised capital, acquisition of large public organizations is definitely in the pipeline.

CORPORATE MERGERS AND ACQUISITIONS

Corporate mergers and acquisitions are something very crucial for any country's economy. This is so because the corporate mergers and acquisitions can result in significant restructuring of the industries and can contribute to rapid growth of industries by generating economies of scale.

Corporate Mergers and Acquisitions influence the economy as a whole as through restructuring of industries. These Corporate mergers and acquisitions increases competition in the market and raise the vulnerability of the stockholders as the value of stocks experience ups and downs after a merger or acquisition.

Although the concept of merger and acquisition are different from one another, both can be used as engines of growth. Corporate mergers and acquisitions are instruments which can instantly result in expansion of production capacity.

Corporate mergers and acquisitions result in Skill Transfer and other Sharing Activities. After a company is merged with another or is acquired by a bigger one, the former gains in terms of comparative advantage. After a Corporate merger or acquisition, production takes place on a large scale. This large scale production generates economies of scale. So, in a way corporate mergers and acquisitions help companies to attain rapid growth. A merger or acquisition not only benefits the big firm but also benefits the target firm. The target firm can get such a high bid that it exceeds the real market value of the target company. This can be possible in two cases. Firstly, when acquiring of the target firm is really crucial for the firm who wants to acquire it and when the target firm is more valuable to the acquiring firm than to any other bidder firm. Secondly, when the bidder firm is confident of acquiring comparative advantage in a short span through the acquisition of the target firm.

In case of a Corporate merger or acquisition, the distribution of value between the shareholders of the target company and the bidder company depends significantly on the relative bargaining power of the bidder firm and the target firm.

MERGERS AND ACQUISITIONS IN INDIA: THE LATEST TRENDS

Till recent past, the incidence of Indian entrepreneurs acquiring foreign enterprises was not so common. The situation has undergone a sea change in the last couple of years. Acquisition of foreign companies by the Indian businesses has been the latest trend in the Indian corporate sector.

There are different factors that played their parts in facilitating the mergers and acquisitions in India. Dynamic attitudes of the Indian entrepreneurs, additional liquidity in the corporate sector, favorable government policies, dynamic government policies, corporate investments in industry, economic stability, "ready to experiment" attitude of Indian industrialists and buoyancy in economy are the key factors behind the changing trends of mergers and acquisitions in India.

Recently the Indian companies have undertaken some important acquisitions. Some of those are as follows:

1. Creating history, one of India's top corporate entities, Tata Motors, in March 2008 acquired luxury auto brands -- Jaguar and Land Rover -- from Ford Motor for $2.3 billion, stamping their authority as a takeover tycoon.
2. Beating compatriot Mahindra and Mahindra for the prestigious brands, just a year after acquiring steel giant Corus for $12.1 billion, the Tatas signed the deal with Ford, which on its part chipped in with $600 million towards JLR's pension plan. Tata Motors' buyout of JLR is India's 8th-largest in history.
3. Aluminium and copper major Hindalco Industries, the Kumar Mangalam Birla-led Aditya Birla Group flagship acquired in February 2007 Canada based Novelis. The deal involved transaction of $5,982 million. Till date, it is India's third-largest M&A deal. The acquisition would make Hindalco the global leader in aluminium rolled products and one of the largest aluminium producers in Asia. With post-acquisition combined revenues in excess of $10 billion, Hindalco would enter the Fortune-500 listing of world's largest companies by sales revenues
4. India's financial industry saw the merging of two prominent banks - HDFC Bank and Centurion Bank of Punjab (CBoP). The deal took place in February 2008 for $2.4 billion. CBoP shareholders got one share of HDFC Bank for every 29 shares held by them. Post-acquisition, HDFC Bank became the second-largest private sector bank in India. The acquisition was also India's 7th largest ever.
5. On January 30, 2007, Tata Steel's done a mega takeover of European steel major Corus for $12.2 billion. The biggest ever deal for an Indian company so far. The deal is the largest Indian takeover of a foreign company till date and made Tata Steel the world's fifth-largest steel group This is the first big thing which marked the arrival of India Inc on the global stage.

6. Tata Steel’s (Tisco) acquisition of the Singapore-based NatSteel in August 2004 topped the charts for the group during the year. Natsteel was purchased for a whopping Rs 1,313 crore.
7. Dr. Reddy's Labs acquired Betapharm, Germany through a deal worth of $597 million.
8. Ranbaxy Labs acquired Terapia SA., Romania the deal amounted to $324 million.
9. Vodafone purchased administering interest of 67% owned by Hutch-Essar for a total worth of $11.1 billion on February 11, 2007. This is the second-largest M&A deal ever involving an Indian company
10. Wind energy premier Suzlon Energy acquired Hansen Group, Belgium through a deal of $565 million.
11. Wind energy premier Suzlon Energy in May 2007 acquired the German wind turbine manufacturer REpower for $1.7 billion. The deal now ranks as the country's 10th largest corporate takeover. REpower is one of Germany's leading manufacturers of wind turbines, with a 10-per cent share of the overall market. Suzlon is now the largest wind turbine maker in Asia and the fifth largest in the world.
12. The Oil and Natural Gas Corporation purchased Imperial Energy Plc in January 2009. The deal amounted to $2.8 billion and was considered as one of the biggest takeovers after 96.8% of London based companies' shareholders acknowledged the buyout proposal.
13. The acquisition of Daewoo Electronics Corp., Korea by Videocon involved transaction of $729 million.
14. The acquisition of Thomson SA of France by Videocon involved transaction of $290 million.
15. Marking the largest-ever deal in the Indian pharma industry, Japanese drug firm Daiichi Sankyo in June 2008 acquired the majority stake of more than 50 per cent in domestic major Ranbaxy for over Rs 15,000 crore ($4.5 billion). The deal created the 15th biggest drugmaker globally, and is India's 4th largest M&A deal to date
16. Anil Agarwal-led Sterlite Industries Ltd’s $1.8 billion Asarco LLC buyout deal is the ninth biggest-ever merger and acquisitions deal involving an Indian firm, and the largest so far in 2009. This is despite the deal size falling by almost $1 billion, from a projected estimate of $2.6 billion in May 2008, due to devaluation of mining assets and a sharp fall in copper prices. Sterlite, the Indian arm of the London-based Vedanta Resources Plc, acquired Asarco in March 2008.
17. HPCL acquired Kenya Petroleum Refinery Ltd., Kenya The deal amounted to $500 million.
18. Reliance Industries in March 2009 approved a scheme of amalgamation of its subsidiary Reliance Petroleum with the parent company. The all-share merger deal between the two Mukesh Ambani group firms was valued at about Rs 8,500 crore ($1.68 billion). This makes it India's 11th largest M&A transaction till date. Post-merger, RPL shareholders received one fully paid equity share of Rs 10 each of the company for every 16 fully paid equity shares of Rs 10 each of RPL held by them. The RIL-RPL merger swap ratio was at 16:1. The merger became effective from April 1, 2008.
19. Japanese telecom giant NTT DoCoMo picked up a 26 per cent equity stake in Tata Teleservices for about Rs 13,070 crore ($2.7 billion) in November 2008. This is the 6th-largest M&A deal involving an Indian company.
20. With a subscriber base of 25 million in 20 circles DoCoMo paid Rs 20,107 per subscriber to acquire the stake. DoCoMo picked up the equity through a combination of fresh issuance of equity and acquisition of shares from the existing promoters
21. VSNL acquired Teleglobe, Canada through a deal of $239 million.
22. Indian Hotels acquired Campton Place Hotel, US the acquisition deal amounted to $58 million in April 2007
23. Indian Hotels acquired Starwood group (W. Hotel), Sydney, the acquisition deal amounted to $29 million in December 2005
24. Indian Hotels acquired The Pierre, US, the acquisition deal amounted to $9 million in July 2005
25. Tata Coffee acquired Eight O’ Clock Coffee Company, US, the acquisition deal amounted to $220 million in June 2006
26. Tata Communications acquired Transtel Telecoms (TT), South Africa, the acquisition deal amounted to $33 million in April 2007
27. Tata Communications acquired BT Group's (BT) Mosaic Business, UK, the acquisition deal amounted to £0.5 million in January, 2010
28. TCS acquired Citigroup Global Services, US, the acquisition deal amounted to $512 million in December 2008
29. Tata Motors acquired Daewoo Commercial Vehicle Company, Korea, the acquisition deal amounted to KRW120 billion ($102 million, Rs. 465 crore) in March 2004
30. Tata Power acquired Geodynamics, Australia, the acquisition deal amounted to $37.5 million in September 2008
31. Voltas acquired Rohini Industrial Electricals, India, the acquisition deal amounted to Rs. 62 Crore in August 2008
32. TRF acquired Dutch Lanka Trailer Manufacturers, Sri Lanka, the acquisition deal amounted to $8.67 million in July 2009
33. Tech Mahindra Limited acquired fraud-hit Satyam Computer Services Ltd, the acquisition deal amounted to $576 million in 2009
34. Sesa Goa Limited acquired Dempo Mining Corp. Pvt. Ltd., the acquisition deal amounted to $350 million in 2009
35. Trent acquired Landmark, India, the acquisition deal amounted to $24.09 million (Rs103.60 crore) in August 2005
36. Tata Tea through Tata Tea (GB) acquired JEMCA, Czech Republic, the acquisition deal amounted to GBP11.60 million in May 2006
37. Reliance Industries Ltd (RIL) had acquired Trevira from Deutsche Bank, which was its second international acquisition and the first in the polyester sector, for 80 million euros. The acquisition would propel the company as the world’s biggest polyester producer in terms of capacity.

BIGGEST MERGER AND ACQUISITIONS DEALS OF TECH INDUSTRY’S IN 2009

The top 10 mergers and acquisitions in the network industry in 2009 all cracked the billion-dollar barrier, and involved vendors in hardware, IT services, collaboration, storage, wireless infrastructure and other segments. IT behemoths such as Oracle, Cisco, Dell, HP, EMC and IBM were among the biggest spenders. Here are the top 10 acquisitions from 2009 based on publicly disclosed transaction values, including some deals that are still pending and may not be completed until 2010.

1. **Oracle-Sun: $7.4 billion:** It seems a long time ago that Oracle announced its blockbuster deal to purchase the struggling Sun Microsystems, giving the industry's largest database software vendor entry into the server and storage markets. The acquisition, still pending, was announced in April, and may even be blocked because European regulators are contending that combining Oracle's technology with Sun's open source MySQL database would violate competition laws. Oracle-Sun is by no means a done deal, but if it goes through it would give Larry Ellison new ammunition against Microsoft (in the database market) and against big hardware vendors such as IBM, HP and Dell.
2. **Xerox-Affiliated Computer Services: $6.4 billion:** In one fell swoop Xerox was able to triple its services revenue from $3.5 billion to $10 billion a year with the purchase of business process outsourcer Affiliated Computer Services. The agreement, announced in September, combines 74,000 ACS employees with Xerox's staff of 54,000, which runs the company's longtime photocopier business and various document management technologies and services. Xerox believes ACS will help it penetrate new markets without huge amounts of overlap, saying that only about 20% of the companies' customers are common to both businesses.
3. **Dell-Perot Systems: $3.9 billion:** Just days before Xerox's big move, Dell announced an agreement to buy Perot Systems, another major IT services firm founded by Ross Perot. Dell is betting that Perot will help it become a leading services company, and allow it to sell more hardware to existing Perot customers, many of whom are in the healthcare and government industries. Dell's purchase can also be seen as a response to rival HP's $13.9 billion acquisition the previous year of EDS -- another services company founded by Perot.
4. **Cisco-Tandberg: $3.4 billion:** Cisco, already a major player in collaboration products with WebEx and TelePresence, signed an agreement in October to purchase videoconferencing vendor Tandberg, which makes both video devices and network infrastructure products. The acquisition, if completed, could have both a direct and indirect impact on Cisco's bottom line, because expanded use of videoconferencing may increase network traffic, letting Cisco sell more switches and routers. The deal, announced in October, is still pending. Shareholders initially objected to the acquisition but Cisco now appears to have won enough support to complete the merger.

5. **Cisco-Starent Networks: $2.9 billion:** Cisco's multibillion dollar purchase of Starent, announced in October, boosts the vendor's IP-based mobile infrastructure for several types of wireless networks, including LTE and WiMAX. Cisco had already made an investment in WiMAX with the $330 million purchase of Navini Networks in 2007, and a supply contract with Clearwire in 2009. But LTE is gaining steam as well, with both Verizon and AT&T saying they will use LTE for their 4G networks. Starent's technology has been deployed by more than 100 mobile operators in 45 countries.
6. **HP-3Com: $2.7 billion:** HP is launching an assault on Cisco in the data center networking and convergence markets with its purchase of 3Com, a maker of switches, routers and security products. The deal, announced in November, gives HP a core switch, the H3C 12500, to compete against Cisco's Nexus 7000, as well as significant market presence in China. But the acquisition, which is facing a shareholder lawsuit, also suffers from overlap at the low end of the companies' switching lines and in wireless networking.
7. **EMC-Data Domain: $2.1 billion:** EMC had to outfox rival NetApp to make this top 10 list, as the storage vendor won a six-week bidding to purchase Data Domain and gain new technology in the data de-duplication market. De-duplication helps companies save money by reducing data storage needs, which is why both EMC and NetApp believe it will play a major role in the storage market in the coming years. NetApp originally had a $1.5 billion signed agreement to purchase Data Domain, but EMC swooped in and kept raising the price until the smaller NetApp could no longer afford to stay in the bidding.
8. **Emerson-Avocent: $1.2 billion:** Emerson is expanding its IT operations management portfolio with the addition of Avocent, which makes software, hardware and embedded technologies designed to simplify management of complex data centers. Emerson said Avocent's configuration and monitoring technologies are complementary to its own power, energy management and cooling systems, and will thus help customers tackle the growing problem of energy inefficiency. The acquisition, which will also expand Emerson's capabilities in the KVM switching market, is expected to close around Jan. 1, 2010.
9. **IBM-SPSS: $1.2 billion:** IBM is spending more than $1 billion to expand its analytics software capabilities, with SPSS and its predictive analytics tools that help companies mine historical business data to identify future trends. "IBM sees potential applications for SPSS tools in helping financial services companies retain customers, preventing crime and picking the optimal site for a new store or factory," the IDG News Service reported in July when the acquisition was announced. The purchase is just the latest step in IBM's strategy of bolstering its line of business analytics tools. Previously, Big Blue acquired data discovery technology from Exeros and paid $5 billion for business intelligence vendor Cognos.
10. **Ericsson-Nortel Networks' wireless assets: $1.13 billion:** Ericsson won a bidding war over the wireless assets of bankrupt Nortel Networks, beating out offers from Nokia Siemens Networks, the private equity firm Matlin Patterson and Research in Motion. Specifically, Ericsson won Nortel's CDMA and LTE wireless networking business, allowing the Swedish company to strengthen its presence in North America. Nortel customers in North America that will now be supplied by Ericsson include Verizon Wireless, Sprint, U.S. Cellular, Bell Canada, Leap and Telus, Network World reported when the deal was announced in July. Because of the Nortel purchase and other strategic deals, Ericsson will have 14,000 employees and $5 billion in revenue from North America

LARGEST FOREIGN MERGERS AND ACQUISITIONS IN THE YEAR 2008

S.No.	Target (%Sought/Acquired)	Acquirer	Acquirer / Target Nation	Value (US $m)
1	Philip Morris Intl Inc (100%)	Shareholders	Switzerland / Switzerland	112,955.20
2	Anheuser-Busch Cos Inc (100%)	InBev NV	Belgium / United States	60,408.10
3	Merrill Lynch & Co Inc (100%)	Bank of America Corp	United States / United States	48,766.20
4	Genentech Inc (47.6%)	Roche Holding AG	Switzerland / United States	43,655.40
5	Time Warner Cable Inc (85.2%)	Shareholders	United States / United States	42,129.70
6	Alltel Corp (100%)	Verizon Wireless Inc	United States / United States	28,100.00
7	Alcon Inc (52%)	Novartis AG	Switzerland / United States	27,733.70
8	RBS (57.94%)	HM Treasury	United Kingdom / United Kingdom	26,062.90
9	HBOS PLC (100%)	Lloyds TSB Group PLC	United Kingdom / United Kingdom	25,439.50
10	William Wrigley Jr Co (100%)	Mars Inc	United States / United States	23,194.20
11	Fortis Bank Nederland(Holding) (100%)	Netherlands	Netherlands / Netherlands	23,137.30
12	Union Fenosa SA (49.5%)	Gas Natural SDG SA	Spain / Spain	22,750.20
13	British American Tobacco PLC (27.1%)	Shareholders	Switzerland / United Kingdom	19,826.70
14	Rohm & Haas Co (100%)	Dow Chemical Co	United States / United States	18,585.10
15	St George Bank Ltd (100%)	Westpac Banking Corp	Australia / Australia	17,933.00

LARGEST FOREIGN MERGERS AND ACQUISITIONS IN THE YEAR 2009

S.No.	Target (%Sought/Acquired)	Acquirer	Acquirer / Target Nation	Rank Value (US $m)
1	Wyeth (100%)	Pfizer Inc	United States / United States	64,479.70
2	Rio Tinto PLC-WA Iron Ore Asts (100%)	BHP Billiton-WA Iron Ore Asts	Australia / Australia	58,000.00
3	Schering-Plough Corp (100%)	Merck & Co Inc	United States / United States	45,704.40
4	General Motors-Cert Assets (100%)	Vehicle Acq Holdings LLC	United States / United States	42,979.50
5	RBS	HM Treasury	United Kingdom / United Kingdom	41,878.70
6	XTO Energy Inc (100%)	Exxon Mobil Corp	United States / United States	40,659.10
7	Burlington Northern Santa Fe (78.1%)	Berkshire Hathaway Inc	United States / United States	35,948.00
8	Citigroup Inc (38.81%)	Preferred Shareholders	Unknown / United States	28,078.30
9	Cenovus Energy Inc (100%)	Shareholders	Canada / Canada	23,312.90
10	Cadbury PLC (100%)	Kraft Foods Inc	United States / United Kingdom	19,255.40
11	Petro-Canada (100%)	Suncor Energy Inc	Canada / Canada	18,245.80
12	Liberty Entertainment Inc (100%)	DirecTV Group Inc	United States / United States	14,499.10
13	NBC Universal Inc (100%)	Comcast Corp	United States / United States	14,400.00
14	Endesa SA (25.01%)	Enel SpA	Italy / Spain	13,470.00
15	Barclays Global Investors Ltd (100%)	BlackRock Inc	United States / United States	13,345.20

CONCLUSION AND SUGGESTIONS

Identifying and understanding your customers is the first step toward success. Marketers will need to know and understand their product categories, how the industry operates and how changes will impact their brands. A strong brand name allows consumers to immediately recognize your product and an established brand has developed quality and value to the consumer as well as brand loyalty in that product's category. The success of a company is directly related to the investment made in its brand name Deals today need to be fairly structured, reasonably priced and genuinely make sense … or they will not get done.

The circumstances and reasons for every merger are different and these circumstances impact the way the deal is dealt, approached, managed and executed.

.However, the success of mergers depends on how well the deal makers can integrate two companies while maintaining day-to-day operations. Each deal has its own flips which are influenced by various extraneous factors such as human capital component and the leadership. Much of it depends on the company's leadership and the ability to retain people who are key to on going success of companies. It is important, that both the parties should be clear in their mind as to the motive of such acquisition i.e. there should be census- ad- idem. Profits, intellectual property, customer base are peripheral or central to the acquiring company, the motive will determine the risk profile of such M&A. Generally before the onset of any deal, due diligence is conducted so as to gauze the risks involved, the quantum of assets and liabilities that are acquired etc.

Any M&A should be viewed as an activity good for both the organization and for the employees rather than as a time of employee uncertainty and insecurity. The focus on the human dimension of M&A will significantly impact the bottom-line success. It will also result in less organizational turmoil, and ultimately determine the overall success of the M&A transaction. All practitioners working on the M&A have the opportunity to serve as role models by working collaboratively from the outset to realize the possibilities of a successful M&A.

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MANAGEMENT OF NPAS IN DCCBS IN INDIA – AN EMPIRICAL ASSESSMENT

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ABSTRACT

In the present paper, an attempt has been made to analyse the NPAs position and growth of District Central Cooperative Banks (DCCBs) in India. Gross NPAs of DCCBs in India stood at Rs.18,728 crores (20.50) per cent of total Gross Advances) and Net NPAs at Rs.6,653 crores as on March 31,2008(8.39 per cent of total Net Advances).These figures pose a severe threat to the profitability of these banks. The NPAs hit banks in several ways. Not only banks lose income on these assets, but they are bad for the economy.

KEYWORDS
Doubtful Assets, Loss Assets, Non-Performing Assets, Standard Assets, Sub-Standard Assets.

INTRODUCTION
In line with the international practices and as per the recommendation made by the Committee on financial system under the chairmanship Shri M. Narasimham. The RBI has introduced, in a phased manner, prudential norms for income recognition, Asset Classification and Provisioning for the advances portfolio of the Banks so as move toward greater consistency and transparency in the published account.

The introduction of prudential norms has ushered in a new era in the reform process of banking industry as a whole. The identification of the NPAs as per the prudential norms specified by the RBI is a pre-requisite for the proper management of the NPAs. As per the guidelines of the RBI, the State Co-operative Banks and the Central Co-operative Banks started implementing the prudential norms from the accounting year 1996-1997. One of the major reasons cited for the introduction of the norms has been the persistence of Non-performing Assets (NPAs) in banks.

Loans or advances given by banks become Non-Performing when the interest and /or instalment of principal remains overdue for more than 90 days. Advances which do not generate any income and which are doubtful affect the very vital function of banks viz. intermediation (mobilizing savings and providing finance for investment).

Loans and advances given by banks are classified as standard assets, sub-standard assets, doubtful assets and loss assets. Sub-standard assets, doubtful assets and loss assets together are called Non-Performing assets. Where assets are Non-performing a provision is required to be maintained.

A PROFILE OF DCCBs
There are at present 371 District Central Cooperative Banks serving 31 states in India, By end of the year 2007-08 the total deposits of the banks stood at Rs.1,02,986 crores. During the year, the total investments of the banks amounted to Rs.44,419 crores. The Gross NPAs to Gross Advances ratio also was considerably high from 17.85 per cent in 2001 to 20.50 per cent in 2008. NPAs affect the liquidity, profitability and equity of the banks hence, the present study elucidates the magnitude of NPAs and their relationship with other category of Assets such as standard assets, sub-standard assets doubtful assets and loss assets.

MEANING OF NPA
NPA is defined as an advance for which interest or repayment of principle or both remain outstanding for a period of more than one quarter. The level of NPA act as an indicator showing the bankers credit risks and efficiency of allocation of resource.

ASSET CLASSIFICATIONS
The RBI has issued guidelines to banks for classification of assets into four categories.

1. STANDARD ASSETS
These are loans which do not have any problem are less risk.

2. SUB-STANDARD ASSETS
These are assets which come under the category of NPA for a period of less than one year.

3. DOUBTFUL ASSETS
These are NPA exceeding one year.

4. LOSS ASSETS
These NPA which are identified as unreliable by internal inspector of bank or auditors or by RBI/NABARD.

REASON FOR NPAs
The major reasons for high NPAs are:
- The slow, inefficient and decrepit legal system.
- Diversion of funds and diversification of business.
- Demand recession.
- Depressed capital market.
- Changes in government policy.
- Environment and pollution control measures.
- Fear psychosis among banks for compromise settlements.
- Industrial sickness and labour problems.
- Improper and inadequate credit appraisal.
- Poor post loan supervision and follow up (Policing of assets by banks).
- Product /marketing /Business failure.
- Inefficient management.
- Inappropriate technology.
- Changes in Macro Economy /Resources.
- Time /Cost overrun of projects implementation.
- Inadequate supervision.

- Delay in sanction of loan.
- Wilful default.
- Siphoning of funds.
- Frauds.
- Misappropriation.
- Political compulsions and corruption etc.

The Indian legal system had been more geared to project borrowers and not lenders. The legal system in India which had been long-drawn and ineffective has definitely affected the recovery climate in banks.

STATEMENT OF THE PROBLEM

NPAs affect the profitability of banks on account of non-booking of interest income and provisioning requirements. In addition, the capital adequacy ratio is also affected. NPA levels affect rating by credit rating agencies, which in turn affect the cost of resources mobilised by the Banks. The Gross NPAs of DCCBs in India as on 31-03-2008 stood at Rs.18,728 cores respectively, which represents funds locked and not available for recycling. More over high level of NPAs for Urban and Rural Credit Cooperative Institution continue to be the major area of concern and thus, Cooperative sectors, as observed the Committee on Financial Sector Assessment (CFSA) 2009, remain 'one of the weak links in the Indian financial landscape'. Hence a complete examination into the reasons for higher NPAs would help suggest measures for managing NPAs, improving banking operation and ultimately for reducing NPAs at the DCCBs' level.

REVIEW OF LITERATURE

Literature available on the subject reveals that both empirical and non-empirical studies have already dealt with the problem of NPAs and their impact on the performance of banks from the angle of profitability, liquidity, equity and change in their approach to business. A brief review of these studies is presented here.

A stud by the Office of the Comptroller of Currency (OCC) of the United State in 1988 found that poor asset quality was a major factor responsible for the failure of 98 per cent of the banks. Hence, reduction in gross NPAs was desirable.[1]

Kwan, et al., (1994) also concluded that there is a negative relationship between efficiency and the problem of loans.[2]

Ross Gary (1996) in the study 'Risk Happen, focused on the risk and performance relationship in commercial banking. It is not evident that banks never approved a loan with the intent that the loans would become Non-Performing Assets and that an organisation might learn from its prior decisions as banks continue to accumulate non-performing loans in the normal course of business.[3]

Gupta and Debashish (1997) also concluded that NPAs affect the profitability of banks and lead to liquidity crunch.[4]

According to the comparative study of NPA by Satyanarayana (1998), the NPA in Venezuela, Mexico, Thailand, Brazil, Japan, Taiwan, Colombia, Chile, Korea, Argentina, Intonesia, Malaysia, Hongkong, U.S.A. and Singapore indicated that except in Latin America the NPA levels were in single digit (6 per cent to 7 per cent). India was viewed unfavourably in the international arena, as India has the highest proportion of NPAs (14.45 per cent) among the sixteen countries in 1994-1995.[5]

P.K. Bhattacharjee (1999) in his paper finds that the Indian banking system has an asset backed loan system supported by collaterals and guarantees. The gross NPAs in India are 17 per cent whereas in China it is 25 per cent to 45 per cent.[6]

S.G. Phadhis (1999) justified the Narasimham Committee's observation that asset quality was very poor in directed lending, since around 48 per cent of NPAs were in the priority sector advances group.[7]

Klingebiel and Daniela (2000) discussed the suitability model of asset reconstruction companies to solve the problem of NPAs. Only a few studies have highlighted the impact of NPAs on the performance of banks.[8]

P. Ganesan (2001) in his study with a bearing on NPAs and banks' dealt with administrative measures to improve the profitability of banks. In an empirical study on the determinants of profitability of the public sector banks in India, it has been observed that credit flow into the economy could not produce any positive impact over banks' profitability due to higher NPA when cost incurred on defaulted and other loan assets is high.[9]

H. Srinivasa Rao (2002) in his thesis suggested that the Andhra Pradesh State Co-operative Bank (APCOB) should initiate certain steps like monitoring the spending pattern of loans (indirectly), implementation of the NABARD guidelines, and designing and implementation of collection policies to solve the problems of NPAs, by issuing necessary guidelines to the DCCBs and PACS at the grass root level.[10]

Monica Soni, (2002) in her paper analyses the NPA position of two major components of Rural Banking viz. the Co-operative Banks and the Regional Rural Banks. The situation with regard to NPA management by different co-operative banks is not at all satisfactory. It shows that a large proportion of total NPAs is contributed by RRBs in the current viability category.[11]

A study done by Santi Gopal and Soma Dey (2003) showed that it is a paramount task for the banks to manage their NPAs more efficiently so that they can change their character from NPAs to performing assets. This study makes an attempt to analyse the loan amount-wise, age-wise, head-wise and sector-wise classification of NPAs and to identify the factors responsible for the growth of NPAs of the Khatra People's Co-operative Bank Ltd., UCB, in the district of Bankura in West Bengal.[12]

K. Rajendran (2004) in his article "Non-performing assets" concluded that increasing NPA exercises a major impact on the DCCBs. DCCBs shall have to educate their employees on NPA and its effect on the bank. Change in NPA norms and credit monitoring and recovery mechanism should be strengthened.[13]

K.C. Chakraborty (2005) in his article pointed out that the banks have to face several challenges in managing NPAs. Besides ensuring better scrutiny of the credit proposals before sanction, banks need to watch closely and monitor the assets from the beginning. In fact, NPA management begins right from the selection of borrowers.[14]

T. Vanniarajan (2006) focused his paper on the problem of NPAs and found that they were more in public sector banks as compared to other banks. NPAs have a direct impact on a bank's profitability, liquidity and equity.[15]

C. Lakshmanan and A. Dharmendran (2007) in their article said that the problem of Non–Performing Assets (NPAs) is less in the Chennai Central Co-operative Bank as compared to the other CCBs in Tamil Nadu. They also focused on the impact of NPAs on the Net Profit, Investment, Legal Expenses and Spread of the bank. The study concludes that the effective management of NPAs is essential to strengthen the financial position of the bank.[16]

N. Ramu (2008) in his article concluded that the NPAs of sample banks chosen for study in within manageable level, but the Thirumangalam Cooperative Urban Bank Ltd (TCUB) have to face severe recovery problems. As per CAMELS rating model the highest weight age (i.e.25 per cent)is given to asset quality component by RBI. The solution to the problem of NPAs lies in strengthening the credit management in banks. Over a period by removing the present deficiencies observed in the standards of credit appraisal, monitoring and improving the overall lending policies of the banks. The process of NPA management does not start after filing at suit, but starts from identification of a right borrower. [17]

Studies so far made on the subject have not come out with any tangible and practical solutions to contain/put up with the problem of NPAs and no lasting solution to arrest/manage the problem and there by strengthening the books of accounts of the banks, has come about. In the scenario, this is an attempt to bridge this gap in solutions and offer a simple, workable and viable remedy to the problem of management of NPAs at least for future.

OBJECTIVE

The objective of this paper is to assess the position and growth of NPAs in DCCBs in India.

METHODOLOGY

The data collected from secondary sources for the eight years from 2001 – 2008. The data published by Reserve Bank of India (RBI) and National Bank for Agricultural and Rural Development (NABARD) is suitably compiled and analysed for the purpose of study. The statistical results are obtained by using SPSS Version 10.

Compound growth rates were estimated for the classification of assets in DCCBs. An exponential function of the following type was employed to estimate the growth rates.

Y_t = abt

Where,

Y_t = Classification of assets

a = Intercept

b = Parameter

t = Years

Compound Growth Rate = (Anti log of b-1) x 100

LIMITATION OF THE STUDY

The present study covers a period of eight years for secondary data from 2000-01 to 2007 -08 for study purpose. Data were available up to 2007- 08 during the field work and accordingly data up to 2007-08 were alone used for analysis. This may not be fully relevant to the later period.

RESULT AND DISCUSSION

TABLE-1: TRENDS IN NPAs OF DCCBs DURING MARCH 2001-2008 (Rs IN CRORE IN PER CENT)

Sr.No	Asset type	2001	2002	2003	2004	2005	2006	2007	2008	CGR
1.	Standard Assets	43120 (82.15)	47431 (80.03)	49336 (78.07)	51008 (75.96)	58605 (80.14)	63493 (80.17)	72542 (81.47)	72646 (79.50)	9.82
2.	Sub-Standard Assets	4994 (9.51)	6325 (10.67)	7603 (12.03)	8428 (12.55)	6468 (8.85)	6905 (8.72)	6375 (7.16)	7858 (8.60)	5.80
3.	Doubtful Assets	3466 (6.60)	4245 (7.16)	5060 (8.00)	6068 (9.04)	6053 (8.28)	6699 (8.45)	7648 (8.59)	8210 (8.99)	11.40
4.	Loss Assets	911 (1.74)	1268 (2.14)	1199 (1.90)	1648 (2.45)	1999 (2.73)	2106 (2.66)	2471 (2.78)	2660 (2.91)	14.30
5.	Total Gross NPAs (Total of 2 to 4)	9371 (17.85)	11838 (19.97)	13862 (21.93)	16144 (24.04)	14520 (19.86)	15709 (19.83)	16495 (18.53)	18728 (20.50)	9.00
6.	Total Gross Advances(1 to 4)	52491 (100)	59269 (100)	63198 (100)	67152 (100)	73125 (100)	79202 (100)	89037 (100)	91374 (100)	7.20
7.	Total Provision for NPAs	N.A	N.A	6384	6900	11387	9440	12163	12075*	14.37
8.	Total Net NPAs (5-7)	_	_	7478 (13.16)	9244 (15.34)	3133 (5.07)	6269 (8.99)	4332 (5.64)	6653 (8.39)	-6.00
9.	Total Net Advances (6-7)	_	_	56814	60252	61,738	69762	76874	79299	7.47
10.	Gross NPA Coverage Ratio (7/5)(%)	_	_	46.05	42.74	78.42	60.09	73.74	64.48	_

*Provision,N.A- Not Available

(-)Figures in Bracts at Sr.No.1 to 5 are percentage to respective year's Gross Advances (Sr.No.6) and at Net NPAs (Sr.No.8) to Net Advances (Sr.No.9).

Basic Source: (i) Report on Trends and Progress of Banking in India, 2000 - 01 to 2007- 08.
(ii) NABARD.

Note: CGR – Compound Growth Rate.

Table 1 shows the trends in NPAs during the study period for all the 371 DCCBs in India. Gross NPAs of DCCBs (Table-1) stood at Rs.18,728 crores, as on March end 2008 consisting of Rs.7,858 crores in sub-standard category, Rs.8,210 crores in doubtful and the remaining Rs. 2,660 crores in loss category where the salvage value in negligible. In percentage terms, Gross NPAs amounted to 20.50 per cent of gross advances consisting of 8.60 per cent in sub-standard, 8.99 per cent and 2.91 per cent in doubtful and loss categories respectively. Though in absolute terms the gross NPAs went up from Rs.9,371 crores, as on March end 2001, to Rs.18,728 crores in 2008 growing @ 9 per cent for annum, there was increased in percentage terms 17.85 per cent to 20.50 per cent during the said eight years period due to obvious increase of the denominator at a rate faster than the numerator. As the provision against NPAs went up from Rs.6,384 crores to Rs.12,075 crores during 2003 to 2008 growing @ 14.37 per cent per annum the net NPAs come down from Rs.7,478 crores in 2003 to Rs.6,653 crores in 2008 growing @ -6 per cent per annum. The coverage ratio of provision to gross NPAs was 46.05 per cent in 2003 and went up to 64.48 per cent in 2008.

MANAGEMENT OF NPAs

The level of NPAs in the Indian Cooperative Banking Industry is a concern and thus urgent cleaning up of bank balance sheet has become a crucial issue. Although, a ratio of Gross NPAs to Gross Advances has been reduced to some extent but still it is very high in absolute terms. An effective and prudent management of NPAs consist of:

- To check creation of NPAs in the first place particularly of fresh loans.
- Improvement in the quality of NPAs i.e. to reduce slippage of a low grade NPA to next high level.
- Reduction of NPAs.

So NPAs would have to be reduced drastically and for the same purpose the following strategies for reducing NPAs are:

- Reducing the existing NPAs and curbing their further build up.
- Maintenance and regular updating of client profile. Credit rating of clients.
- Computerisation of loan accounts.
- Strong inters department management information system among loans, operations and recovery departments.
- To establish a system of early warning (EWS) for potentially weak loan accounts. Some key signals are nature of operations in the accounts, persistent default, overdraw, diversion of funds, lowering of rating etc.
- Observance of limitation period.

- Timely extension of period of limitation by-

- acknowledgement of debt
- receipt of partial payment
- renewal of documents.

- General strategies-

- effect recovery
- compromises to improve recovery status of account
- partial write off
- adjustment to collateral securities
- pressure on guarantors
- special recovery drive
- help from revenue authorities.

- Replacement of Loans/Rescheduling of demands.
- Rehabilitation of potentially viable units.
- Compromise with borrowers for final settlements.
- Calling up the advances and filing of civil suits.
- Increasing the number of Debt Recovery Tribunals(DRTs).
- Settlement of claims with DICGC/ECGC.
- Write of the outstanding.
- Do not consider projects with old technology for finance.
- Do not consider financing term loans for maturities longer than 5 years except in case of agriculture, infrastructure and SSI.
- Complete ban on generalized loan waivers.
- Provide financial help to from Asset Reconstruction Fund (ARF).
- Collect interest from clients on a monthly basis instead of quarterly collection.
- Compulsory annual review of borrower accounts with sufficient disclosure in balance sheet. For this purpose, change the review format to analyse both quantitative and qualitative data.
- Train the staff to closely monitor credit worthiness of borrowers and the end use of bank loans to avoid major post-defaults, so finance only for the productive projects.
- At the time of credit appraisal, observe and consider the list produced by RBI of defaulters and suit-filed cases thoroughly.
- Special officer/managing director should visit the branches periodically to monitor timely and preventive action should be taken by the branches.
- Separate credit-monitoring and audit cells should be installed in the banks.
- Eliminate political interference in disbursing loans.

Hence, the above said of strategies should be considered to arrest the trend of ever increasing level of NPAS.

FINDINGS AND SUGGESTIONS

1. NPAs include sub-standard assets, doubtful assets and loss assets. The growth rates of sub-standard assets, doubtful assets and loss assets were positive in all the DCCBs in India with 5.80 per cent,11.40 per cent, and 14.30 per cent per annum respectively. The positive growth rates of these assets would have led to falling profitability and erosion of the net worth of the banks. The banks have to minimise these assets considerably through effective recovery proceedings for earning profit.
2. The growth rates of Gross NPAs and Net NPAs in all DCCBs in India were 9 percent and -6 per cent per annum respectively. The problems of NPAs together (both in gross and net terms) were relatively high during the study period increase in provision for NPAs will lead to decrease in Net NPAs, and vice versa. NPA is not just a problem for banks, they are bad for the economy. The money locked up as NPA is not available for productive use and to that extent the banks seek to make provisions for NPA or write them off. It adversely affects their profit and results in a higher rate of interest to their diligent borrower customers. This also raises the cost of administration. The steps taken at the appropriate time may help in avoiding NPAs. Qualitative appraisal, supervision and follow up should be taken up for the present advances to avoid future NPAs.
3. Positive growth rates of standard assets were found in all the DCCBs with 9.82 per cent per annum. The task of containment of NPAs by arresting slippage of accounts from standard assets to NPAs was a cause of concern for almost all the banks due to the government policy of liberal credit to farmers and other weaker sections under priority sector loan. Relentless monitoring and introduction of loan review mechanism of standard assets may be of some help in containing the slippage to NPAs.
4. The positive growth rates in provision for NPAs in all the DCCBs with 14.37 per cent per annum result in the growing problem of the existence of NPAs. This suggests that the quality of assets must be improved through an effective credit delivery system and an effective recovery mechanism.

CONCLUSION

The DCCBs play a significant role in the economy of India. The overall performance of the DCCBs in India is, however, a mixed one. The heavy overdues, inefficient funds management, inadequate and untrained staff, lack of adequate supervision, poor profit earning, defective loan policies, book-adjustments and inadequate bad and doubtful debt reserves are some of their weaknesses. The accumulation of NPAs has been detrimental to the financial health of the banks. The banks have faced additional burden by creating more provision for management of NPAs. While the profitability of the banks is rather low, the liquidity position warrants strengthening. The depleting solvency is fatal to operational efficiency.

This picture reiterates the need for effective recovery management, particularly of short-term loans. Stringent measures must be taken to control and prevent NPAs; besides, effective credit monitoring and use of effective execution of decrees, and resort to various avenues of recovery, especially compromise settlements, would contain the problem of NPAs effectively.

If the study could help the planners and officials of the co-operative banks in removing the problem of NPAs. It is hoped that this endeavour will provide the basis for further research in other banks of India. The Author has the satisfaction of having undertaken a socially relevant study.

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IMPACT OF MOBILE MARKETING ON THE PURCHASE DECISION OF CONSUMERS: A STUDY OF JALANDHAR REGION

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ABSTRACT

Innovation creates marketing opportunities and challenges. Mobile advertising, an area of mobile commerce, is a form of advertising that targets users of handheld wireless devices such as mobile phones and PDAs. It can reach the target customers anywhere anytime. The primary objective of this study is to gain an insight into the perception of mobile users, towards mobile marketing/advertising and their utility value in terms of impact on the purchase decision. Hence we are attempting to explore consumers' responsiveness to mobile marketing and their perception, taking into cognizance the impact of demographic factors. The study also aims to concretize some features enhancing the acceptability/ utility of mobile marketing/advertising and suggests an appropriate strategic initiative for the same. The major findings reveal that the perception of consumers towards mobile marketing is that they find it time consuming, always relayed at wrong time, too many ads creating a clutter and not suitable to their personal needs etc. Further results indicate that mobile marketing/ advertising (in its current format) does not have a significant impact on the purchase/brand decision of consumers. Mobile marketing is relatively at a nascent stage in India. Distinct preferences were expressed by customers regarding the desirable content of such messages.

KEYWORDS

Mobile marketing, Consumer perception, Consumer purchasing behaviour.

INTRODUCTION

Mobile marketing and advertising are coming of age. Seen as the most personal means of communication with consumers, mobile advertising is rallying to overcome the stigma of larger advertising markets – print, TV, radio and online. Despite scrutiny over advertising spending in an economic decline, mobile advertising has remained flat year-over-year and in some areas made minor gains. SMS and messaging continue to dominate as the vehicles able to interact with the largest portion of the installed base for mobile phones. Mobile games used to represent the total sum of in-application advertising, but not anymore. The surge in smart phone applications broadens the appeal for marketing messages inserted during program runtime. Location is the mobile marketer's best friend as it quickly becomes an integral component for precision audience targeting.

This study examines the expansion and growth of the mobile segment. The report defines mobile marketing, describes major ecosystem players and delves into a range of popular and emerging technology channels used to communicate directly with the mobile consumer, including: messaging, search, web, video and applications. The study also describes the role that Proximity Marketing and Location-Based Services have in reaching the actively shopping consumer. Mobile marketing can refer to one of two categories of marketing. First, and relatively new, is meant to describe marketing on or with a mobile device, such as a mobile phone (this is an example of horizontal telecommunication convergence). Second, and a more traditional definition, is meant to describe marketing in a moving fashion - for example - technology road shows or moving billboards. Mobile Marketing is a set of practices that enables organizations to communicate and engage with their audience in an interactive and relevant manner through any mobile device or network.Marketing on a mobile phone has become increasingly popular ever since the rise of SMS (Short Message Service). Over the past few years SMS has become a legitimate advertising channel in some parts of the world.

REVIEW OF LITRATURE

Godin (1999) found that new media in the digital economy had created potentially powerful tools for direct and interactive marketing. Traditional marketing communication strategies had been based on the interruption logic where the consumer was forced to momentarily pay attention.Krishnamurthy (2001) proposed a conceptual framework for managing online advertising using the permission marketing approach. Permission marketing requires the consumer to participate in the programme by giving the permission and the information for continuing the relationship. The interest in this participation arises from the balance of benefits (message relevance and monetary benefits) and costs (personal information, message processing costs, privacy costs) for consumers.

Li et al (2002) discussed how negative reactions like irritation arise through intrusion advertising. The channel influences consumer responsiveness to marketing communication by being perceived as either disturbing or acceptable (Abernethy 1991). If the consumer considers marketing communication via a channel as disturbing it may negatively affect the attention to and perception of the message. In contrast, the channel may also enhance the acceptance of the marketing communication if it is perceived as appropriate for the specific marketing communication. Also, some consumers may perceive the channels as neutral, i.e. it is neither disturbing nor accepted. Despite substantial marketing potential, research on mobile advertising and particularly through its most successful application, short message service (SMS) is still embryonic.

Marinova, Murphy and Massey (2002) Permission marketing was introduced as a new managerial approach in marketing communication. It had been argued that firms benefit from getting consumers' permission to be contacted Permission from the consumer would resolve the difficulties to get access to the consumer. Permission was, however, not necessarily a guarantee that the consumer pays attention; it was only a door opener and gives an indication of the consumer's potential interest areas. Barnes (2002) in his paper stressed the interactive nature of mobile advertising and the ability to use contextual information to target the messages to individual receivers, in other words to personalize the message. He further emphasized that location-aware advertising messages were creating five to ten times higher click-through rates compared to traditional internet advertising messages.

Heinonen & Strandvik (2003) showed that mobile channels were perceived to be more personal than traditional and e mail channels. This creates high expectations for the relevance of marketing communication messages. A consumer expects messages to be personal and of high interest and this makes the disappointment greater when they get undesired messages. Mobile advertising may even step over the line of discretion and invade consumers' privacy because of the personal nature of the mobile device.Trappey & Woodside, (2005) Although SMS suffers a limitation from the 160 character text-only format, innovations such as the ability to send barcodes improve opportunities for coupons, point-of-sale redemption, and ticket purchases (have opened opportunities for marketing via mobile phone.

Nysveen et al (2005) combined various theoretical fields (Information system research, Uses and gratification research; and Domestication research) and indicated that marketing managers should be aware of motivational variables, such as perceived expressiveness, perceived enjoyment, perceived usefulness, and perceived ease of use, in addition to consumers' attitude toward use , normative pressure, and behavioural control for future research. Baron, Patterson, and Harris, (2006) Text messaging was first developed in 1991 for GSM digital mobile phones, almost by accident). SMS was the triumph of the consumer - every generation needs a technology that it can adopt as its own to communicate with - and the text generation took up SMS. The fact that the entry barriers to learning the service were so high were an advantage because it meant that parents and teachers and other adult authority figures were unlikely, unable and unwilling to use the service. SMS is one of the few services in consumer history that has grown very fast without corresponding decreases in pricing.

Jim Bruene (2006) According to Jim Bruene online banking is the best thing to happen to personal finance management since the invention of the paper statement. In many countries, half or more of online users routinely visit their bank to check account activities, verify deposits, and just see if everything is in order. According to a report by Mintel International Group Ltd (June 1, 2006), the forces driving the growth of the Internet-increased broadband access, new innovations that provide a secure environment, and the coming-of-age of more tech-savvy people-will combine to propel online banking as well.

Mintel expected that online banking will continue to grow and become more profitable for financial institutions, particularly as the Internet matures and subsequent generations become more technologically literate. Factors impacting online banking include the trend within the industry and the socioeconomic forces behind changing demographics Yan et al. (2006) used TAM to measured user acceptance of short message service (SMS) in Hong Kong and China and recommended that in order to formulate a successful business strategy for a specific service in a specific market, a mobile operator had to conduct a comprehensive study and identify the key external factors that will affect the perceived usefulness, perceived ease of use, and subjective norms towards acceptance of that particular service in a specific market.

Baron et al. (2006) indicated the need of further research into the importance of text messaging as a social and cultural practice in everyday lives, with emphases on addictive behaviours, learning and the development of repertoires of communication skills by increasingly sophisticated consumers, and feelings of exclusion by non-participants through qualitative research approach that reflect upon consumer text message (short message service – SMS) behaviour. Heikki Karjaluoto(2004) enhance the knowledge about the role of mobile marketing medium in companies promotion mix and to cast light on end users experiences of mobile marketing channel.

The study indicated that mobile marketing is a growing two way marketing medium that was already today cost effective and more importantly interactive channel that can be utilize to derive the sales of myriad products and services. However the new channel had many challenges such as technological and legislatorial issues that must be taken into account in planning implementing mobile marketing campaign. The results of study provide several managerial insights into the role of mobile marketing medium today and in the near future.

NEED FOR THE STUDY

The mobile market is increasing day by day and also the mobile users are increasing. The most common media for communication in present era is mobile. Most companies are focusing on mobile marketing. So there is a need to study the consumer perception towards mobile marketing and what is the impact of mobile marketing on the purchase decision of consumers.

OBJECTIVE OF THE STUDY

- To study the impact of mobile marketing on purchase decision of consumers.
- To find out factors affecting perception and attitude of consumers towards mobile marketing.
- To find the impact of demographics towards mobile marketing.

METHODS OF DATA COLLECTION

SURVEY METHOD

Direct personal interviews were conducted with the respondents to collect information. Structured questions were asked to all the respondents. A questionnaire was prepared for that.

- **Primary data**: - Primary data is collected from the respondents by conducting direct personal interviews by using structured questions.
- **Secondary data**: - Secondary data was collected from the internet, journals and text books etc.

SAMPLING DESIGN

- **Target population**: The collection of elements or objects that possesses the information sort by researchers. We have a wide range of target population that consists of all the mobile users.
- **Element**: In this study our respondents are our elements which will provide information needed by researchers.
- **Sampling unit:** It is an element or a unit containing the elements that is available for selection at some stage of sampling process. In this study sampling unit is same as an element alternatively the sampling unit might be all working and non working people.
- **Sampling frame**: It consists of a list or set of directions for identifying target population. Our frame consists of wide range of mobile users.
- **Sampling technique**: - Convenience sampling technique has been used in this study.
- **Sample size**: - a set of 150 respondents has been used in the study so sample size is 150 in this case.

HYPOTHESIS

1. H0: There is no significant impact of gender of an individual on his/her perception of mobile marketing.
2. H0: There is no significant impact of individual's occupation on his /her reactions towards mobile marketing.
3. H0: All age groups of the respondents have same response to mobile marketing.
4. H0: Effectiveness of mobile marketing and experience to purchase made on the basis of mobile marketing are the factors which has an impact on the attitude of the consumers towards mobile marketing.
5. H0: There is no significant impact of mobile marketing on purchase decision whether it provides sufficient information to purchase.

STATISTICAL TOOLS

For data analysis we had used SPSS to study the relationships and associations between the variables- Z test, chi-square test and analysis of variance is used.

DATA ANALYSIS AND INTERPRETATION

1. Hypothesis

H0- There is no significant impact of gender of an individual on his/her perception of mobile marketing.

H1- There is significant impact of gender of an individual on his/her perception of mobile marketing.

Interpretation

Independent sample Z test is applied to test the difference in the means of two categories of the gender to check out whether an individual's gender has an impact on his/her perception of mobile marketing. The value of 2 tailed Significance comes 0.777 (table 1) which is greater than 0.05 (95% confidence Interval) which means that **null hypothesis is not rejected**. It means that gender has no impact on the perception of mobile marketing. All males and females have same perception about mobile marketing.

2. Hypothesis

H0-There is no significant impact of individual's occupation on his/her reactions towards mobile marketing.

H1- There is significant impact of individual's occupation on his /her reactions towards mobile marketing.

Interpretation

Independent sample Z test is applied to test the difference in the means of two categories of the occupation to check out whether an individual's occupation has an impact on his/her reactions towards mobile marketing. The value of 2 tailed Significance comes 0.963 (table 2) which is greater than 0.05 (95% confidence Interval) which means **null hypothesis is not rejected**. It means that occupation of an individual has no impact on the reactions of people towards mobile marketing. All working and non working have same reactions towards mobile marketing

3. Hypothesis

H0- All age groups of the respondent have same response to mobile marketing.

H1-: As the age of the respondent varies his response to mobile marketing varies.

Interpretation

Analysis of variance test is used to check out the differences in the means of dependent variable in several categories. Here dependent variable is the response of the people towards mobile marketing.

Here we find that the variation between groups which is variation in response related to the variation in the means of the various groups of the age, within group is the variation in response due to the variation in each category of age. Mean square is the sum of squares divided by appropriate degree of freedom. The value of 2 tailed Significance comes .119 (table 3) is greater than the .05 which means **null hypothesis is not rejected.** All age groups of the respondent have same response to mobile marketing.

4. Hypothesis

H0- Effectiveness of mobile marketing and experience to purchase made on the basis of mobile marketing are the factors which has no impact on the attitude of the consumers towards mobile marketing.

H1- Effectiveness of mobile marketing and experience to purchase made on the basis of mobile marketing are the factors which has an impact on the attitude of the consumers towards mobile marketing.

Interpretation

The chi-square test is used to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories. Here the chi square value or the calculated values for three variables are 12.667, 47.111 and 68.667 respectively. Df is the degree of freedom which refers to the number of values that are free to vary after restriction has been placed on the data, which is 4, 4 and 14 respectively so the tabulated values at .05 significance level according to the degrees of freedom of the variables are 9.488, 9.488 and 23.685 so the calculated values of all the variables are greater than the tabulated values which means that null hypothesis is rejected (table 4). So we can say that Effectiveness of mobile marketing and experience to purchase made on the basis of mobile marketing are the factors has an impact on the attitude of the consumers towards mobile marketing.

5. Hypothesis

H0: There is no impact of mobile marketing on purchase decision whether it provides sufficient information to purchase.

H1: There is an impact of mobile marketing on purchase decision because it provides sufficient information to purchase.

Interpretation

Analysis of variance test is used to check out the differences in the means of dependent variable in several categories. Here dependent variable is the response of the people towards mobile marketing. Here we find that the variation between groups which is variation in response related to the variation in the means of the various groups of the source of information. Within group is the variation in response due to the variation in each category of age. Mean square is the sum of squares divided by appropriate degree of freedom. F statistic is a variable from which category means are equal in the population is tested based on the ratio of mean square related to dependent variable and mean square related to error. The value of 2 tailed Significance comes .078 (table 5) is greater than the .05 which means alternate hypothesis is rejected and **null hypothesis is not rejected.** There is no impact of mobile marketing on purchase decision whether it provides sufficient information to purchase.

RECOMMENDATIONS

Personalization: Marketers can personalize text messages based on the consumers' local time, location, and preferences.

Time: Less intrusive than phone calls, recipients can read text messages at their leisure and choose when to respond, if at all. Still, organizations must consider the best time and message frequency for the target group and topic.

Location: Mobile phones amplify two key arguments for electronic commerce, location independence and ubiquity. Consumers increasingly expect tailored and location-based services, thereby underlining the importance of personalized mobile marketing. Properly applied, location-based services can create or reinforce virtual communities.

Preferences: Personalizing messages increases their impact. Similar to traditional media, a personalized SMS campaign relies upon databases with enough active and potential clients to reach the target group probably. Such databases regularly contain personal information such as leisure activities, holidays, music and media interests, type of Internet access, occupation, marital status, car ownership and income.

Consumer control, permission and privacy: Gathering data required for tailoring messages raises privacy concerns. Corporate policies must consider legalities such as electronic signatures, electronic contracts, and conditions for sending SMS messages. Advertisers should have permission and convince consumers to ''opt-in'' before sending advertisements. A simple registration ensures sending relevant messages to an interested audience.

Unsolicited messages, Unwanted messages are illegal in some countries and annoy consumers regardless of the medium (e.g., fax, telephone, electronic mail, or mobile devices). Unwanted messages may work as the strongest negative influence on consumer attitudes towards SMS advertising

CONCLUSION

The objective of this study was to investigate the influence of mobile marketing as a communication tool on generating consumer purchase intention and to ensure consumers attitude towards such strategies. The findings of this empirical study show that all the formulated hypotheses were in the same direction as was hypothesized in the study. It seems that consumers who were subjected to extensive advertising reacted negatively towards mobile marketing advertising and consequently had less intention to participate in permission-based advertising programs. There is also perception of respondents that mobile marketing is time consuming, relayed at wrong time and forms a clutter .There is also no impact of past experience and effectiveness of mobile marketing in purchasing decision.

It also appears to be a positive relationship between perceived usefulness and intention to participate, as consumers who believed that SMS advertising messages were useful and relevant to their interests expressed more readiness to participate in such programs.

However, there appeared to be a negative relationship between personal use and past reaction i.e. consumers who had negative attitudes towards direct advertisings were less inclined to receive wireless advertising messages. Moreover, consumers who were less likely to have intent to participate in a permission based advertising programs had the belief that mobile was for personal use.

As far as trust is concerned, there appeared to be a negative relationship between past reactions and trust i.e. consumers who expressed negative attitudes toward direct marketing were less likely to share their personal information via SMS advertising messages. Lastly, there appears to be a negative relationship between extensive advertising and trust i.e. consumers who were subjected to extensive advertising pointed out that they were less likely to trust firms using SMS advertising. Permission marketing requires the consumer to participate in the programme by giving the permission and the information for continuing the relationship. The interest in this participation arises from the balance of benefits (message relevance and monetary benefits) and costs (personal information, message processing costs, privacy costs) for consumers.

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APPENDIX

TABLE 1: INDEPENDENT SAMPLE T TEST

		t-test for Equality of Means				
		t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Perception	Equal variances assumed	.260	133	.795	.22002	.84672
	Equal variances not assumed	.247	81.154	.806	.22002	.89254

TABLE 2: INDEPENDENT SAMPLE T TEST

		t-test for Equality of Means				
		t	Df	Sig.(2-ailed)	Mean Difference	Std. Error Difference
Response To Mobile Marketing	Equal variances assumed	-.047	133	.963	-.02430	.52158
	Equal variances not assumed	-.046	123.428	.963	-.02430	.52653

TABLE 3: ONE WAY ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	52.816	3	17.605	1.988	.119
Within Groups	1160.221	131	8.857		
Total	1213.037	134			

TABLE 4: CHI SQUARE TEST

	Response to mobile marketing	effectiveness of mobile marketing	experience made on purchases through mobile marketing
Chi-Square(a,b)	68.667	47.111	12.667
Df	14	4	4
Asymp. Sig.	.000	.000	.013

TABLE 5: ONE WAY ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	75.378	4	18.844	2.153	.078
Within Groups	1137.660	130	8.751		
Total	1213.037	134			

A STUDY ON LEADERSHIP STYLE AND THEIR IMPACT IN PUBLIC SECTOR – TAMIL NADU

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ABSTRACT
As many authors narrated about the leaders and leadership "that leader are born" and each of them have different styles. Even if don't feel like leaders were born with a particular propensity to lead, leaders can still develop an effective leadership style through dedication and determination. This Study used to examine the impact of leadership style in public sector, whether the leaders are using Authoritarian Style or Participative Style or Delegative Style. And also to know how highly the executives are concerned either the people or task. Questionnaires have been used to collect the data. Questionnaires consist of 35 questions with 5 point scale. The final destination of the result indulge that most of the leaders are using the authoritarian style to bestow a high productivity. The foremost conclusion of this research brought that leaders and their style are meant for individual concern it has been not forced by anyone to used only authoritarian or participative but everything is depends on person an situation.

KEYWORDS
Authoritarian, delegate, leaders, leadership style, participative.

INTRODUCTION
The real leader has no need to lead— He is content to point the way" **Henry Miler**
"Management is doing things right; Leadership is doing the right things" **Peter F. Drucker**
A leader is a person who influences a group of people towards the achievement of a goal while leadership is the art of motivating a group of people to act towards achieving a common goal. Different leadership style will result in different impact to organization. The leader has to choose the most effective approach of leadership style depending on situation because leadership style is crucial for a team success. By understanding these leadership styles and their impact, everyone can become a more flexible and better leader.

As the early researchers ran out of steam in their search for traits, they turned to what leaders did - how they behaved (especially towards followers). They moved from leaders to leadership - and this became the dominant way of approaching leadership within organizations in the 1950s and early 1960s. Different patterns of behaviour were grouped together and labelled as styles. This became a very popular activity within management training – perhaps the best known being Blake and Mouton's Managerial Grid (1964; 1978). Various schemes appeared, designed to diagnose and develop people's style of working. Despite different names, the basic ideas were very similar. The four main styles that appear are:

- **Concern for task:** Here leaders emphasize the achievement of concrete objectives. They look for high levels of productivity, and ways to organize people and activities in order to meet those objectives.
- **Concern for people**: In this style, leaders look upon their followers as people - their needs, interests, problems, development and so on. They are not simply units of production or means to an end.

This study is used to identify the impact of three leadership style. The leadership styles studies are: Autocratic leadership style, shared leadership style and Laissez –Faire Leadership style. The impact variables of this study include whether the leadership style results the task concern or the people concern which leads to level of productivity and morale.

REVIEW OF LITERATURE
Leadership Definition: Peter Drucker: The forward to the Drucker Foundation's "The Leader of the Future" sums up leadership: "The only definition of a leader is someone who has followers." To gain followers requires influence (see John Mawell's definition below) but doesn't exclude the lack of integrity in achieving this. Indeed, it can be argued that several of the world's greatest leaders have lacked integrity and have adopted values that would not be shared by many people today.

Leadership Definition: John C Maxwell: In the 21 Irrefutable Laws of Leadership, John Maxwell sums up his definition of leadership as "leadership is influence - nothing more, nothing less." This moves beyond the position defining the leader, to looking at the ability of the leader to influence others - both those who would consider themselves followers, and those outside that circle. Indirectly, it also builds in leadership character, since without maintaining integrity and trustworthiness, the capability to influence will disappear.

Often, we find two of these styles present in books and training materials. For example, concern for task is set against concern for people (after Blake and Mouton 1964); and directive is contrasted with participative leadership (for example, McGregor's [1960] portrayal of managers as 'Theory X' or 'Theory Y'). If you have been on a teamwork or leadership development course then it is likely you will have come across some variant of this in an exercise or discussion.

Many of the early writers that looked to participative and people-centered leadership argued that it brought about greater satisfaction amongst followers (subordinates). However, as Sadler (1997) reports, when researchers really got to work on this it didn't seem to stand up. There were lots of differences and inconsistencies between studies. It was difficult to say style of leadership was significant in enabling one group to work better than another. Perhaps the main problem, though, was one shared with those who looked for traits (Wright 1996: 47). The researchers did not look properly at the context or setting in which the style was used. Is it possible that the same style would work as well in a gang or group of friends, and in a hospital emergency room? The styles that leaders can adopt are far more affected by those they are working with, and the environment they are operating within, than had been originally thought

Contemporary leadership theory since 1970s---The viewpoint of contemporary leadership theory states that leadership is a type of interactive process with the environment. Bass & Avolio (1990) proposed transactional leadership and transformation leadership :(1)transactional leadership---encouraging subordinates through incentive establishment. In other words, incentive elicits work performance. Transactional leadership is the basis for most leadership theories. It focuses on the exchange relationship between the leader and the subordinate (Fry, 2003； Northouse, 2001); (2) transformation leadership---to enhance staff's trust and respect for leader by altering intrinsic work value and faith of staff at the same time in order to elicit work capabilities. Because "charisma" is viewed as an essential element, transformation leader provides incentives for subordinates, enhance subordinate potential and development. (Fry, 2003); and (3) Charismatic leadership theory refers to the follower's perception toward certain behaviors of the leader as being heroic or extraordinary.

In recognition of this, in 2007 Korn/Ferry International partnered with International Management Assessment (IMA) India to conduct assessments of 100 C-level Indian executives. It reveals that, Indian leaders are more directive and hierarchical than their Western counterparts, and less concerned about appearing open to the input of others and building consensus. While this may be effective in an Indian business context, such a leadership style could backfire with international management teams who may need to feel a stronger sense of empowerment to stay motivated and productive.

Nurturant: Task Leadership model (Sinha 1980). According to his model ideal leader is both nurturant and task oriented. This dimension of leadership is revealed in leaders taking care of their subordinate being considerate and affectionate.

According to one study, over time, the leader will develop an "in-group" of subordinates and "out-group" of subordinates and treat them accordingly. Thus, for the same leader, research has shown that in-group subordinates report few difficulties in dealing with the leader and perceive the leader, as being more responsive to their needs and out-group subordinates do. (Dansereau F., Jr. G. Graen, and W.J.Haga, 1975)

METHODOLOGY

The primary objective of the study is to find out the leadership styles followed by the executives of the public companies. And to analysis the morale and productivity with respect to their styles and to identify the style concerned for task and for people. Also this study used to suggest, how to motivate the employee's more.

This study was comprised of employees of public sectors. The primary data and secondary data were collected and analyzed the same by using percentage analysis; Chi-square, ANOVA and a scoring methodology have been adopted to find out the different style referred by the executives. The questionnaire was of multiple choice types and Likert scale. The secondary data have been collected from the articles, journals and reference books related to public sectors

ANALYSIS AND DISCUSSION

The analysis reveals that the age and gender doesn't have any influence over the leadership style. When consider with style and educational qualification it has been conformed that there is relationship between education qualifications. From the procedure used in the questionnaires it has been found that most of the executives preferred the Autocratic leadership style more than the other two (democratic and laissez faire). Hence most of the executives are concern with task. Among the 300 executives, most of the executives (210) gave high importance for the autocratic leadership style, leader gives instructions regarding the task or tasks to be accomplished and how they should be accomplished(more task oriented). And (144 and 150) are utilizing shared leadership style at high and medium, which shows one of the best leadership which provide and be in group work, therefore concentrate both on task and people oriented. A very minimum of (78) executive has high Laissez faire that gives little guidance and poorly defined roles and lack of motivation to the group and then they give little or no guidance. This exemplify that the leader allows the people he or she is leading to make their own decisions regarding tasks to be accomplished.

Leadership Style	High	Medium	Low
Autocratic Leadership	210	84	6
Shared Leadership	144	150	6
Laissez-Faire Leadership	78	186	36

Procedure of the analysis: Two dimensions had taken into account; one was score on the concern for task dimension (T) on the left-hand side. Next, move to the right-hand side on the concern for people dimension (P). A straight line has been drawn that intersects the P and T scores. The point at which the line crosses the shared leadership section indicates the score on the dimension

As per the following procedure take for this analysis, it has been divulge the following results.

Leadership Style	High	Medium	Low
Autocratic Leadership	Task Concerned	Task Concerned	Task Concerned
Shared Leadership	Both Task & People Concerned	Both Task & People Concerned	Both Task & People Concerned
Laissez-Faire Leadership	People Concerned	People Concerned	People Concerned

- Autocratic leadership style scores high that is 210 of the respondents are propounded as they are using autocratic style which lies on high than the other two medium and low. Therefore they are highly focused on task concerned.
- Shared leadership style scores medium and high that are 150 and 144 of the respondents are preferred as they are using share leadership style at medium and high. Therefore they are medium and high focused on both task concerned and people concerned.
- Laissez-Faire leadership style scores medium that is 186 respondents are preferred as they are using laissez-Faire leadership style at medium level. Therefore they are medium focused on people concerned.

ANOVA

Age, educational qualification and experience with respect to Autocratic style.

		Sum of Squares	df	Mean Square	F	Sig.
AGE	Between Groups	2.109	2	1.054	1.149	.318
	Within Groups	272.571	297	.918		
	Total	274.680	299			
EDUCATIONAL QUALIFICATION	Between Groups	17.314	2	8.657	27.445	.000
	Within Groups	93.686	297	.315		
	Total	111.000	299			
EXPERIENCE	Between Groups	1.491	2	.746	.498	.608
	Within Groups	445.029	297	1.498		
	Total	446.520	299			

Age, educational qualification and experience with respect to Shared style.

		Sum of Squares	df	Mean Square	F	Sig.
AGE	Between Groups	17.440	2	8.720	10.068	.000
	Within Groups	257.240	297	.866		
	Total	274.680	299			
EDUCATIONAL QUALIFICATION	Between Groups	10.360	2	5.180	15.287	.000
	Within Groups	100.640	297	.339		
	Total	111.000	299			
EXPERIENCE	Between Groups	17.080	2	8.540	5.906	.003
	Within Groups	429.440	297	1.446		
	Total	446.520	299			

Age, educational qualification and experience with respect to Laissez-Faire style.

		Sum of Squares	df	Mean Square	F	Sig.
AGE	Between Groups	16.606	2	8.303	9.555	.000
	Within Groups	258.074	297	.869		
	Total	274.680	299			
EDUCATIONAL QUALIFICATION	Between Groups	10.573	2	5.287	15.634	.000
	Within Groups	100.427	297	.338		
	Total	111.000	299			
EXPERIENCE	Between Groups	5.768	2	2.884	1.943	.145
	Within Groups	440.752	297	1.484		
	Total	446.520	299			

It is identified that there is relation between the Leadership style with respect to age and experience and there is no relation with the educational qualification.

SUGGESTIONS

As it is identified in behavioral leadership theory, University of Michigan study group came up with two dimensions of leadership behavior that they labeled employee-oriented – emphasizing interpersonal relations and production-oriented – emphasizes technical or tasks aspects of the job. And Managerial Grid based on the styles of "concern for people" and "concern for production" which essentially represent the Ohio State dimensions of consideration and initiating structure or Michigan dimensions.

This study disclose that the leadership used by the executives are autocratic Which stress more on high productivity as the style of the leadership are too high at the same time some of the executives given more importance for high productivity and high morale as they lie on shared leadership style. Thus most of the executives are balancing with concerned on task than with people. And remaining is relay on people rather than task. From this research, it has been identified, based on nature of job the executives are adopted with suitable leadership style. It also depends upon the situation too.

CONCLUSION

The final result of this study divulge that, age and gender doesn't have any influence over the leadership style but education of the executives having weight over the style. In cumulative most of the executives of the public sector utilizing the autocratic leadership style more than the rest of two ie., Shared leadership and Laissez-Faire Leadership. Therefore these executives in Tamil Nadu concerning more on task oriented. So the work can be exploited correctly from the worker only when they preferring autocratic style rather than other two. Many study evidence suggest that, in spite of all the attention that consultant, academics, and the media have given to the new workplace and the changing role of manager from boss to coach or advisor, it appears that many managers continue to rely on an autocratic style of leadership.

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PARAMETERS OF RATING OF INDIAN COMMERCIAL BANKS – A CRITICAL ANALYSIS

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ABSTRACT
Ranking is a universally accepted benchmark of performance, given by an independent third party after objective analysis of commercial banks. There are many national and international rating agencies that give rankings to commercial banks. However the parameters used for ranking differ from one rating agency to the other. In this paper a comparative analysis has been carried out among the parameters used by various rating agencies. The comparative analysis has revealed that the parameters are based on the broad categories of CAMEL framework. However, there are differences in the use of parameters within these broad categories. The most commonly used parameters have been highlighted.

KEYWORDS
Banking, India, Commercial Banks, Rating Agencies.

INTRODUCTION
Rating provides a universally accepted benchmark of performance by independent and objective analysis. Ratings are usually considered to be unbiased, as are given by independent rating agencies. The idea behind publishing ratings is to provide an opportunity to benchmark once performance with its competitors and peers (Toprankingsindia 2007). The rating agencies evaluate various companies on the basis of parameters. However the parameters differ from one rating agency to another. Such as, Standard & Poor rate the banks on the basis of economic risk, industry risk, corporate structure, management structure, accounting & financial reporting, credit risk & its management, liquidity, capital, earnings, profitability, asset composition and asset quality of the banks. On the other hand, Moody rates the banks on the basis of capital, asset quality, earnings, liquidity, market leadership, risk management, ownership structure and so on. The parameters can be statistical parameters like capital adequacy, liquidity, profitability etc. or non-statistical parameters like management capability, ownership structure, and concentration of risk.
A review of literature has been carried out to understand the rating parameters of commercial banks.

LITERATURE REVIEW
It is found that there are many research agencies which give ratings to the commercial banks. The rating parameters of some of the rating agencies have been discussed in this section.
Fitch rating (2004) has emphasized that to rate a bank one needs to understand the business of the bank, the risks inherent to the business, the objectives of its management, the environment it operates in and the most likely future development of its business. Fitch has based its analysis on a number of quantitative and qualitative factors. The major criteria for rating are Risk management, Funding and liquidity, Capitalization, Earnings and performance, Market environment, Diversification of business and franchise, Management & strategy and Corporate governance.
Unlike the Fitch rating, Moody (2007) focuses more on statistical factors for ranking. The statistical parameters are Capital, Asset quality, Earnings and Liquidity. In respect of Earnings, Moody has considered pre-provision pre-tax income to be the most relevant factor. It has used 'pre-provision income minus preferred dividends minus consumer net charges offs to risk weighted assets plus securitized assets', 'return on risk weighted assets plus securitized assets', 'non interest expenses to net interest income plus non-interest income' and 'net interest margin' ratios for analysis of earnings of commercial banks. For the assessment of asset quality, it has used 'non-performing assets to tangible common equity plus loan loss reserves', 'non performing assets to pre provision profits and provisions to pre provision profits' ratios. The capital adequacy parameter has been evaluated by 'tangible common equity to risk weighted assets plus securitized assets' ratio and for liquidity position it has taken 'net cash capital position at bank level', 'core deposits to loans', 'net short term position at bank holding company level' and 'double leverage ratio'. Moody considers that size of the bank is an important parameter of ranking. The size has been assessed by total assets size. Similar to the Fitch ratings, Moody has stated that the non statistical factors play a key role in determining ratings. The non statistical parameters examined are market leadership in lines of business, risk appetite, monitoring and control, management's reaction to shareholder pressure for earnings per share growth and ownership structure.
Standard & Poor (2007) have emphasized that both quantitative and qualitative parameters are important for rating of banks. Under quantitative parameters Profitability, Asset quality, Liquidity and Capital are the major parameters. The Profitability has been estimated by revenues, net interest income, non interest income, non interest expenses, net operating income before loan loss provisions, net operating income after loan loss provision, loan loss provisions, pretax profits and net income with relation to average assets, risk adjusted assets and revenue. The liquidity has been estimated by the 'total deposit to total liabilities', 'loans to customer (core) deposits', 'loans to assets' and 'net inter-bank deposits to total liabilities' ratios. The capital adequacy is estimated by 'adjusted common equity to assets', 'adjusted common equity to risk assets', 'adjusted common equity to loans', 'double leverage (parent company equity investments in subsidiaries divided by total consolidated shareholders' equity)', 'equity plus loans loss reserves to loans', 'tier I equity to regulatory risk assets', 'adjusted total equity to assets', 'adjusted total equity to regulatory risk assets' and 'dividend payout ratio'. In respect of asset quality the parameters are 'loan loss provision to average loans', 'net charge-offs to average loans', 'loan loss reserve to gross loans', 'loans loss reserve to risk assets', 'net npa to net loans' and 'loans loss reserve to NPA'. The non statistical parameters taken by standard & poor are ownership structure of banks, bank's market shares in key businesses, diversification of business, capability of management team and its strategy, the accounting principles used, and differences from United State's Generally Accepted Accounting Principles.
Besides the ranking parameters of international rating agencies, some Indian rating agencies have also been studied. The Business India (2004) has ranked the commercial banks on the basis of Capital adequacy, Resources Deployed, Asset quality, Management, Earnings quality and Liquidity. Business Standard Research Bureau (BSRB) (2004) for has ranked the banks on the basis of five broad indicators- Profitability, Safety, Productivity, Efficiency and Growth. For ranking of banks, the Business Today- KPMG (BT-KPMG) (2007) has divided the parameters into three broad categories- Growth, Size and Strength. Each category has a set of parameters making total twenty-six parameters. Business World (BW) (2006) has divided the ranking parameters of banks into six broad groups namely, Profitability, Efficiency, Safety, Size, Valuation and Growth. Financial Express – Ernst &Young (FE&EY) (2007) have taken five major categories of parameters namely Strength and Soundness, Growth, Profitability, Efficiency/Productivity and Credit quality. Six sub-criterions have been taken within each of the major criteria. Top Rankings India (2006) has ranked the banks on thirty-four parameters. These thirty-four parameters have been put under five functional categories: Operational parameters, Profitability parameters, Credit efficiency parameters, Per-rupee parameters and Productivity parameters. Indian Banks Association (2006) publishes group-wise information on major performance indicators of scheduled commercial banks. The key performance indicators for public sector banks and private sector banks are as Total Assets, Deposits, Investments, Advances, Non-Performing Assets (Gross and Net), Interest Income, Other Income,

Total Income, Interest Expenditure, Operating Expenditure, Total Expenditure, Operating Profit, Provisions and Contingencies, Net Profit, Credit-Deposit Ratio, Investment-Deposit Ratio, Spread to Total Assets, Operating expenses to total expenses, Return on Assets, Capital Adequacy Ratio, Net NPA to Net Advances, Business and Profit per employee .

The Reserve Bank of India has used six key parameters for rating of Indian banks. These are called CAMELS rating parameters, where C stands for Capital Adequacy, A stands for Asset Quality, M stands for Management, E stands for Earnings performance, L stands for Liquidity and S stands for Systems. The key parameters under the CAMEL rating parameters are capital to total assets, capital minus estimated losses to total assets, delinquent loans to total loan, net charge offs to average loan, non earning assets to total assets, operating expenses minus provisions for loan losses and interest expenses to average assets, net income before statutory reserve transfers to average assets and net income after transfers to average assets.

From the review of literature it emerges that there are large different parameters used by different rating agencies. The objective of this paper is to carry out a comparative analysis of parameters employed by different rating agencies and to critically analyze the parameters.

COMPARATIVE ANALYSIS OF PARAMETERS

A comparative analysis of parameters has been carried out as shown in Table 3.1 to Table 3.7. The frequencies of parameters have also been calculated in the tables.

It could be observed from the comparative analysis that for capital adequacy the Capital Adequacy Ratio i.e. Capital to risk weighted assets ratio is the most commonly used ratio. The Reserve Bank of India has used its alternative 'capital minus estimated losses to total assets' ratio which shows a more appropriate picture of capital adequacy after deduction of estimated losses. The S&P has used 'adjusted total equity to assets ratio' along with the capital adequacy ratio. S&P's 'equity plus loan loss reserves to loan' ratio is also a slight modification of the capital adequacy ratio since in numerator it takes capital and in the denominator it has the loan which is the major asset for commercial banks. The debt equity ratio taken by Business India and S&P shows the leverage position of the bank. However since banks are in the business of borrowing and lending, the debt equity ratio of banks might not reveal much about the capital adequacy. 'Double leverage' ratio has been used by Moody and S&P. The 'Tier I equity to regulatory risk assets' ratio has been used by only S&P. The 'dividend payout ratio' has also been used by the S&P for capital adequacy.

Regarding the asset quality it has been observed that 'net NPA to net advances' is the most frequently used parameter. However Business India has not used this parameter and in place it has used parameters that are related to investments. Moody has used three different parameters 'net NPA to total assets', 'NPA to pre provision profits' and 'provisions to pre provision profits'. These three parameters present effect of NPAs on the assets and the profits of the bank. Hence these parameters are the leading indicators of asset quality while 'net NPA to net advances' is a lagging indicator because it presents the past picture and nothing about the future. The three parameters used by the Reserve Bank of India namely, 'delinquent loans to total loans', 'non earning assets to total assets' and 'net charge offs to average assets' are also leading indicators of asset quality. The parameters used by BSRB, BT-KPMG, BW and FE&EY are all lagging indicators because they present only the past position of NPAs. Business India has taken only the investments related parameters.

For the analysis of the management quality 'operating profit per employee' is the most frequently used parameter. However Fitch ratings, Moody and S&P have used some non statistical parameters for analysis of management quality and management strategy. Business India, BSRB, BT-KPMG, BW and FE&EY have used total income per branch and per employee and business per employee and per branch parameters.

For analysis of earnings 'return on assets', 'return on equity' and 'net profit margin' are with the highest frequency. The other frequently used parameters are 'net profit margin', 'net interest income to average assets', 'net interest margin', 'spread to assets', 'non interest expense to total income' and 'cost to average assets ratio'. BSRB has used 'staff expenses to operating expenses ratio' which shows the expenditure on employees. Huge number of employees has been a major problem of public sector banks. BSRB and BT-KPMG have used 'non interest income to gross income' which indicates the fee based income earned by the bank. Fee based income is a more stable and less risky kind of income for banks. The Fitch Rating examines earnings and performance of banks on the basis of the historical trend of a bank's earnings performance, the stability and quality of earnings and its capacity to generate profits, earnings for each of the bank's business lines, Net interest income, Non-interest income, Non-interest expenses and Provisioning levels. S&P have taken 'net profit before loan loss provisions' and 'net profit after loan loss provisions' which show the profitability after provisioning for NPAs. It shows the amount of earnings blocked into the provisions. The net income has been further analyzed as interest income and non interest income.

It has been found that the 'credit-deposit ratio' is the most frequently used parameter of liquidity. This ratio indicates the amount of money landed as compared to the deposits with the bank. A very high ratio would indicate a difficult liquidity position. The other two common parameters are 'liquid assets to total assets' and 'borrowings to deposits' ratio. Liquid assets to total assets ratio shows the actual liquidity position of the bank and borrowings to deposits ratio shows the amount of deposits financed by the borrowings. BSRB has taken demand and savings deposits to total deposits ratio because demand and saving deposits are most important from liquidity point of view. Higher the amount of these two kinds of deposits, higher is the requirement of liquidity. S&P have taken 'total deposits to total liabilities' ratio for liquidity which shows the portion of deposits out of total liabilities. Higher this ratio, higher would be the requirement of the liquid assets. S&P has also taken 'net inter bank deposits to total liabilities' ratio which shows the amount of inter bank deposits out of total liabilities. A high amount of inter bank deposits would indicate a lesser liquidity risk. The Business India has used the asset liability mismatch technique for assessment of liquidity risk.

Business India, BSRB, BT-KPMG, BW, FE-E&Y, Moody and Indian banks Association have used certain absolute parameters for measurement of size of the operations. The most frequently used parameter is Total assets. BSRB, BT-KPMG and FE-E&Y have used some growth parameters like advances growth, investments growth, deposits growth and net profit growth.

FINDINGS

Comparative analysis of parameters in the above section reveals that there are following points which need attention in selection of parameters:

- The emergence of retail as the business of the future has necessitated almost a complete review of the way Indian banks have traditionally been evaluated. Specific segments such as retail assets, fee-based services and delivery channels require to be managed with an active strategy for 'customer acquisition' and 'customer retention'. These strategies require measurement in a manner that extends beyond CAMEL and stand-alone non-financial measures.
- Banks are basically leveraged institutions and leverage increases the volatility of asset depreciation. So earnings are the primary line of defense against losses. There is a need to focus on well diversified income stream. Earnings from non-fund based services like credit guarantees, L/Cs, cash management, logistics management, tax collection etc. are more permanent and involve less amount of credit and market risk. On the other hand, for earning interest income and treasury income bank has to bear credit risk and market risk respectively.
- Besides, increasing the revenue another way to increase profit margins is, to reduce the cost of operations. A major chunk of operating cost in Public Sector Banks is the staff cost, also called establishment cost. Its significance in performance of a bank has also been recognized by RBI in its Report on Restructuring of Weak Banks, Oct 1999. But the breakup analysis of operating cost is not considered in most of ratings.
- In the above ratings non-performing assets have largely been taken in comparison with total assets or net advances. It reveals a post-mortem picture. It is required to measure the chances of future increase in NPAs. So instead of NPA ratios, the loan segmentation by industry sector and by large relationship or by individual loan exposures would be better predictors of future asset quality problems. The rating should also try to anticipate the increase in future credit expenses (i.e. provisions and expenses related to recovery) with declining loan quality or vice-versa.
- Another important factor in the analysis of asset quality is credit risk concentration. Credit risk concentration is measured by relating a volatile loan category to capital. It should be tried to ascertain what would happen to core earnings (and possibly to capital) if a bank needed to write-off several of its largest loans.

- As noted in most of the ratings, absolute size is not a direct driver of the rank. However, it is found that size is often correlated with other, more qualitative factors that are important to our ratings. For example, size can be correlated with business diversification, broader geographical reach, reduced concentration risk, economies of scale etc. hence, though not heavily weighted, it should be incorporated in ratings.
- For a commercial bank maintenance of liquidity is as important as its profitability. Liquidity risk can be measured from maturity mismatch of assets and liabilities. It is managed by Asset Liability Management Committee (ALCO) through ALM techniques. This has not been considered in most of the ratings.
- To implement Basel II norms, banks need to have a strong framework for credit risk and operational risk management. Hence, banks initiatives towards risk management should be given due consideration in its rating.
- As we proceed with liberalization in the insurance and pension sectors our banks will face more competition from non-bank financial intermediation. In such an environment product innovation is going to become the strategy for survival and growth for mid and small size banks. Product innovation could be an important parameter.
- Use of information technology is no longer a choice for the banks, it has become a necessity. But early and effective deployment of technology as a strategic resource will be a competitive advantage resulting into high speed, efficiency, cost reduction, risk management and customer service. So implementation of high-tech banking software must definitely add a weight to the rank of the bank.
- Moreover, there are various other qualitative criteria which need to be quantified to take part in ranking of banks. For example, customer satisfaction, risk appetite, market sensitivity, ownership structure, corporate governance, location advantage/ disadvantage, auditor's comments, performance of subsidiaries and linking of performance with strategic objectives etc. Without incorporating these parameters ranking will not serve its purpose completely.

CONCLUSION

From the above analysis it could be concluded that broadly the parameters are based on the CAMEL framework. However, there are differences in the use of parameters within these broad categories. For capital adequacy 'capital to risk weighted assets ratio' is the most appropriate parameter. For asset quality 'net NPA to net advances', 'net NPA to total assets', 'NPA to pre provision profits' and 'provisions to pre provision profits are the useful parameters. The Management quality has been commonly measured by the 'operating income per employee' however the management quality could be best assessed by non statistical parameters like organizational structure, dependence of management team on one or more persons, coherence of the team, corporate governance and independence of management from major shareholders. 'Earnings' is a major parameter for banks and it can be assessed by Net profit margin, Return on assets and Return on equity. Individual analysis of interest income, non interest income and investments is also helpful. Further the evaluation of earnings would be incomplete without evaluation of costs of the bank Hence cost to income ratio is important. Liquidity can be evaluated by credit deposit ratio, Liquid assets to total assets ratio, Borrowings to deposits ratio, Loans to assets ratio and Asset liability mismatch. Asset liability mismatch is a very good indicator of interest rate risk also. Moreover besides the above CAMEL parameters, size of the bank operations and growth of the bank are important parameter for evaluation.

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TABLES

Table 3.1
CAPITAL ADEQUACY PARAMETERS

S.No.	Parameters	Business India	Business Standard Research Bureau	Business Today-KPMG	Business World	Financial Express-Ernst &Young	Top India's Ranking	Fitch Rating	Moody	Standard & Poor	Indian Banks Association	Reserve Bank of India	*Frequency*
1	Capital adequacy ratio	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
2	Capital -estimated losses to total assets											✓	1
3	Adjusted total equity/assets									✓			1
4	Debt equity ratio	✓								✓			2
5	Double leverage								✓	✓			2
6	Equity+loan loss reserves/ loans									✓			1
7	Tier I equity/regulatory risk assets									✓			1
8	Dividend payout ratio									✓			1

Table 3.2
ASSET QUALITY PARAMETERS

S.No.	Parameters	Business India	Business Standard Research Bureau	Business Today-KPMG	Business World	Financial Express-Ernst &Young	Top India's Ranking	Fitch Rating	Moody	Standard & Poor	Indian Banks Association	Reserve Bank of India	*Frequency*
1	G-secs to investments	✓											1
2	G-secs to assets	✓											1
3	Investments to assets	✓											1
4	Increase in Gross NPA					✓							1
5	Increase in gross NPA to increase in gross advances					✓							1
6	Gross NPA to gross advances			✓		✓							2
7	Delinquent loans to total loans											✓	1
8	Non earning assets to total assets											✓	1
9	Increase in net NPA to increase in net advances					✓							1
10	Net NPA to total assets		✓			✓			✓				3
11	Net NPA to Net worth					✓							1
12	Net NPA to net advances		✓	✓	✓		✓			✓	✓		6
13	NPA to preprovision profits								✓				1
14	Provisions to pre provisions profits								✓				1
15	Loan Loss Provisions to average loans									✓			1
16	Loan loss reserves to gross loans									✓			1
17	Loan loss reserves to risk assets									✓			1
18	Loan loss reserves to NPA			✓						✓			2
19	Loan Loss Provisions to average assets									✓			1
20	Loan Loss Provisions to revenue									✓			1
21	Net charge offs to average loans											✓	1

Table 3.3

MANAGEMENT PARAMETERS

S.No.	Parameters	Business India	Business Standard Research Bureau	Business Today-KPMG	Business World	Financial Express-Ernst &Young	Top India's Ranking	Fitch Rating	Moody	Standard & Poor	Indian Banks Association	Reserve Bank of India	Frequency
1	Total income per branch		✓										1
2	Total income per employee		✓										1
3	Operating profit per employee	✓	✓	✓	✓	✓	✓				✓		7
4	Business per employee					✓	✓				✓		3
5	Business per branch						✓						1

Table 3.4
EARNINGS PARAMETERS

S.No.	Parameters	Business India	Business Standard Research Bureau	Business Today-KPMG	Business World	Financial Express-Ernst &Young	Top India's Ranking	Fitch Rating	Moody	Standard & Poor	Indian Banks Association	Reserve Bank of India	Frequency
1	Return on assets		✓	✓	✓	✓			✓	✓	✓		7
2	Return on equity	✓	✓	✓		✓	✓						5
3	Net profit to spread		✓										1
4	Net profit margin (net profit to total income)		✓		✓					✓			3
5	Net profit to deposits		✓										1
6	Net profit to total average assets	✓					✓						2
7	Net operating income before LLP to avg assets						✓			✓			2
8	Pretax profits to average assets									✓			1
9	Net operating income before LLP to revenue									✓			1
10	Net operating income after LLP to revenue									✓			1
11	Pretax profit to revenue									✓			1
12	Net income to revenue									✓			1
13	(Pre-provision income-preferred dividends-consumer net charges offs) to risk weighted assets + securitized assets								✓				1
14	Net income after transfers to average assets											✓	1
15	Net income before statutory reserve transfers to average assets											✓	1
16	Non interest income to gross income		✓	✓									2
17	Non interest income to revenue									✓			1
18	Non interest income to average assets						✓			✓			2
19	Commission and fee to total assets					✓							1
20	Other income to net interest income	✓											1
21	Net interest income to avg earning assets									✓			1
22	Net interest income to average assets			✓			✓			✓			3
23	Net interest income to revenue									✓			1
24	Net interest margin				✓		✓		✓				3
25	Yield on investments		✓										1
26	Yield on advances		✓			✓							2
27	Spread to assets	✓	✓								✓		3
28	Spread over establishment expenses		✓										1
29	Non interest expenses to total income						✓		✓	✓			3
30	Staff expenses to operating expenses		✓										1
31	Cost to average assets ratio		✓	✓		✓							3
32	Cost to income ratio			✓		✓							2
33	Operating expenses-Provisions for loan losses-Interest expenses to average assets											✓	1
34	Operating expenses to total assets					✓					✓		2
35	Spread to total assets					✓							1

Table 3.5

LIQUIDITY PARAMETERS

S.No.	Parameters	Business India	Business Standard Research	Business Today-KPMG	Business World	Financial Express-Ernst	Top India's Ranking	Fitch Rating	Moody	Standard & Poor	Indian Banks Association	Reserve Bank of India	*Frequency*
1	Liquid assets to total assets	✓	✓										2
2	Credit deposit ratio	✓	✓			✓	✓		✓	✓	✓		7
3	Demand & savings deposits to total deposits		✓										1
4	Borrowings to deposits		✓			✓							2
5	Total deposits to total liabilitites									✓			1
6	Loans to assets									✓			1
7	Asset liability mismatch	✓											1
8	Net interbank deposits to total liabilitites									✓			1

Table 3.6

SIZE PARAMETERS

S.No.	Parameters	Business India	Business Standard Research Bureau	Business Today-KPMG	Business World	Financial Express-Ernst &Young	Top India's Ranking	Fitch Rating	Moody	Standard & Poor	Indian Banks Association	Reserve Bank of India	*Frequency*
1	Total assets	✓		✓	✓	✓			✓		✓		6
2	Liquid assets	✓											1
3	Investments	✓				✓					✓		3
4	Advances	✓											1
5	Fixed assets and Other assets	✓									✓		2
6	Net interest income				✓								1
7	Net profit				✓								1

Table 3.7

GROWTH PARAMETERS

S.No.	Parameters	Business India	Business Standard Research Bureau	Business Today-KPMG	Business World	Financial Express-Ernst &Young	Top India's Ranking	Fitch Rating	Moody	Standard & Poor	Indian Banks Association	Reserve Bank of India	*Frequency*
1	Increase in total assets					✓							1
2	Advance growth		✓	✓		✓							3
3	Investments growth		✓			✓							2
4	Deposits growth		✓	✓		✓							3
5	Commission fee growth		✓	✓									2
6	Net profit growth		✓	✓		✓							3
7	Increase in market share of deposits			✓									1
8	Increase in market share of current account and savings account ratio			✓									1
9	Price/earnings ratio				✓								1
10	Price to book value				✓								1
11	Book value per rupee of equity capital						✓						1
12	Earnings per rupee of equity capital						✓						1
13	EPS growth	✓											1

IMPACT OF INTERNET BANKING ON CUSTOMER SATISFACTION: A COMPARATIVE STUDY OF PUBLIC SECTOR BANKS, PRIVATE SECTOR BANKS AND FOREIGN SECTOR BANKS

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ABSTRACT
Customer satisfaction is very essential in the age of globalization and cutthroat competition when the technology is developing with high pace and customers' expectations are rising. The purpose of this study is to identify the customers' preferences towards Internet banking and to analyze their satisfaction level due to Internet banking. It has also been tried to find the relationship between various demographic variables and satisfaction level of customers. The paper presents the analysis of 225 Internet banking customers of three sectors of banks i.e. public sector, private sector and foreign sector banks of Jalandhar City. In case of public sector bank, State Bank of India (SBI), for private sector bank, Industrial Credit and Investment Corporation of India (ICICI) bank and for foreign sector bank, Standard Chartered banks (SCB) have been taken for study. The Percentages, frequencies and chi-square test has been applied for analysis to explore the results of the survey. The cross tabulations have also been done. Charts have also been prepared to depict data. It has been found that the choice of bank is independent of age and occupation. In all the three categories of banks, 72% to 80% respondents are satisfied with the Internet banking service of their respective banks.

KEYWORDS
Customer Satisfaction, Service Quality.

INTRODUCTION
Indian banking sector is developing at an astounding rate. As per Prathima Rajan, an analyst in Celent's banking group, "Indian banking industry assets are expected to reach US $ 1 trillion by 2010". On the other side, development of technology is uplifting the functioning and services of banking sector. With the development and adoption of technology in banking sector, banking customers are also expecting more day by day. Therefore, the service providers are becoming further customer centric in their approach of providing services in order to provide customer satisfaction. In banking sector, the recent advancement is Internet banking. Internet banking refers to the use of Internet as a remote delivery channel for banking services. At the basic level, Internet banking can mean the setting up of a web page by a bank to give information about its product and services (Jasimuddin, 2000). At an advance level, it involves provision of facilities such as accessing accounts, funds transfer, enabling integrated sales of additional products and access to other financial services such as investment and insurance(Diniz, 1998).

LITERATURE REVIEW
Customer is foundation for all sectors and customer expectations are rising now. They want improved, convenient, and easy service. Moreover, in the age of globalization and cut throat competition, survival of the service providers becomes difficult. They have to satisfy the customers' expectations for continued existence. Now banks are providing services to the customers through electronic mode. In this section of literature review different studies related to customer satisfaction and Internet banking have been discussed.

Yi (1990) in his study titled 'A Critical Review of Consumer Satisfaction' stated that customer satisfaction is a collective outcome of perception, evaluation and psychological reactions to the consumption experience with a product or service. Kangis and Voukelatos (1997) in their paper titled 'Private and Public Banks: a Comparison of Customer Expectations and Perceptions' reported the findings of a survey among customers of private sector banks and public sector banks in Greece on service quality perceptions and expectations. It was found that services offered by private sector banks had a more favorable influence on actual perceptions of quality received than that of public sector banks. It was suggested that banks should look carefully at each one of the dimensions of customers' perceptions. Frust et al., (2000) in their study titled 'Who Offers Internet Banking' investigated how national banks offering Internet banking performed relative to other national banks with respect to profitability, cost efficiency and other characteristics. The study revealed that the Institutions with Internet banking outperformed non-Internet banks in terms of profitability. It was concluded that revolutionary developments in information and communication technology would continue to have a profound impact on the banking and financial industry. Ramayah and Ling (2002) in their study titled 'An Exploratory Study of Internet Banking in Malaysia' conducted a study on Internet banks of Malaysia. It was opined that the main driving factor for the adoption of Internet banking was the extent of Internet connectivity as it was the pioneer to Internet banking. It was found that more than 90% of the respondents indicated that they had some form of Internet access. It was also observed that the banks had been successful in promoting and creating awareness of the products and services that were being offered through the Internet. The findings of the study revealed that users were very much concerned about security however Internet banking had a lot of potential in the Malaysian banks if the concern of the customers could be addressed. Tahir and Ismall (2005) conducted study titled 'Service Quality in the Financial Services Industry in Malaysia: The Case of Islamic Banks and Insurance' on the Islamic banks and insurance companies to find out difference between consumers' expectations and perceptions. All the six dimensions had negative gap score for Islamic banks and required careful and considerable attention because the gap could widen and customer dissatisfaction could rise. In order to close the gap and increase service quality, Islamic banks required to identify and improve the specific areas where the gap occurred. The negative gaps indicated that the delivered service level did not meet their expectations of service quality. The researcher mentioned that the larger the gap, the more serious quality shortfall was from the point of view of the customers. Malhotra and Singh (2007) in their article titled 'Determinants of Internet Banking Adoption by Banks in India' attempted to discover the factors affecting a bank's decision to adopt Internet banking. The study revealed that the larger banks with younger age private ownership, higher expenses for assets, higher deposits and lower branch intensity evidenced a higher profitability of adoption of this new technology. It was also found that banks with lower market share also saw the Internet banking technology as a means to increase the market share by attracting more and more customers through this new channel delivery.

OBJECTIVES OF STUDY
The major objective of this research is to identify the customers' preferences towards Internet banking and to analyze their satisfaction level due to Internet

banking. This paper also tries to find the relationship between various demographic variables and satisfaction level of customers.

DEVELOPMENT OF HYPOTHESES

The hypotheses have been developed to identify the relation between gender, age, profession, education level, preference of bank and satisfaction level.
H_1: There is no significant relation between age and choice of bank of the customers of public sector bank, private sector bank and foreign sector bank.
H_2: There is no significant relation between occupation and choice of bank of the customers of public sector bank, private sector bank and foreign sector bank.

RESEARCH METHODOLOGY

Matching with the objectives of the present study, the relevant data has been obtained from secondary as well as primary sources.

SECONDARY SOURCES: Secondary information sources provide the required information to work on the objectives such as study of the trends and developments, etc. The various secondary information sources used for the present research include the journals and magazines, viz. Prajnan, Journal of Marketing, The Journal of Internet Banking and Commerce, Quarterly Journals of 'the Office of Comptroller of the Currency', Journal of Electronic Commerce Research, Internet Research, Journal of Academy of Business and Economics, E- Service Journal, International Journal of Bank Marketing, Journal of Service Research, Indian Banking Association Bulletin, etc. The secondary sources also include websites of banks.

PRIMARY SOURCES: A well-structured questionnaire was prepared and distributed to the customers of State Bank of India (SBI), Industrial Credit and Investment Corporation of India (ICICI) Bank and Standard Chartered bank (SCB) in the city of Jalandhar.

PRE TESTING OF QUESTIONNAIRE: The Questionnaire was pre tested with the response obtained from 30 respondents. The feedback of the respondents was useful in carrying out a few corrections/modifications in the items included earlier in the questionnaire.

DATA COLLECTION: The final Questionnaire was prepared and distributed to the selected customers of State Bank of India, Industrial Credit and Investment Corporation of India Bank and Standard Chartered bank in major centers of Jalandhar. These banks were selected for study as these have a good market share along with more customer base. The survey was conducted among 225 Internet banking customers of Jalandhar City. Only saving and current account holders were included in the framework of analysis due to the fact that these customers have contacts with the banks regularly.

TOOLS USED FOR DATA ANALYSIS: Percentages, frequencies and chi- square test has been applied to conduct analysis of data. Charts have also been prepared to depict the data.

PERIOD OF STUDY: The study has been conducted during January 2010 to October 2010.

DATA ANALYSIS AND INTERPRETATION

Data has been analyzed and interpreted on the basis of primary data collected from Internet banking users through a questionnaire.

TABLE-1: DISTRIBUTION OF SEX OF RESPONDENTS USING INTERNET BANKING

Sex	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Male	60	80	63	83.4	60	80
Female	15	20	12	16.6	15	20
Total	75	100	75	100	75	100

Table 1 depicts that out of the total respondents, the percentage of males using Internet banking in case of all the three categories of banks i.e. SBI, ICICI bank and SCB varies from 80 % to 83.4%. The percentage of females using Internet banking in all the three categories of banks varies from 16.6% to 20%.

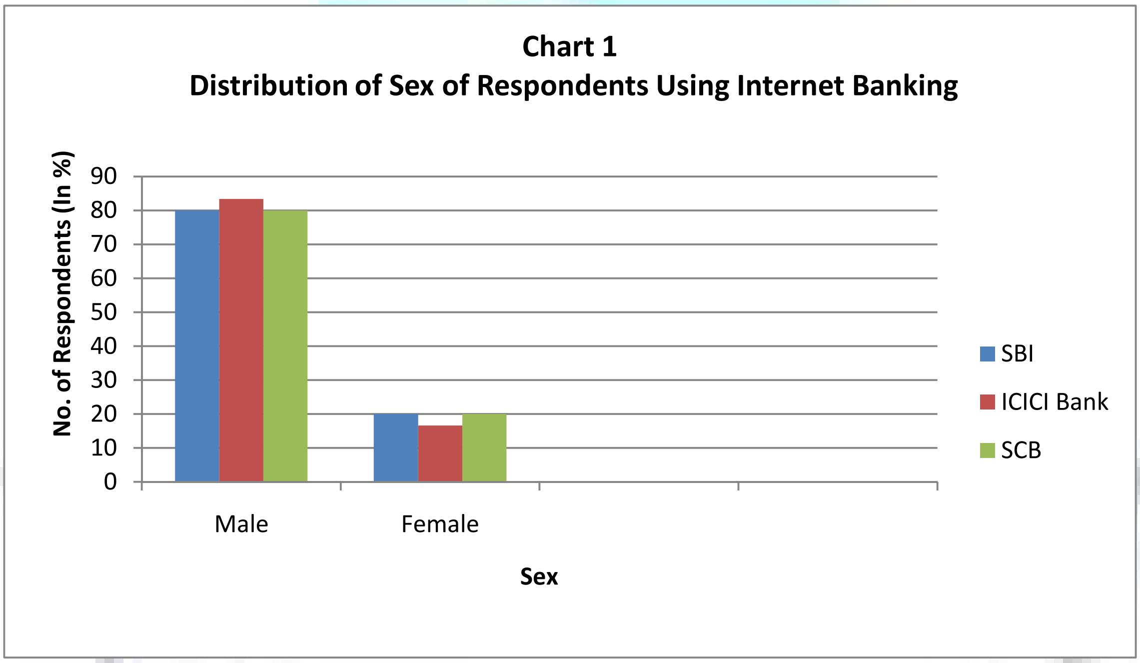


TABLE-2: DISTRIBUTION OF AGE GROUP OF RESPONDENTS USING INTERNET BANKING

Age Group (in years)	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
18-30	39	52	40	53.3	41	55
31-40	21	28	22	30	23	30
41-50	9	12	8	10	7	10
51 and above	6	8	5	6.7	4	5
Total	75	100	75	100	75	100

Table 2 depicts that 52% of respondents in case of SBI, 53.3% respondents of ICICI bank and 55% respondents of SCB, using Internet banking are young, under the age of thirty years. 28% of respondents in case of SBI, 30% respondents of ICICI bank and 30% respondents of SCB, using Internet banking belongs to the age group 31-40. 12% of respondents in case of SBI, 10% respondents of ICICI bank and 10% respondents of SCB, using Internet banking belongs to the age group 41-50. The least number of respondents using Internet banking is of 51 years or above age group.

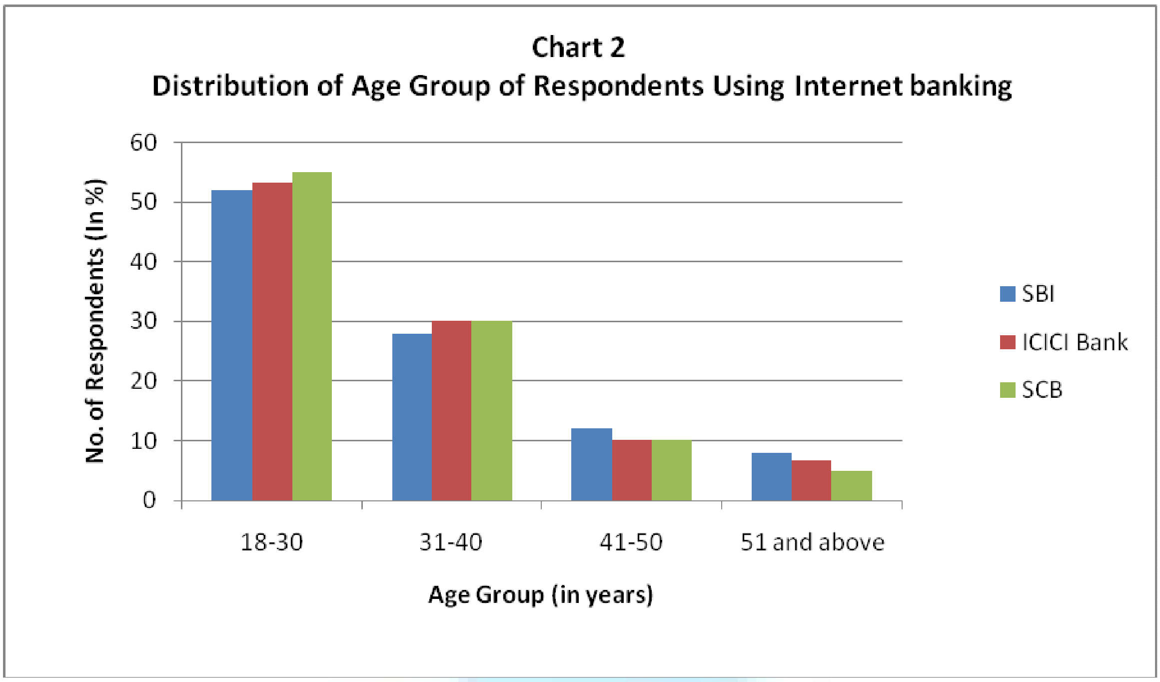


TABLE-3: EDUCATIONAL LEVEL OF RESPONDENTS USING INTERNET BANKING

Educational Level	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
High School or Lower	21	28	22	30	15	20
Bachelors' Degree	24	32	25	33.34	23	30
Masters' Degree	21	28	20	26.67	26	35
Doctorate Degree	6	8	5	6.66	7	10
Any Other (please specify)	3	4	3	3.33	4	5
Total	75	100	75	100	75	100

Table 3 discloses that data regarding educational level of Internet banking users indicate that in case of SBI and ICICI bank, maximum users i.e. 32% and 33.34% respectively are having Bachelor's degree. But in case of SCB, maximum users i.e. 35% of the total respondents are having Masters' degree.

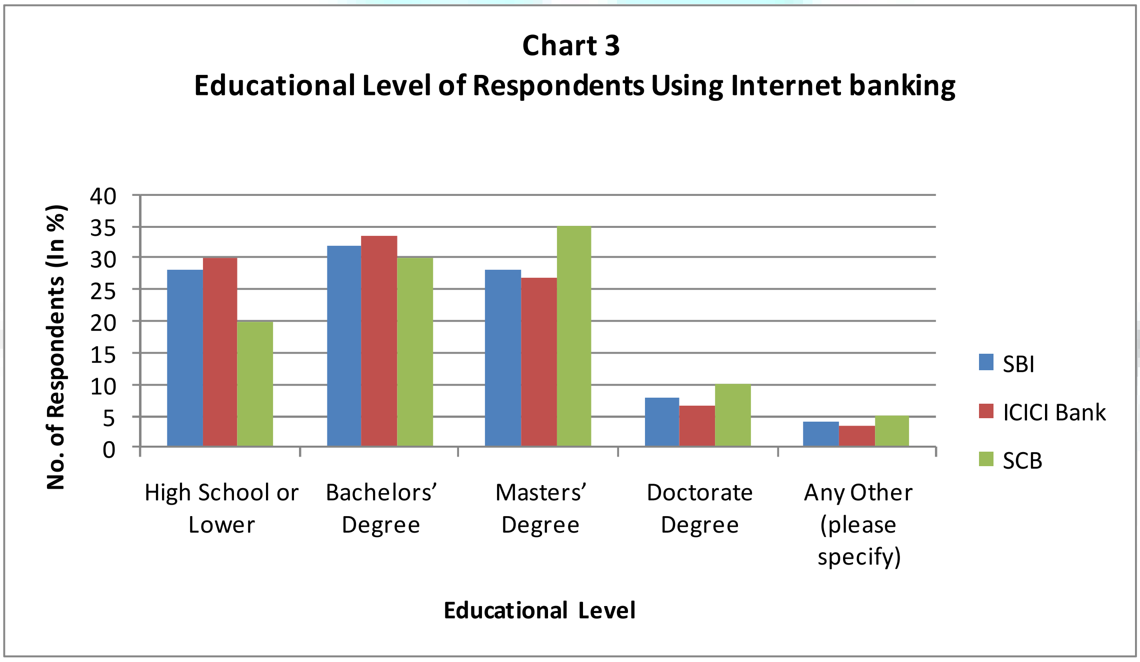


TABLE-4: DISTRIBUTION OF OCCUPATION OF RESPONDENTS USING INTERNET BANKING

Occupation	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Student	18	24	17	23.33	19	25
Industrialist	21	28	20	26.67	22	30
Professional	21	28	23	30	22	30
Unemployed	6	8	5	6.67	4	5
Retired	3	4	2	3.33	0	0
Others	6	8	8	10	8	10
Total	75	100	75	100	75	100

Table 4 exhibits that by collecting data of Internet usage as per occupation, it has been observed that in case of all the three categories of banks, maximum users are Industrialists and professionals. The percentage of respondents of these two occupations varies from 26.67% to 30% in case of all the three categories of banks. The retired persons' usage of Internet banking is least in all the three categories of banks.

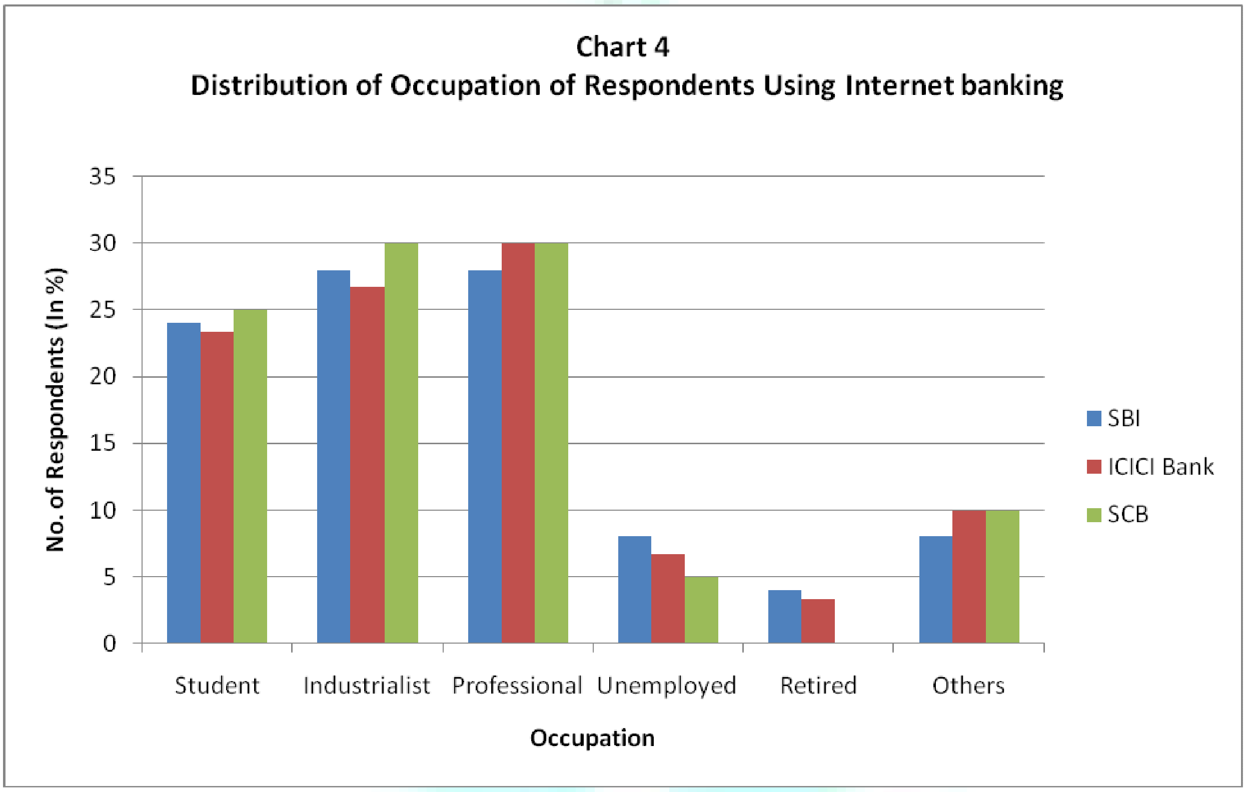


TABLE-5: DISTRIBUTION OF INTERNET BANKING RESPONDENTS AS PER NUMBER OF BANKS CURRENTLY USING

Number of Banks Currently Using	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
One bank	57	76	60	80	30	40
More than one bank	18	24	15	20	45	60
Total	75	100	75	100	75	100

Table 5 exhibits that 76% respondents in case of SBI and 80% of ICICI bank are using only one bank but the percentage is 40% in case of SCB. In case of SCB 60% respondents are using more than one bank i.e. along with foreign bank; they are using either public bank i.e. SBI or private bank i.e. ICICI bank.

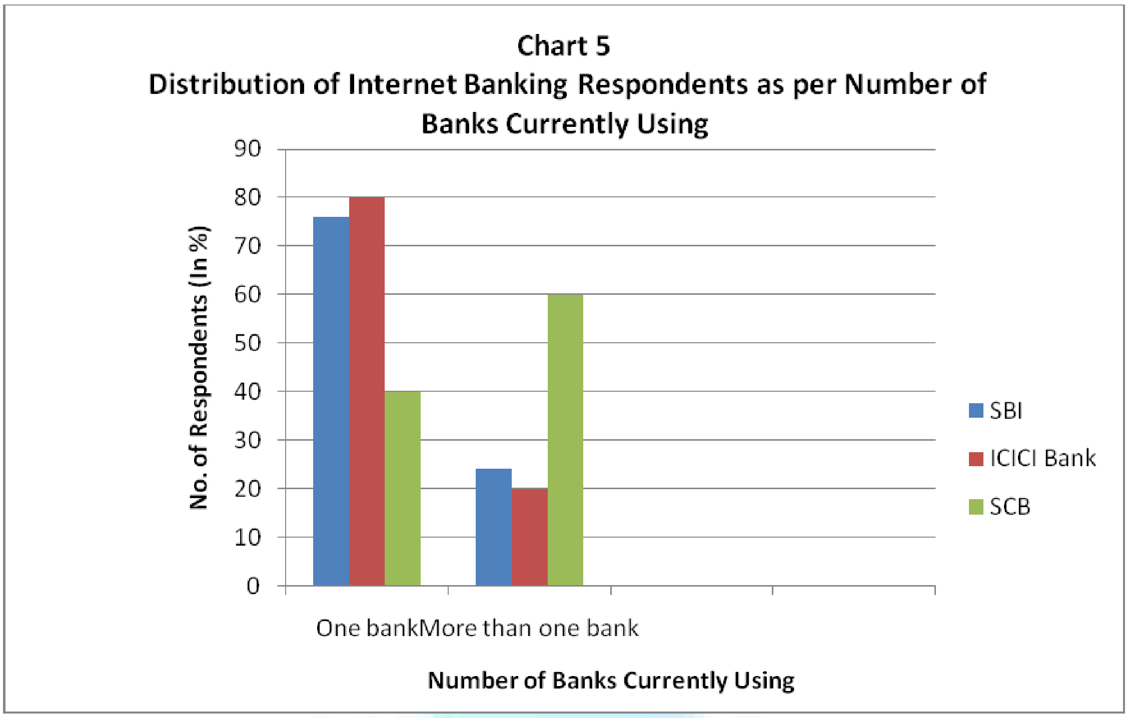


TABLE-6: RESPONDENTS' FREQUENCY OF USING INTERNET BANKING

Respondents' Frequency of Use	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Once a Week	12	16	12	16.66	11	15
Few Times a Week	6	8	8	10	8	10
Once a Month	15	20	15	20	15	20
Few Times a Month	6	8	10	13.34	11	15
Everyday	36	48	30	40	30	40
Total	75	100	75	100	75	100

Table 6 shows that 48% respondents in case of SBI, 40% respondents of ICICI bank and 40% respondents of SCB use Internet every day. In the category of using Internet banking 'few times a month' only 8% respondents, 13.34% respondents and 15% respondents fall in case of SBI, ICICI bank and SCB respectively.

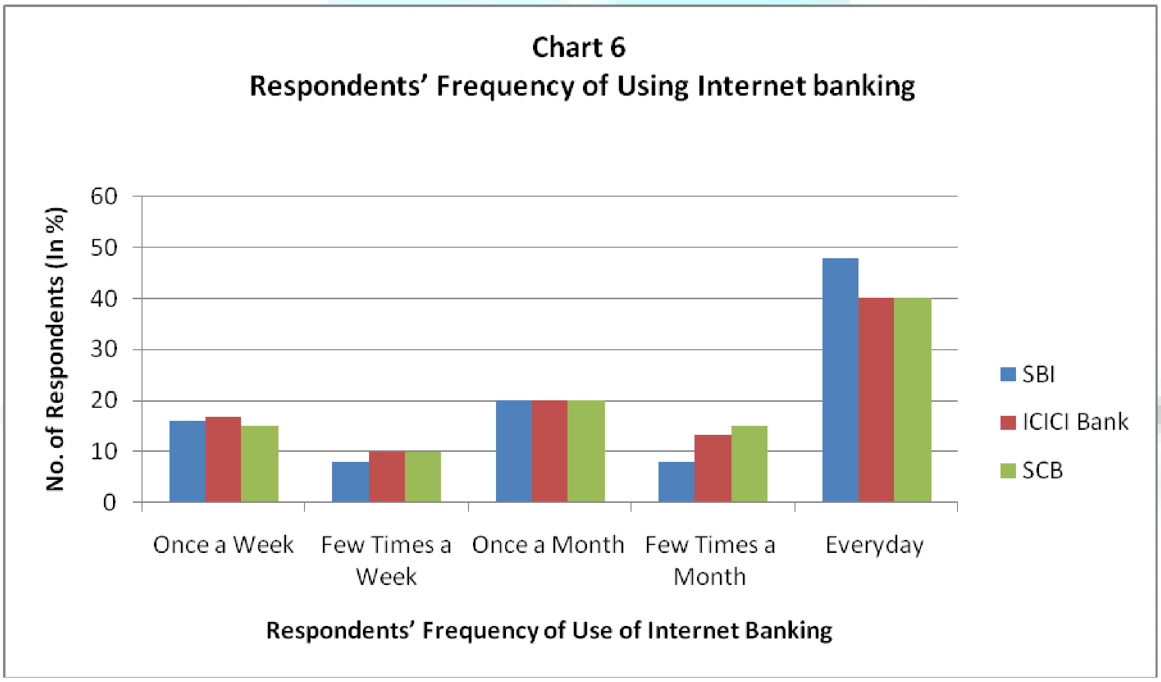


TABLE-7: RESPONSE OF INTERNET BANKING RESPONDENTS TOWARDS 'IS INTERNET BANKING BETTER THAN TRADITIONAL BANKING'

Response	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Yes	54	72	57	76.6	60	80
No	21	28	18	23.4	15	20
Total	75	100	75	100	75	100

Table 7 shows that Internet banking is better than traditional banking as most of the respondents respond in favor of Internet banking. 72% respondents of SBI, 76.6% respondents from ICICI bank and 80% respondents of SCB considered the Internet banking as better than the traditional banking.

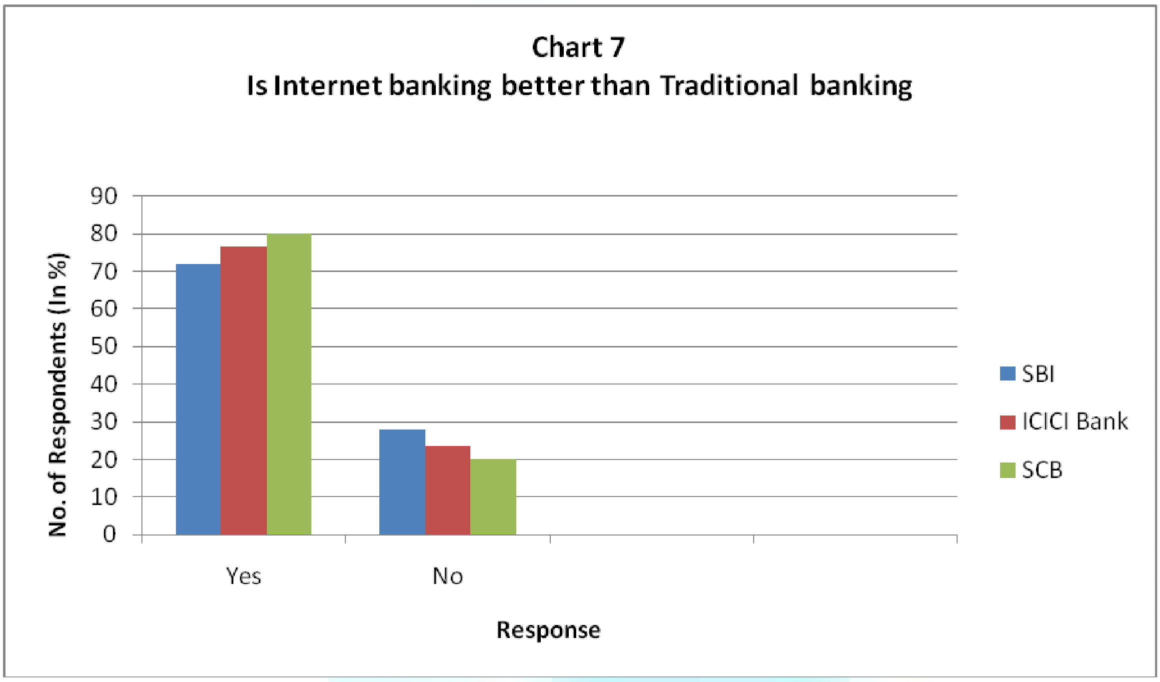


TABLE-8: RESPONSE OF INTERNET BANKING RESPONDENTS TOWARDS 'DO YOU PREFER INTERNET BANKING'

Response	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Yes	51	68	57	76.6	60	80
No	24	32	18	23.4	15	20
Total	75	100	75	100	75	100

Table 8 reveals that 68% respondents in case of SBI, 76.6% respondents of ICICI bank and 80% respondents from SCB prefer Internet banking.

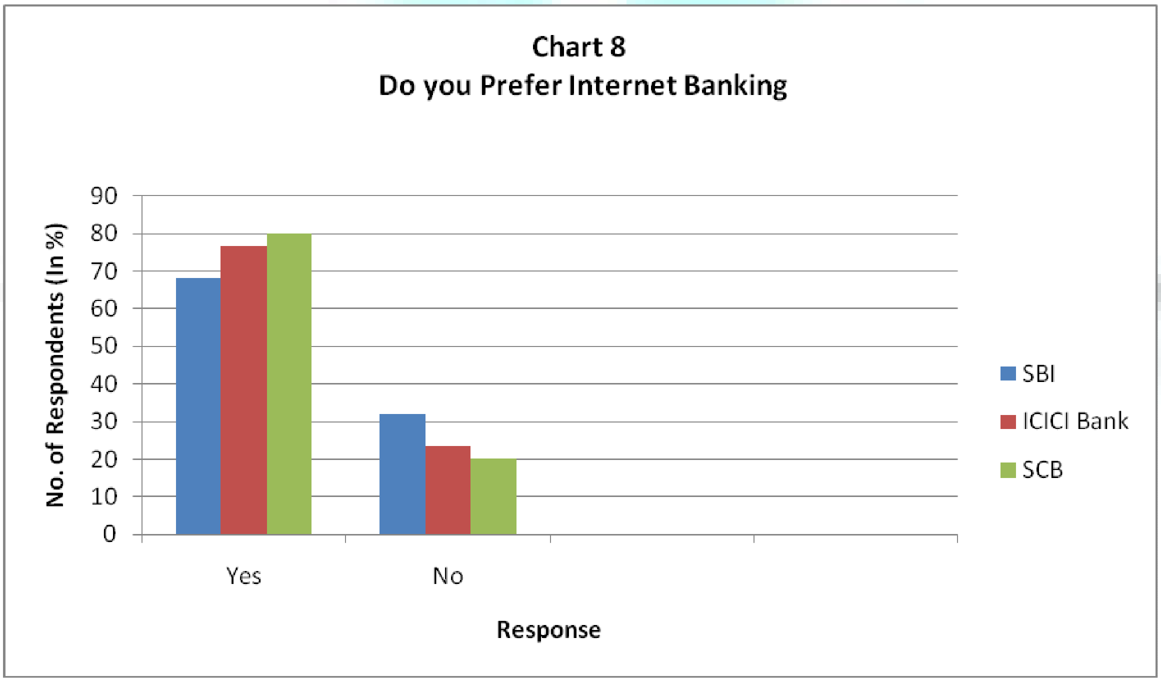


TABLE-9: RESPONSE OF RESPONDENTS TOWARDS SERVICE LEVEL OF THE RESPECTIVE BANK

Response Level	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Excellent	30	40	38	50	45	60
Good	24	32	20	26.67	15	20
Average	9	12	7	10	11	15
Poor	12	16	10	13.33	4	5
Total	75	100	75	100	75	100

Table 9 depicts that 40% respondents of SBI, 50% respondents of ICICI bank and 60% respondents of SCB stated Internet banking as 'excellent'. 32% respondents of SBI, 26.67% respondents of ICICI bank and 20% respondents of SCB consider the Internet banking as good. Only 16% respondents of SBI, 13.33% respondents of ICICI bank and 5% respondents of SCB stated Internet banking as 'poor'. Thus, response of maximum respondents in all the three categories of banks is at the response level of 'excellent'.

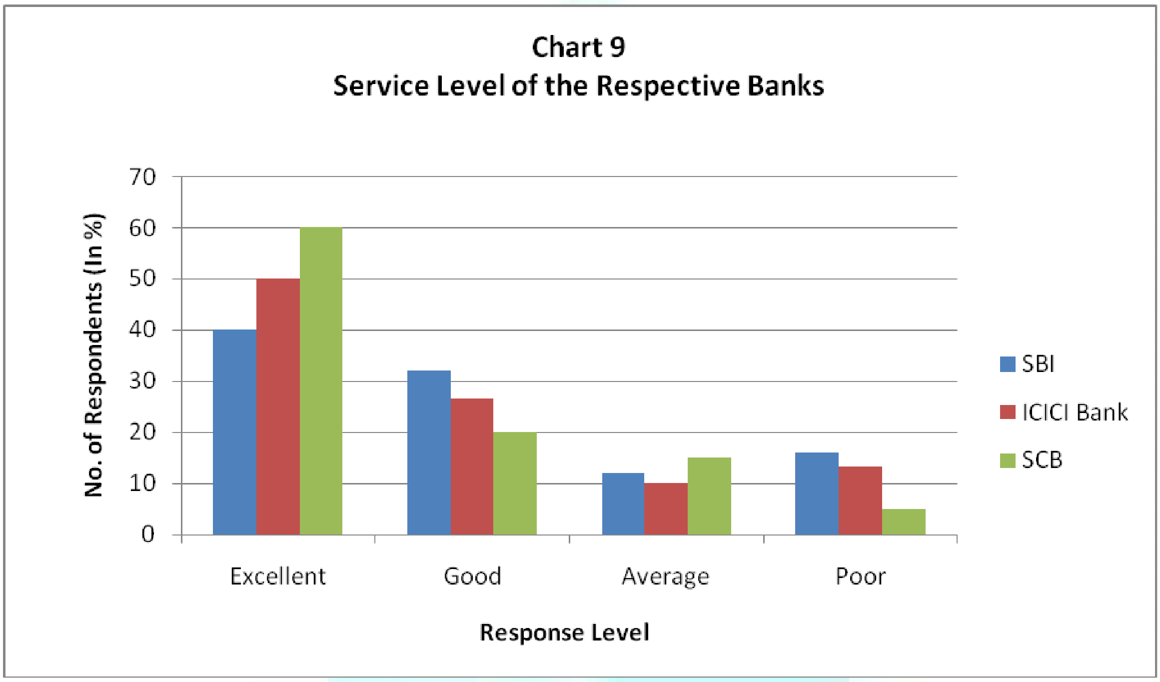
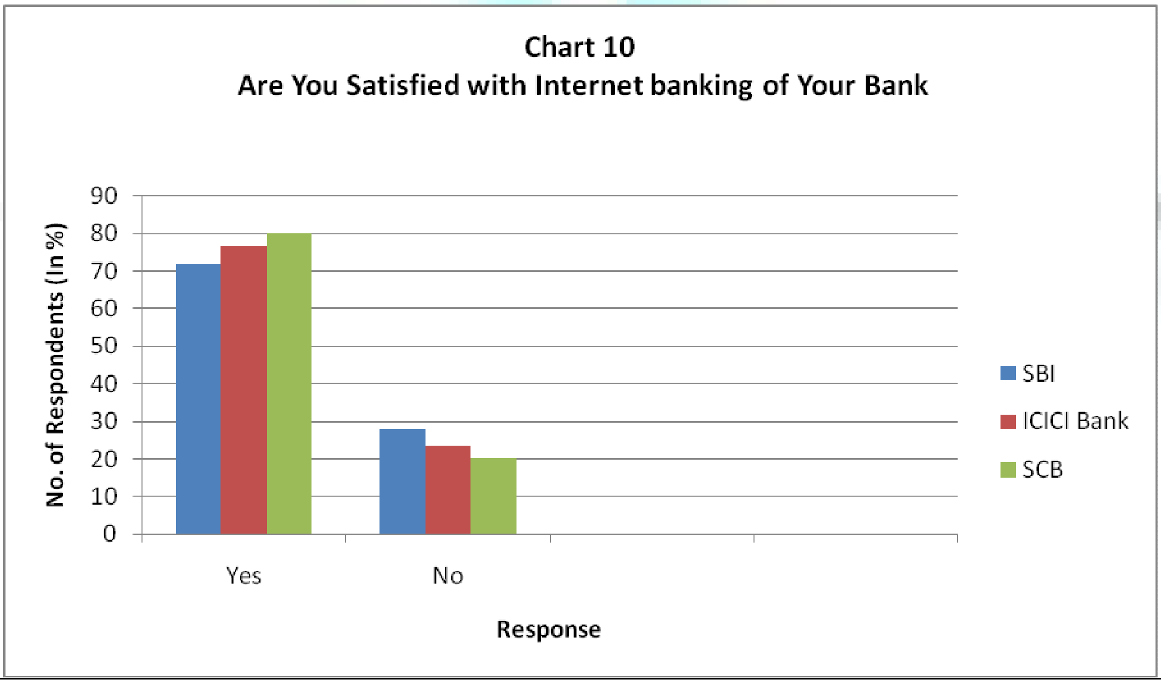


TABLE-10: RESPONSE OF INTERNET BANKING RESPONDENTS TOWARDS "ARE YOU SATISFIED WITH INTERNET BANKING OF YOUR BANK"

Response	SBI		ICICI Bank		SCB	
	No. of Respondents	%	No. of Respondents	%	No. of Respondents	%
Yes	54	72	57	76.6	60	80
No	21	28	18	23.4	15	20
Total	75	100	75	100	75	100

Table 10 shows that maximum respondents are satisfied with the use of Internet banking. 72% respondents of SBI, 76.6% respondents of ICICI bank 80% respondents of SCB are satisfied with Internet banking of their respective banks.



CROSS TABULATION OF AGE AND CHOICE OF BANK

Table 11 discloses that there is no significant relation between age of respondents and choice of bank of the three categories of banks.

Table 11: Contingency Table of Cross Tabulation between Age and Choice of Bank

		Age				Total (Number of Respondents)
		Less than 30 Years	31-40 Years	41-50 Years	More than 50 Years	
Name of Bank	SBI	30	16	7	4	57
	ICICI	32	18	6	4	60
	SCB	16	9	3	2	30
	SBI & ICICI	25	9	4	2	40
	SCB & ICICI	9	9	3	2	23
	SCB & SBI	8	5	1	1	15
	Total (Number of Respondents)	120	66	24	15	225

Calculated chi-square value = 3.898
Degree of Freedom= 15
Table value of chi-square at 5% level = 24.996
The chi-square value is not significant at 5% level of significance. Calculated value is less than table value. Hence, null hypothesis is accepted. It means the choice of banks is independent of different age groups.

CROSS TABULATION BETWEEN OCCUPATION AND CHOICE OF BANK

Table 12 reveals that there is no significant relation between occupation and choice of bank of respondents of the three categories of banks.

Table 12: Contingency Table of Cross Tabulation between occupation and Choice of Bank

		Occupation						
		Students	Industrialists	Professionals	Unemployed	Retired	Others	Total
Name of Bank	SBI	13	16	16	5	2	5	57
	ICICI	14	16	18	4	2	6	60
	SCB	8	9	9	1	0	3	30
	SBI & ICICI	9	11	12	2	1	4	39
	SCB & ICICI	6	5	4	1	0	1	17
	SCB & SBI	4	6	7	2	0	3	22
	Total (Number of Respondents)	54	63	66	15	5	22	225

Calculated chi-square value = 5.985
Degree of Freedom = 25
Table value of chi-square at 5% level = 37.65
The chi-square value is not significant at 5% level of significance. Calculated value is less than table value. Hence, null hypothesis is accepted. It means the choice of banks is independent of different occupations.

FINDINGS

1. The percentage of males using Internet banking in case of all the three categories of banks i.e. SBI, ICICI bank and SCB varies from 80 % to 83.4%.
2. 52% of respondents in case of SBI, 53.3% respondents of ICICI bank and 55% respondents of SCB, using Internet banking are young, under the age of thirty years.
3. In case of SBI and ICICI bank, maximum users i.e. 32% and 33.34% respectively are having Bachelor's degree. But in case of SCB, maximum users i.e. 35% of the total respondents are having Masters' degree.
4. 76% respondents in case of SBI and 80% of ICICI bank are using only one bank but the percentage is 40% in case of SCB. In case of SCB 60% respondents are using more than one bank.
5. 48% respondents in case of SBI, 40% respondents of ICICI bank and 40% respondents of SCB use Internet every day.
6. In case of all the three categories of banks, maximum users are Industrialists and professionals.
7. 72% respondents of SBI, 76.6% respondents from ICICI bank and 80% respondents of SCB considered the Internet banking as better than the traditional banking.
8. 68% respondents in case of SBI, 76.6% respondents of ICICI bank and 80% respondents from SCB prefer Internet banking.
9. 40% respondents of SBI, 50% respondents of ICICI bank and 60% respondents of SCB stated Internet banking as 'excellent'. 32% respondents of SBI, 26.67% respondents of ICICI bank and 20% respondents of SCB consider the Internet banking as good. Only 16% respondents of SBI, 13.33% respondents of ICICI bank and 5% respondents of SCB stated Internet banking as 'poor'.
10. 72% respondents of SBI, 76.6% respondents of ICICI bank 80% respondents of SCB are satisfied with Internet banking of their respective banks.

CONCLUSION

It can be concluded from study that age is independent of choice of banks. Hence, there is no significant relation between age and choice of bank of customers of SBI, ICICI bank and SCB. The occupation is also independent of choice of bank. Hence, there is no significant relation between occupation and choice of bank of customers of SBI, ICICI bank and SCB. Hence, Null hypothesis has been accepted. The study reveals that majority of the respondents of all the three sectors of banks are satisfied with Internet banking of their respective banks.

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I am sure that your feedback and deliberations would make future issues better – a result of our joint effort.

Looking forward an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

Sd/-

Co-ordinator