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THE RELATIONSHIP BETWEEN ERP SYSTEM'S FUNCTIONALITY AND SUPPLY CHAIN MANAGEMENT PERFORMANCE

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ABSTRACT

PURPOSE- *The purpose of this work is to explore the relationship between Enterprise Resource Planning (ERP) system's functionality and Supply Chain Management (SCM) performance.*

DESIGN/METHODOLOGY/APPROACH- *The questionnaire survey was posted to the Malaysian manufacturing companies that are using ERP system. The respondents of this study were the MIS or IT executives. A total of 80 usable responses was received and used in the analysis.*

FINDINGS – *The findings of this research indicated that there is a positive and significant relationship between ERP system's functionality i.e. (integration, material management,* *production planning, and controlling), and SCM performance. The workflow management, however, does not have a significant relationship with SCM performance.*

RESEARCH LIMITATIONS/IMPLICATIONS- *This research focused only on Malaysian manufacturing sector, where future research could cover service sector in order to generalize the finding for all Malaysian companies.*

PRACTICAL IMPLICATIONS- *The successfully implemented ERP system can contribute toward enhancing SCM performance through integration of internal business processes, enhancement of information flow among different departments inside the company, improvement of the company's relationships and collaboration with outsourcing suppliers, customers and other supply chain partners.*

ORGINALITY/VALUE- *The significant relationship between ERP system's functionality and SCM performance could encourage many companies to implement ERP system and contribute in technology diffusion between Malaysian companies.*

KEY WORDS

Enterprise Resource Planning (ERP) System, Supply Chain Management (SCM), Functionality.

INTRODUCTION

In the last few years of the twentieth century the world witnessed tremendous changes and developments in technology, particularly in Information Technology (IT). The improvement in IT in profound ways has changed the global economy in many ways which eventually affected the growth of economy in the world. In the past decade, these changes in the global economy have significantly redefined the way business being conducting. The growth of the Internet has also significantly affected every part of Information Technology, including Enterprise Resources Planning (ERP) systems, which facilitates the communication between business companies all over the world (Rashid *et al.*, 2002).

On the other hand, business management has entered the era of networking competition which moves the competition from local to global business environment and from company against company to that of supply chain against another supply chain. Currently, competition is not measured only by individual company performance but also in terms of supply chain performance. This competition of supply chain performance will increase the pressure on companies to meet customer demands as well as to achieve customer satisfaction and loyalty (Hsu, 2005).

The current changing business environment with fierce competition in the global market, intense pressure to meet challenges, the need for better and cheaper products with fast delivery, wide spread information networks, globalization, and the proliferation of e-commerce and e-business, are putting on an increasing demand for companies to build a strong information system infrastructure and to keep up-to-date with new technologies, such as ERP systems, in order to remain competitive in the global economy (Palaniswamy & Frank, 2000).

Today companies are constantly experiencing domestic and foreign competition, and they are seeking for robust technologies that can enable them to achieve better control over their business performance and attain cost reduction. There is also a need to improve quality standards as well as enhancing customer services to enable companies to compete in local and global marketplaces. Companies are also continuously struggling to reduce costs and response time, increase business profits, and improve their market share in order to gain a competitive advantage in the global economy. These great challenges also include managing stocks, distributions, services, customers, sales, workflow, operations, and materials (Spathis & Constantinides, 2003).

In fact, the main tasks for the management in the present environment include efforts toward reducing costs, improving profits, and producing quality and reasonably priced products in order to enable their companies to survive in the present global competition. Therefore, companies need a paradigm shift in the way they conduct their businesses from the traditional business operations to new technological solutions in order to remain competitive in local and global marketplace competition (Tarn *et al.*, 2002).

This competition encourages companies to use new technologies, tools, and sophisticated systems and software in order to respond effectively and efficiently to the new business environment. Such a paradigm shift could help them cope with their rivals and eventually enhance their competitive advantage in the business environment (Rahman, 2004).

Companies are beginning to realize that in order to survive in the global business environment they must improve not only their organizational efficiency, but also their whole supply chain. This is because competition today is not limited between companies only, but it has extended to be among their supply chains as well. These reasons force many companies to keep up to date and make large investments in developing and implementing better technologies and systems such as ERP systems (Davenport & Brooks, 2004).

ERP system could be a useful tool for companies to build a strong information systems infrastructure and to enable the management to undertake better decision-making based on accurate and on-time information. Furthermore, these systems improve product quality and customer responsiveness and also enhance information sharing and information quality among different departments inside the company, as well as extend beyond the company's boundaries to suppliers, customers and other partners in the supply chain. Ultimately, this will enhance overall business performance, particularly Supply Chain Management (SCM) performance, help to achieve competitive advantage in the global economy, and improve long term profitability (Klaus *et al*., 2000; Akkermans *et al.*, 2000; Hsu & Chen, 2004).

LITERATURE REVIEW

ERP System

By the late of 1980s and early 1990s many companies were suffering from an enormous IT integration problems and were in need for an absolute software solution that can integrate different functional areas and at the same time allow these functional areas to share from a single and centralized database without any data inconsistency problems and without losing flexibility. Therefore, software vendors established ERP system in the mid of 1990s in order to solve integration problems, make effective business solution, and provide companies with all IT needs under a single software system (Loonam & McDonagh, 2005).

ERP systems were emerged in the beginning of 1992, however, in the recent years ERP system has become one of the most well known business software in the marketplace and an essential part of everyday IT investments for many companies that believe ERP systems will provide solutions for their IT problems and therefore provide effective online transactions with the current e-business era. Moreover, one of the significant and global developments of IT is the broad acceptance of ERP systems by many companies worldwide which reached today to consider ERP system as the most rapid growing system in operational area (Lopes, 1992; Zhang *et al*., 2004; Molla & Bhalla, 2006).

According to O'Brien and Marakas (2008) *"Enterprise Resource Planning is a cross-functional enterprise system driven by an integrated suite of software modules that supports the basic internal business processes of a company. Basically, ERP system is the technological backbone of e-business, an enterprise-wide transaction framework with links into sales order processing, inventory management and control, production and distribution planning, and finance"*

This definition reveals that ERP system is an effective enterprise-wide information system that tracks customers, process orders, manage inventory, pay employees, and provide general ledger, payable, receivables and other necessary functions that are related to accounting, finance, marketing, human resource, and other departments in order to achieve optimum improvement in business performance as well as increase the management of information system within the company (Kroenke, 2009).

In fact, ERP is software for business management systems which integrates all business functions, processes, and information between different departments inside the company. This business software system will allow companies to automate and integrate the majority of their business processes, share common data and practices across the entire enterprise, and produce and access information in a real-time environment (Lopes, 1992; Deloitte, 1999).

This integrated enterprise-wide system will automate the main business functions such as manufacturing, human resource, finance, as well as supply chain management and eventually enable companies to streamline their operations and processes (Gibson *et al*., 1999). As a conclusion from Lopes (1992) ERP system is better, faster and more economical solution for business processes in the new information system paradigm. However, ERP system is an enterprise-wide integration of data, information, as well as business processes.

ERP System Functionality

The origin of ERP system was in manufacturing providing only production planning functionality, and afterward in the mid of 1990s, the system further expanded to contain functionality such as financial management, order management, assist management, and human resources management. In the recent years ERP systems functionality increased to include marketing automation, e-commerce, sales, and supply chain systems. Currently, the major ERP systems applications contain financial applications, human resources applications, and manufacturing applications that provide multiple functionality (McAdam & Galloway, 2005).

ERP systems functionality can cope with different functional area, such as, sales, accounts receivable, accounts payable, engineering, inventory management, production, purchase, quality management, human resources, production and distribution planning. Basically, ERP systems functionality competent to integrate, optimize, and coordinate physical, cash, and information flow in the above mentioned functional area as well as within the entire supply chain of the company (Shankarnarayanan, 1998; Zheng *et al*., 2000).

Several modules in ERP system provide different functionality and support different business functions such as manufacturing, inventory management, personnel management, storage management, financial administration system, marketing and order processing. These modules are combined through a common data model and database system and are also integrated across functional support which indirectly supports the integrations among different business functions and ultimately provide integration functionality (Hsu & Chen, 2004; Klaus *et al*., 2000).

For example, SAP R/3 package contains core modules where each module provides a particular functionality such as, materials management, asset management, production planning, plant maintenance, project system, controlling, quality management, industry solutions, financials, human resources, sales and distribution. Each of these modules formed from sub-modules, for instance the financial module includes sub-modules like accounts payable, accounts receivable, and general ledger. (Parr & Shanks, 2000).

Typically, when companies decide to implement ERP systems, the first decision will be related to the selection of modules that the company needs, because usually most of companies select some modules that they need them in order to provide specific functionality that fit to the company requirements. Implementing all modules of ERP system is not affordable by many companies and this is because of the large sum of money that the company needs to pay in order to implement the whole package of ERP system and then obtain all functionality of the system (Parr & Shanks, 2000; Sheikh, 2003).

Therefore, companies usually implement some modules of ERP system and not all modules. The selection of the modules depends on the requirement of the company and on what functionality they need to be provided within the company as well as on the need of specific modules that can fit to particular requirements and therefore satisfy the business objectives (Parr & Shanks, 2000; Sheikh, 2003; Rolland & Prakash, 2001).

For instance, when companies need to improve their financial performance they implement modules related to finance and when they need to improve supply chain management performance they implement modules related to SCM (SAP, 2006). However, this study focuses on modules or functionality that can contribute in enhancing the supply chain management performance such as, integration, production planning, controlling, materials and workflow management, procurement and distribution.

This research aimed to improve supply chain management performance through the successful usage of ERP system functionality. Therefore, the selection of the dimensions of this study was based on the functionality of ERP system that contributes in improving supply chain management performance. Five functionality of ERP system were selected and that was based on extensive review of literature, suggestions from ERP vendors such as SAP and Oracle, and finally on the feedback obtained from some of Malaysian manufacturing companies that are using ERP system such as Proton, Intel, and Nippon, where eventually lead to the selection of five functionality that contribute towards improving SCM performance. The functionality of ERP system that were selected as the dimensions or the independent variables of this study are integration, production planning, controlling, materials and workflow management, procurement and distribution (Davis, 1998; Parr & Shanks, 2000; Sheikh, 2003; SAP, 2006).

ERP System Functionality and SCM Performance

Davenport and Brooks (2004) noted the large impact of ERP systems on SCM in helping companies to share information with other partners. Upon receiving an order from their customer, their supplier will immediately replenish the raw materials based on the information they received. Therefore, in order to monitor and collect information within the supply chain, ERP system is needed with the additional external functionality and devices of SCM and Manufacturing Execution Systems (MES).

The main philosophy of SCM is to have the right product in the right place, at the right price, at the right time, and in the right condition. Therefore, companies need not only to flow information within the company but also they need to share this right information with the right supply chain partner in the right time. In order to achieve these goals, organisations need an information system, such as ERP system, to facilitate the synchronization of the entire supply chain and provide timely information to all supply chain partners in order to assist their decision making and eventually attain customer satisfaction. ERP systems are generally conceived as an important precursor to SCM performance and a very useful tool for its improving (Zheng *et al.*, 2000).

With ERP systems functionality, companies are able to integrate all functional units, standardize and manage information sharing within their entire departments and then extended it to suppliers and customers in order for suppliers to expedite the delivery of necessary raw materials and also in order for customers to place an order faster and smoother. For example, Northern Digital Inc. implemented ERP system from Intuitive Manufacturing Systems which provided a level of ERP system functionality that could immediately improve inventory management, expandability of entire system, and flexibility in the whole supply chain in order to support the company in current competitive business environment. After a successful implementation of ERP system the revenue of the company has increased from $10 million to over $20 million (Turban *et al.,* 2008).

There is a wide consensus among many authors on the importance of ERP system in the improvement of supply chain performance. For instance, Wieder *et al*. (2006) found that, there are positive impacts of ERP systems on supply chain performance. Zeng and Pathak, (2003) stated that, there are several records of success indicating that the integration of supply chain can enhance and improve the performance of the supply chain to be effective and competitive in the global business environment.

Moreover, Hitt *et al.* (2002) pointed out that, investment in ERP systems improves productivity and business performance. Cotteleer (2002) found that, ERP systems able to improve operational performance within the supply chain. Themistocleous *et al*. (2002) come up with a conclusion as ERP systems supported SCM since long time.

On the other, there is hand a large argument among several authors in ERP literature about the section or the area that ERP system improves inside the company as well as within the whole supply chain. Rom and Rohde (2006) argue that, ERP systems can support data collection and management accounting better than other systems such as strategic enterprise management system. Spathis and Constantinides (2004) noted that, ERP system improves flexibility in information generation, as perceived by many companies, and it is able to decrease operational costs and cycle time and thus increase customer satisfaction and loyalty. Tarn *et al.* (2002) pointed out that, ERP systems able to expedite information sharing within SCM in order to enable closer cooperation among supply chain partners and to reduce the cost of transaction.

Moreover Akkermans *et al.* (2000) found that, ERP systems contribute toward enhancing SCM in technical areas such as standardization, transparency and globalization. They also found that, there is a close interrelation between ERP and SCM. Madu and Kuei (2005) stated that, in order to support SCM effectively, companies need to implement ERP system. A conclusion can be drawn from the above discussion as ERP system able to support and improve all departments inside the company as well as the entire supply chain of the company.

In order to improve supply chain performance ERP system is needed where companies can integrate all their business processes through breaking the barriers among different functional departments inside the company in order to be more responsive and flexible and at the same time avoid repeating the same task. This is could be possible because ERP systems contain single and integrated database that prevents any data inconsistency problems and smooth the flow of information among supply chain partners (Chuang & Shaw, 2005).

The overall supply chain performance could be improved through the channel coordination, information sharing, operational efficiency, and integrated communication within the supply chain. ERP system provides integration functionality for better communication and coordination within the company and its supply chain. The success of ERP system and the supply chain highly depends on the process of integration achieved in the company and this is could be achieved smoothly with the core functionality of ERP system which provides web linkage, facilitates Electronic Data Interchange (EDI), and integrates the entire supply chain in order to support effectively the company's supply chain activities (Goodhue *et al.*, 1992; Lee *et al.*, 1997; Olson *et al.*, 2005; Park & Kusiak, 2005).

According to a study conducted in Thailand on Thai-owned and multinational companies, ERP systems able to improve scheduling, tracking, and managing inventories and raw materials. It also able to save costs, improves business processes and internal integration, reduce human error and staff costs, enhance visibility and accessibility to data, and increase responsiveness (Arunthari, 2005).

SCM performance

SCM performance defined as the procedures to measure the effectiveness and efficiency of the supply chain, and that includes the measures of cost, quality, time and customer responsiveness, and flexibility (Neely *et al.*, 1995; Beamon, 1999).

Davenport and Brooks (2004) noted that SCM contributes toward the reduction of inventory and working capital. It also makes a close relationship between suppliers and customers. In fact, SCM is a coordination and cooperation between suppliers and customers to share information and exchange goods and services.

SCM contains activities that can facilitate the movement of goods and the flow of information from the raw materials to end customers. It helps companies to improve the relationship between suppliers and customers in order to produce a high quality product at a lower cost. This is to gain a competitive advantage in the global market (Chuang & Shaw, 2005).

In the present economy SCM considered as one of the most important and powerful management strategies that has significant impact on business performance. However, when companies place SCM in their business model they can provide products with premium quality at low price in order to attract customers. In fact, SCM is an important component to extend and link with suppliers, distributors and retailers in one distribution network whereby companies can obtain the best products at the lowest cost and thus increase profitability and gain a competitive advantage in the business world (Chou *et al*., 2004; Zheng *et al*., 2000).

In fact, SCM facilitates the movement of products through the supply chain, managing the associated information flow, organizing the business relationship with customers and suppliers and other partner in the supply chain, and creating customer value to achieve customer satisfaction and loyalty (Burca *et al*., 2005).

On the other hand, SCM can be perceived through managing upstream and downstream operations, which resulted in reducing the operational costs in order to improve the profit margin, and in delivering the products to the market in order to reach the customer on time (Sundaram & Mehta, 2002). The goals of SCM are to reduce uncertainty and risks related to the supply chain, and this is can contribute in decreasing inventory levels and cycle time, improving business processes, and enhancing customer service, and finally increase profitability and enhance competitiveness of the company (Turban *et al.,* 2008).

In 2000, a survey has been conducted on large manufacturing companies in USA indicated that, companies with a solid SCM are able to reduce their operating costs, inventories, product life cycle and cycle time tremendously, and that will certainly increase cash flow, working capital, efficiency of transactions in supply chain, customer services and on time delivery (Zheng *et al*., 2000).

However, SCM considered as one of the most important success factors in the future of business environment, meanwhile managing the entire supply chain are very challenging and not an easy task, therefore companies begun to consider and redirect their efforts toward information systems, such as ERP systems, in order to improve their SCM performance and give them the opportunity to gain a competitive advantage in the global economy (Lambert & Cooper, 2000).

Zheng *et al*. (2000) pointed out that, the main five parts of any supply chain is plan, buy, make, move, and sell. SCM contains applications such as, manufacturing planning, demand planning, distribution planning, transportation management, warehousing management, performance management, production scheduling, freight payment, capacity planning, customer clearance, sourcing and procurement, and finally supply chain optimization.

Therefore, the success of supply chain depends on how efficient and effective each part and application of the supply chain, and also on how well these parts and applications integrated with each other in order to assist the entire supply chain to move smoothly and efficiently (Zheng *et al.,* 2000). ERP systems are able to integrate all parts and applications of the supply chain, and also able to facilitate the efficiency of each part and application in the supply chain.

In order to create an effective and successful SCM, it requires cross-functional integration, as well as many companies need to integrate the whole supply chain, which includes suppliers, warehouses, factories, distributors, and retail outlets, and provide cooperation between all supply chain partners through planning, coordination, and information sharing which is critical to achieve successful and effective operation of supply chain (Stevenson, 2002).

In fact, the key to achieve effective SCM is accomplishing customer demand on time. However, there are several steps must be taken in order to attain an effective supply chain that includes developing a strategic objectives and tactics, creating strategic partnerships, coordinate activities with suppliers and customers, and finally organize planning and execution within the supply chain (Lambert & Cooper, 2000).

These require implementation of an information system that facilitates and expedites the exchange of data and information between supply chain partners, integrate functional units, and allow everyone in a company to access to a single database and use the same data and information without any data inconsistency problems. The suitable information system that can provide all the above mentioned characteristics is the ERP system.

ERP could be an effective system that assists companies in creating effective and successful supply chain management. In fact, ERP systems introduced to integrate all functional units of a company and its supply chain in order to make it in one system. Therefore, all data and information related to SCM will be accessible and retrieve from one system. The ease of access to one system from various functional units and the advancement of IT and computing research have resulted in enhancement of SCM performance (Tjoa & Raman, 1999; Rashid *et al.*, 2002).

ERP systems include SCM module which contains sub-modules for materials procurement, material transformation and distribution of products to deliver the right product to the right place at low price in order to gain customer satisfaction and loyalty as well as achieve effective and successful SCM performance (Tjoa & Raman, 1999; Rashid *et al.*, 2002).

RESEARCH MODEL AND HYPOTHESIS

This research attempts to investigate the relationship between ERP system functionality and SCM performance**.** The theoretical framework of this study was developed based on the Socio-Technical theory. This study was designed in order to investigate the impact of ERP system SCM performance.

Based on the extensive literature review on ERP system and SCM, and the problem statement that presented in chapter one, as well as the Socio-Technical theory, an integrated theoretical framework has been developed in order to investigate the relationship between ERP system functionality (integration, production planning, controlling, materials & workflow management, procurement & distribution) and SCM performance**.**

Based on the theoretical framework, the hypotheses for this research dimensions were formulated and developed in order to test the relationships between ERP systems functionality and SCM performance and finally achieve the research objectives. Therefore, the following hypotheses were developed:

H_1: *There is a relationship between Integration functionality and SCM performance.*

H_2: *There is a relationship between Materials Management functionality and SCM performance.*

H_3: *There is a relationship between Production Planning functionality and SCM performance.*

H_4: *There is a relationship between Controlling functionality and SCM performance.*

H_5: *There is a relationship between Workflow Management functionality and SCM performance.*

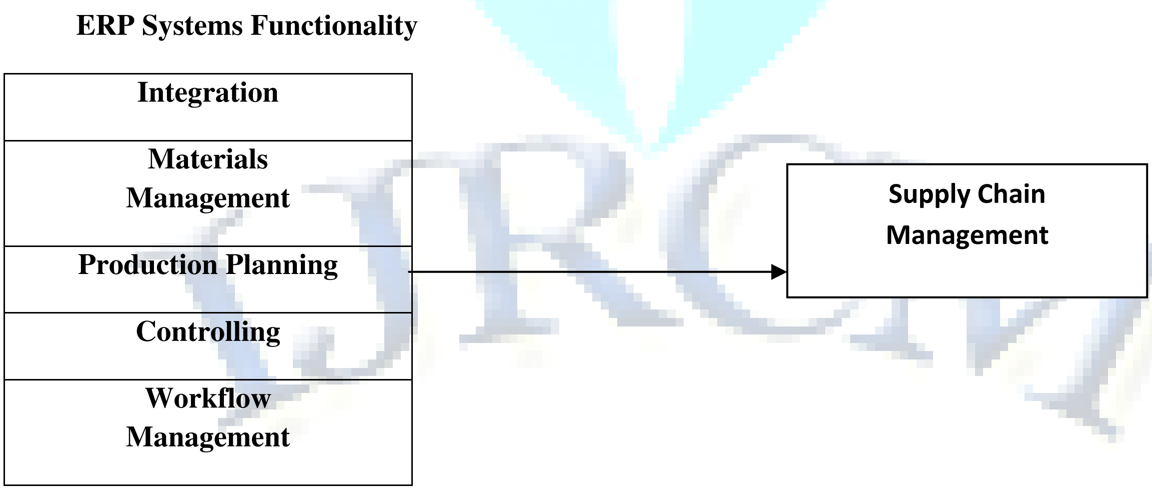

Figure 1: The Research Model.

METHODOLOGY

The questionnaire survey of this study was posted to the Malaysia manufacturing companies that are using ERP system. The questionnaire focused on the functionality of ERP system, namely, integration functionality, material management functionality, production planning functionality, controlling functionality, and workflow management functionality, with respect to SCM performance. The respondents were asked to rate the degree of agreement for each functionality of ERP system as well as for the SCM performance using five-point Likert-type scale rating from 1=strongly disagree to 5= strongly agree. The target respondent in each manufacturing company was the MIS or IT executive or the person in charge for ERP system. The population of this research is the Malaysian manufacturing companies that are using ERP system listed in Federation of Malaysian Manufacturers (FMM) which are about 200 companies, from these 200 companies 132 were selected randomly in order to be the sample of this research.

The instruments for ERP systems functionality were adapted from different sources such as (Spathis & Constantinides, 2004; Tadinen, 2005; Vanderfeesten & Reijers, 2006). On the other hand, the instrument for Supply Chain Management variable was adapted from (Zhang *et al.*, 2006; Beamon, 1999; Neely *et al.*, 1995; Shepherd & Gunter, 2006; Li *et al.*, 2005).

RESULTS AND DISCUSSIONS

The usable response rate of this study was 61%, in other words 80 usable questionnaires were received from Malaysian manufacturing companies that are using ERP system. Majority of the companies' ownership were of local rating 58.8%, and 41.2% were of foreign ownership. The size of the companies in term of employees' number shows that the majority of respondents companies were having more than 150 employees constituting 72.5%. The geographic scope of most companies was worldwide rating 46.3%. In term of customers' and suppliers' number, more than half of the respondents were having more than 150 customers rating 53.8% and more than 150 suppliers rating 51.3%. 31.3% of the target companies selected SAP as the provider of their ERP system. In this research the majority of companies implemented and currently uses ERP system since more than 5 years rating 47.5%. The main two reasons behind adopting ERP system in most of the companies was to improve supply chain management performance and overall business performance rating 47.5% and 43.8% respectively.

The coefficient alphas for the construct was computed in this research through the reliability test in SPSS and presented in table 1. In this research, the Cronbach's Alpha of the measure was highly reliable since it is above the limit of acceptability which is 0.70 (Cronbach's Alpha> 0.70).

Table 1: ***Reliability Analysis***

Statistics for	***Coefficient Cronbach's Alpha***	**Mean**	**Variance**	**Std. Deviation**	**No. of Items**	**No. of Cases**
Scale	**.889**	**144.5**	**161.7**	**12.7**	**37**	**80**

A five-point Likert-type scale rating from 1=strongly disagree to 5= strongly agree was used for measuring all the items of this study. According to table 1, the mean values for ERP system functionality i.e. integration, material management, production planning, controlling, and workflow management, are 3.99, 3.92, 3.94, 3.78, and 3.88, respectively which are above the average. The standard deviation ranges from 0.45 to 0.77. These results indicate that the ERP system's functionality worked seamlessly and smoothly in the manufacturing companies. Integration functionality considered as the main functionality of ERP system, which score the highest mean value among the ERP system functionality that is 3.99, indicating that there was very high integration between several business units in the companies' supply chain, and also between software applications across companies' supply chain. Eventually, SCM performance obtained mean value of 3.89, and standard deviation of 0.39, which shows improve in the SCM performance. The summery of descriptive analysis presented in the following table (2).

Table 2: ***Descriptive Analysis***

Construct	*Composite*	*Mean*	*Std. Deviation*
ERP System's Functionality	Integration	3.99	.45
	Material Management	3.92	.55
	Production Planning	3.94	.54
	Controlling	3.78	.61
	Workflow Management	3.88	.77
Supply Chain Management Performance	SCM Performance	3.89	.39

The general observation of the correlation table below indicates that the ERP system's functionality is significantly correlated with each other except with workflow management. ERP system functionality, i.e. integration ($r = 0.56$, $p<.01$), material management ($r = 0.37$, $p<.01$), production planning ($r = 0.49$, $p<.01$), and controlling ($r = 0.41$, $p<.01$), are significantly and positively correlated with SCM performance. However, workflow management is not correlated with SCM performance. These results indicate that there is a significant relationship between ERP system's functionality and SCM performance. The summary of the correlation analysis results are presented in table 3.

Table 3: ***Summary of Correlation Analysis***

	Integration	Material Management	Production Planning	Controlling	Workflow Management	SCM Performance
Integration	1					
Material Management	.41**	1				
Production Planning	.47**	.32**	1			
Controlling	.34**	.30**	.42**	1		
Workflow Management	.19	.20	.080	.16	1	
Supply Chain Management (SCM) Performance	.56**	.37**	.49**	.41**	.20	1

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

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

This study has found that there is a positive and significant relationship between ERP system's functionality i.e. (integration functionality, material management functionality, production planning functionality, controlling functionality), and SCM performance. The workflow management functionality, however, does not have a significant relationship with SCM performance, but still there is a positive relationship between workflow management functionality and SCM performance. These results indicated that the relationships between ERP systems functionality and supply chain management performance are positive and significant relationships.

CONCLUSION

This study aimed to investigate the relationship between ERP system's functionality and SCM performance. The finding of this study supports the significant relationship between ERP system and SCM performance. This research can conclude that, there is a positive and significant relationship between ERP system's functionality i.e. (integration functionality, material management functionality, production planning functionality, and controlling functionality) and SCM performance.

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Understanding the factors Affecting Selection of a Transport Service Provider – An Empirical Analysis

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Abstract

Transportation is one of the most important aspects of the supply chain management of a company as it acts as a physical link between customers and suppliers, enabling the flow of materials and resource. Globalization of business urges the need to have effective and efficient transportation of products from point of origin to point of destination. Most of the times, Manufacturers & traders heavily relies upon third party transport service providers in order to ensure on-time delivery of products. This study is an attempt to understand various dimensions of transport service providers that clients considers while selecting a particular service provider. This study is based on primary data collected from 124 clients based at Kolkata across the industry. The study also presents a framework to help transport service providers to design their service in such a way that ensure long term profitable relationship with clients by offering high quality transportation service.

Keywords

Logistics, Transportation, Supply Chain Management, Transport Service Providers, Factor Analysis.

Introduction

Transportation has a direct effect on most of the companies' supply chains. Fueled from globalization & liberalization across the industry, transport service providers are experiencing bright days as requirement for transport service is increasing day by day. Transportation is the core sector and function of logistic. The annual logistics cost of the world is about 3.5 trillion USD, logistic contribute around 13 percent of Indian GDP, which includes all mode of movement along with other warehousing and logistic activities. Now a day's a new concept of third party logistic comes into picture which means outsourcing logistic activities including transportation and warehousing to outside firms, which are not consignee or a consignor. Indian logistic is rising at 20 percent in relation to average world logistics industry growth of 10 percent. However, the road transportation alone contributes around Rs 2, 00,000 corers and is supposed to increase by 16 percent per annum. That means there is a huge opportunity for Indian Logistic companies which are now in budding stage. Now scope for Indian companies has to attract their clients for this they have to identify on what parameters they select their transport service provider and client's perception towards their service provider. The rating evaluates how long the freight takes to get to the clients without any problems. Some time clients uses the same transport service over a long period of time by establish long – term relationship with carriers. The present trend is that clients prefer those transporters where there is increased emphasis on security, resiliency and cost reduction. This study aims to identify various factors affecting the decision of clients at the time of selecting a transport service provider. At the same time, efforts have been made to appreciate the importance of these factors in establishing long term relationship with clients to deliver improved value to them.

Research Objectives

Transport is a key aspect of the supply chain of a company as it acts as a physical link between customers and suppliers, enabling the flow of materials and resource. The demand of transport service providers are increasing day by day as manufacturers and suppliers always prefer third party transport service providers to ensure on-time transportation of products from point of origin to point of destination. At this backdrop, the study is intended to understand the factors influencing the selection of transport service provider by clients (manufacturers and traders). At the same time, this study is also aimed to appreciate the importance attached to various criteria clients consider while selecting a particular transport service provider. The study tries to answer following questions;

- What criteria do clients use to select a transport service provider?
- Which selection criterion is most and least important to clients?
- What is the client's perception towards transport service providers?

Review of Literature

During selecting a transport service provider, clients consider many attributes; the clients arrive at an attitude toward the various service brands through an attribute evaluation procedure and most buyers consider several attributes in their purchase decision (Kotler et al 2006). During selecting a transport service provider clients consider various attributes like freight rates, timely delivery, damage of goods and other value added services. Some researcher find out value added services as the main criteria rather freight rates then also freight rates play a major role. Work done by McGinnis (1990) revealed that the service is usually more important than freight price when selecting carriers, priorities differ among service variables, and freight rates are more important than service in some user segments. He fulfilled that during selection of transporter this six variables found to affect freight transportation were (1) freight rates, (2) reliability, (3) transit time, (4) loss, damage, claims processing, and tracing, (5) shipper market considerations, and (6) carrier considerations. He also reveals that Freight rates are an important variable in some cases that should not be ignored.

According to Menon (1998) during selecting third party logistic, first step should be documenting performance requirements. Performance includes on-time delivery, exceed promises, and the availability of top management when necessary. Capability low error rates, the ability to meet or requirements will emphasize management creativity and financial stability of the provider. Second step will be the price selection.

According to Voss et al (2006) price is not the only vital aspect when shippers pick transport providers. They concluded after their research considering two methods, first one is traditional method and second one is TRA method. Variables range from operational to strategic, and transporter selection is influenced by the ultimate decision maker and his or her supervisor alike. It is very difficult to understand which criteria are most significant to each party and the associated influence on the ultimate carrier choice decision.

Study of Leahy et al (1995) stated that out of twenty-five potential determinants of successful third-party relationships, buyer orientation and dependability emerged with the greater importance ratings; sharing human resources and exit provisions were assigned the lowest importance ratings.

Work of Zsidisin et al (2007) revealed that on-time delivery is the most important criteria while selecting a transport service provider because it is a direct assess of customer service. If trustworthy of on-time delivery is of great importance to most shippers, then carriers have to build an ability to deliver goods on time into their day-to-day operations.

Carr and Green (1998) conducted a survey to elucidate how Ashland Chemicals select their carriers to transport goods in U.S and Canada. According to study shippers evaluate current carrier which will provide long term service. Relation between both the parties will maintain a healthy relation when service provider provides on-time delivery, reliability, efficiency and consistency.

Bowersox and Daugherty (1995) argued that time plays a critical role for a logistic company in the era of information technology. In future more forceful changes will be seen by the logistic organizations to gain and maintain aggressive advantage. Four specific trends which will guide for future service demand and maximize organizational flexibility are development of more transparent logistics organization structure, more strategic alliances, increased and focused emphasis on performance measurement and greater reliance on time-based strategies.

According to Lambert et al (1993) cost is the fourth most important attribute. Respondents placed greater importance to quality of dispatch personnel honesty, on-time pick up, on-time delivery and competitive rates out of 166 attributes. Most of the least important attributes are related to promotion components of marketing mix which includes direct mail, carrier sponsored entertainment, promotional gifts and advertising in trade journals.

Evers et al (1996) came up with six selection factors: timeliness, availability, firm contact, suitability, restitution and cost. Shippers overall perceptions are more greatly affected by timeliness and availability. Cost is the last criteria for selecting a transport service provider.

Research Methodology

This study is completely based on the primary data collected from traders, manufacturer and C & F agents at Kolkata. For this exploratory study, 124 respondents were randomly selected using simple random sampling method. The questionnaire was developed and administered to the selected respondents across the industries to gather first hand information to understand their perception towards transport service providers. The questionnaire included questions to understand importance of various search criteria (viz. price, regularity of service, timely delivery, convenient booking, trust etc.) clients consider at the time of selecting a particular transport service provider. The data was analyzed using exploratory factor analysis to extract the underlying construct that guide clients' decision regarding selection of a particular transport service provider.

Data Analysis

Factor Analysis

The Kaiser-Meyer-Olkin (KMO) value of 0.883 and significant Bartlett's Test of Sphericity strongly supported the use of factor analysis in order to extract independent variables guiding clients while selecting a particular transport service provider. (Refer Table 1)

Table 1 - KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.883
Bartlett's Test of Sphericity	Approx. Chi-Square	1889.308
	Df	153
	Sig.	.000

An exploratory principle component factor analysis was done using SPSS 15.0. Varimax rotation was used and factor loading 0.5 or above on the items was taken into consideration. All 18 items related to various dimension of transport service providers were used for the factor analysis, which yielded four factors (with Eigen value more than 1) explaining 75.424 percent of variance as shown in Table 2.

Table 2 - Rotated Component Matrix

Factors	**Items**	Factor Loadings	Variance Explained
Core Value	Material handling	.849	35.246%
	Network	.827	
	Price	.858	
	Regularity of service	.853	
	Safety	.905	
	Speed	.896	
	Timely service	.937	
	Track trace	.715	
Value Added Services	Credit facility	.624	22.283%
	Flexible timing	.590	
	Flow of communication	.826	
	IT implementation	.849	
	Marketing	.811	
Brand Image	Company history	.610	10.061%
	Ease of use	.604	
	Fancy terminology	.686	
Assurance	Twenty four hour service	.599	7.834%
	Association companies	.888	
Total Variance Explained (Percentage)			75.424%

The four major independent sets of factors associated with selecting a transport service provider are extracted from the factor analysis and explained in brief:

Core Values: The items loaded on this factor revealed that core values/ basic benefits act as the life blood for a transport service provider. This factor emerged as the most important factor that guide clients' decision at the time of selecting a particular transport service provider. It includes material handling, network, price, regularity of service, safety, speed, and trace track. This factor accounted for 35.25 percent of variance.

Value Added Services: This factor emerged as second most important factors and contributes 22.28 percent of variance. The variables like credit facility, fancy terminology, IT implementation and marketing are showing significant loading on this factor. This factor is named as 'Value added services', as it revealed that clients also consider value added services offered by transport service provider at the time of selecting a particular transport service provider. Factor analysis exposed the importance of offering value added services to the clients apart from core service.

Brand Image: The importance of branding is inevitable these days as clients prefer to associate themselves with premium brands. Three items (viz. company history, ease of use & fancy terminology) attempted to differentiate one's offering from competitors are loaded on this component. This analysis supported the investment of firms on brand building activities and this factor accounts for 10.06 percent of variance.

Assurance: Two items related with assurance i.e. twenty four hour service & association significantly loaded on this component and accounts for 7.38 percent of variance. In order to ensure quality service to the clients, transport service providers should have accreditation from organization like ISO and Six Sigma.

Limitations and Future Research

Although this exploratory research is based on the primary data collected from clients of different categories viz. traders, manufacturer and C&F agents; the findings cannot be generalized, as this research is confined to the study of Kolkata based clients. This study successfully identified various factors and its importance at the time of selecting a transport service provider; future research can be undertaken to examine the impact of these factors on clients' satisfaction. This can be done with the help of a multiple regression model considering customer satisfaction as a dependent variable as various factors viz. Core values, Value added services, Brand Image and Assurance as independent variables. At the same time, in order to make this study more generalized and exhaustive, data can be collected from clients from various industries located as different part of the country.

Conclusion

This study has clearly revealed that clients select transport service after evaluating various dimensions viz. core values, value added services, brand image and Assurance that differentiate a particular transport service provider from its competitors. Study also revealed that there is significant impact of freight price, regularity of service, IT implementation and marketing activities on the clients' attitude towards a particular transport service provider. At this backdrop, a transport service provider should design all those attributes vary carefully on which clients select their transport service provider. Reorganization of these attributes is very important for a transport service provider to develop more effective strategies to better serve clients.

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Impact of Disinvestment on the Financial and Operating Performance of Competitive and Monopoly Units of Indian Public Sector Enterprises

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Abstract

The Government of India is following a policy of economic liberalization after 1991 and concept of disinvestment has been more or less accepted by at least all the parties whenever they are in Government. Disinvestment has supposed to be the tool in the hands of Government to improve the functioning and profitability of public sector enterprises and also raise funds to mitigate its fiscal deficits. Regarding utilization of disinvestment proceeds, there has been apprehension about its proper use. In the present *study an attempt has been made to examine the impact of disinvestment which took place during 1985-86 to 2004-05 on the performance of selected units of competitive and monopoly units of Indian PSEs. The grouping of enterprises has been done on the basis of their contribution to total industrial production/service. Operating performance of competitive firms based on sales has shown decline in the profitability during the post-disinvestment period. On the other hand, monopoly firms have been efficient in generating profit and controlling their expenditures.*

Keyword

Disinvestment, Liberalization, Privatization, Competitive, Monopoly, Public Sector Enterprises,

INTRODUCTION

Public sector undertakings in India were viewed as a mechanism for structural transformation of the economy and for growth with equity and social justice. Eventually, the perception that public sector should acquire the commanding heights of the economy led to Government involvement in diverse areas of economic activity, many of which could have been performed by the private sector (Singh, V.S. 1986). The public sector thus lost its original role and strategic focus, which shifted to supply of goods and services on subsidized rates and creation of employment. This led to inefficiencies, neglect of resource mobilization for modernization, increased dependence on unproductive borrowings, lack of motivation to improve efficiency and increase in fiscal deficit of the Government. After 1991 the Government of India is following a policy of economic liberalization and concept of disinvestment has been more or less accepted by at all the parties whenever they are in Government. The fact that the parties changed their tune when they are out of power probably is only an occupational hazard of our Indian style of democracy. The process of disinvestment in India began in 1992 under the aegis of new economic liberalization policy put forward then Finance Minister, Dr. Manmohan Singh. The Disinvestment Commission was formed initially headed by Shri G.V. Ramakrishna and recently it has been reconstituted. At present, there is a separate a Department of Disinvestment.

Disinvestment has supposed to be the tool in the hands of Government to improve the functioning and profitability of public sector enterprises and also raise funds to mitigate its fiscal deficits. However, over the past decade, this exercise has been plagued by criticism and controversies and has not achieved desired results for the Government because of political bickering (Rao, Prakasha & Ramana). The question always arises in the context of unshackling the public sector as to why the public sector enterprises should be in change. There is a general perception that the same people become efficient if they are in the private sector and somehow when they are under the public sector, their human capital remains less productive. However, privatization without policy reforms may not be able to achieve efficiency, cost control and proper pricing. The benefits of privatization flow through greater competition leading to cheaper and better products and services. Public monopolies, therefore, should not yield place to private ones. With the result, it remains unknown as to where this money has been used. So the Government has not provided any clear-cut statement on this issue. Regarding utilization of disinvestment proceeds, there has been apprehension about its proper use. Either it should be used for the repayment for Government debt, which was initially taken to finance these PSEs, or this money should be used for restructuring loss-making PSEs. (Gangadhar, V, & Yadagiri, M., 2003)

In the past, some studies have been conducted to study the impact of disinvestment on public sector, these are:

Rao, Prakasha and Ramana (2001), concluded in his study "Disinvestment: An Indian Perspective" that public sector was thought of as engine for self reliant economic growth and development.

Tiwari and Prabhakar (2001) conducted a study on "Disinvestment in Public Sector Enterprises (PSEs) in India". This paper aims at questioning the very purpose, procedure and timing of disinvestment in PSEs in India.

Gangadhar and Yadagiri (2003), made an attempt on "Disinvestment in Public Sector Enterprises". The study of disinvestment of central Government public sector enterprises is aimed at examining the following: firstly, to analyze the objectives, existing procedures, administrative machinery for disinvestment and to present the progress and prospects of disinvestment.

Chundawat, Bhanawat and Mehta (2005), conducted a study on "Disinvestment and Corporate Performance." The main objective of this paper is to study the impact of the disinvestment on the corporate performance of the public sector undertakings.

The present research paper is divided into four sections. The present section deals with introduction and following section describes the research methodology of the research study. The third section makes the analysis of the data and interpretation thereof and the last section gives the concluding remarks.

NEED AND SCOPE OF THE STUDY

At the time of independence, it was felt that political independence without economic self-reliance would be detrimental to the country's sovereignty and autonomy in policy-making. Hence, in the three decades following independence, the public sector played a commanding role in the economy. However, after the initial exuberance, a number of problems began to manifest themselves in many of the public enterprises. Serious problems were observed in the insufficient growth in productivity, poor project management, overmanning, lack of continuous technological upgradation and inadequate attention to R & D and human resource development. Economic compulsions led to the adoption of new approach towards the public sector in the early nineties. In July 1991, the Government issued statement on industrial policy, which states that in order to raise resources and encourage wider public participation, a part of the Government's shareholding in the public sector would be offered to mutual funds, financial institutions, general public and workers. In the present study, an attempt has been made to examine the impact of disinvestment which took place from the year 1985-86 to 2004-05 on the performance of selected competitive and monopoly units of Indian PSEs. It will throw light on whether the envisaged goal of improvement in performance was in fact achieved. The present study has been confined to study the impact of disinvestment on the financial and operating performance of Indian public sector enterprises which are divided into two groups: those who are operating in competitive environment (18) and those who are functioning in monopoly environment (12). The grouping of enterprises has been done on the basis of their contribution to total industrial production/services. (Naib, Sudhir, 2004) Competitive group includes enterprises in areas where private sector also a presence.

There are 16 sectors of Indian public sector enterprises in which Government has made disinvestment. In order to study the impact of disinvestment on public sector enterprises, competitive and monopoly units of Indian PSEs have been selected. The sector and the units along with their nature, percentage of disinvestment and percentage of Government holding after disinvestment in Indian PSEs is given in Table 1.

Table 1

Government Share after Disinvestment in the Public Sector Enterprises of India

Sector and Units	Nature of Enterprise	Percentage of Disinvestment	Percentage of Total Govt. Holding after Disinvestment
Enterprises Manufacturing/Producing Goods			
1. Steel			
(a) Steel Authority of India Ltd.	Competitive	14.18	85.82
2. Minerals & Metals			
(a) Hindustan Copper Ltd.	Competitive	1.24	98.76
(b) Hindustan Zinc Ltd.	Competitive	24.08	75.92
(c) Kudermukh Iron & Ore Co. Ltd.	Competitive	1.00	99.00
(d) National Aluminum Co. Ltd.	Competitive	12.85	78.38*
(e) National Mineral Development Co.	Monopoly	1.62	96.36*
3. Petroleum			
(a) Bharat Petroleum Corporation Ltd.	Monopoly	33.80	66.20
(b) Bongaingaon Refinery and Petro Chemical Ltd.	Monopoly	25.54	74.46
(c) Cochin Refinery Ltd.	Monopoly	6.12	55.04*
(d) Gas Authority of India Ltd.	Monopoly	17.03	82.97
(e) Hindustan Petroleum Corporation Ltd.	Monopoly	48.94	51.06
(f) Indian Oil Corporation Ltd.	Monopoly	18.74	81.14*
(g) Madras Refineries Ltd.	Monopoly	16.92	53.80*
(h) Oil and Natural Gas Corporation	Monopoly	16.38	83.62
4. Fertilizers			
(a) Fertilizers & Chemicals Ltd.	Competitive	1.70	97.30
(b) National Fertilizers Ltd.	Competitive	2.35	97.65
(c) Rashtriya Chemicals & Fertilizers Ltd.	Competitive	7.50	92.50
5. Chemical & Pharmaceuticals			
(a) Hindustan Organic Chemical Ltd.	Competitive	41.39	58.61
(b) Indian Petrochemicals Corporation Ltd.	Competitive	40.05	59.95
6. Heavy Engineering			
(a) Bharat Heavy Electrical Ltd.	Competitive	32.28	67.72
7. Medium and Light Engineering			
(a) Bharat Electronics Ltd.	Competitive	24.14	75.86
(b) Andrew Yule & Co. Ltd.	Competitive	9.60	62.84*
(c) Hindustan Machine Tolls Ltd.	Competitive	8.44	91.56
(d) Indian Telephone Industries	Competitive	22.98	76.67*
8. Transport Equipment			
(a) Bharat Earthmovers Ltd.	Competitive	39.19	60.81
Enterprises Rendering Services			
9. Transport Services			
(a) Container Corporation of India Ltd.	Monopoly	36.92	63.08
(b) Dredging Corporation of India Ltd.	Competitive	1.44	98.56
(c) Shipping Corporation of India Ltd.	Competitive	19.88	80.12
10. Telecommunication Services			
(a) Mahanagar Telephone Nigam Ltd.	Monopoly	43.80	56.20
(b) Videsh Sanchar Nigam Ltd.	Monopoly	47.00	53.00

* The balance equity is held by state Governments/other collaborators.

OBJECTIVES OF THE STUDY

The following objectives have been visualized for the present study:

- to study the impact of disinvestment on the financial performance of competitive and monopoly units of Indian PSEs in terms of financial strength and corporate liquidity; and
- to study the impact of disinvestment on the operating performance of competitive and monopoly units of Indian PSEs based on sales, investment, employment and asset usage.

HYPOTHESIS

To achieve these objectives the following hypothesis has been tested:

- There is no significant impact of disinvestment on the financial and operating performance of the units.

METHODOLOGY

For the purpose of the present study, secondary data have been used. The secondary data has been collected from published reports of selected Indian public sector enterprises and records of Government of India. The data drawn from various sources has been analyzed with the help of various accounting tools and techniques. Statistical test has also been applied in appropriate context. Ratio analysis, mean, standard deviation, co-efficient of variation and student‘t’ test are used to analyze the sample data.

Measure of Central Tendency or Averages Mean

To find out average of various financial ratios of the competitive and monopoly enterprises for the given period w.e.f. 1985-86 to 2004-05, arithmetic mean has been used.

$$\overline{X} = \frac{\sum x}{N}$$

Standard Deviation

In order to find out the absolute dispersion in the various financial ratios over the period of 20 years, standard deviation has been applied on the data collected through various surveys of Public Sector Enterprises (PSEs).

$$\sigma = \sqrt{\frac{\sum x^2}{N}}$$

Co-efficient of Variation

Co-efficient of variation has been used to study the fluctuation in various financial and operating ratios over the study period.

$$C.V. = \frac{\sigma}{\overline{X}} \text{ X } 100$$

t-test

It has been used to test the difference between the mean of financial and operating performance based on different ratios of competitive and monopoly enterprises before and after disinvestment.

$$t = \frac{\overline{d}\sqrt{n}}{S}$$

The value of S is calculated as follows:

$$S = \sqrt{\frac{\Sigma\left(d-\bar{d}\right)^2}{n-1}} \quad \text{or} \quad \sqrt{\frac{\Sigma d^2 - n\left(\bar{d}\right)^2}{n-1}}$$

If the calculated value of t exceeds to t 0.01 percent, we say that the difference between various means is significant at 5 percent level, if it exceeds t 0.01 percent, the difference is significant at 1 percent level. If the calculated value of t is less than the table value at 5 percent and 1 percent level, we conclude that the difference between two means is not significant and hence the sample might have been from a population having same means.

RESULTS AND DISCUSSION

Operating performance of competitive firms based on sales (Table 2) has shown decline in the profitability during the post-disinvestment period due to their failures in controlling their various expenditures ratios in relation to sales. These firms are BEML, HOCL, RCFL, ITI, HCL, HZL and AYCL. In addition, there is a decline in their expenditure of R & D programmes, it is again a matter of great concern. Without making provision for their R & D programmes, it is not possible to developed new methods of production and cost control. In order to compete in this global competition the decline in the profitability should not be continued in the long-run. The change is statistically significant at 1 percent level of significance in the case of manpower cost and excise duty to net sales ratios. The examination of the operating performance based on investment reveals that there is a decline in the mean score of return on net capital employed ratio and upward movement in the mean score of return on total assets. It shows that the management of these firms failed in the efficient management of their capital after partial disinvestment. It has been recorded for units engaged in chemicals sector, fertilizers sector and transport sector. In this era of global competition and to satisfy their investors, the management of these firms will have to improve their efficiency. However, the change is not statistically significant in any case.

Table 2

Financial and Operating Performance of Competitive Companies

Ratio	Pre-disinvestment Era			Post-disinvestment Era			t-value	P
	Mean	S.D.	C.V.	Mean	S.D.	C.V.		
OPERATING PERFORMANCE BASED ON SALES								
Gross Profit Ratio	13.34	11.54	86.50	12.02	15.43	128.36	-0.84	0.397
Net Profit Ratio	5.34	11.16	208.98	4.01	15.99	398.75	-0.83	0.402
Operating Profit Ratio	13.61	11.4	83.76	12.71	14.79	116.36	-0.59	0.551
Material Cost/Net Sales	40.18	17.96	44.69	42.12	47.43	112.60	0.42	0.671
Manpower Cost/Net Sales	12.81	7.14	55.73	16.18	9.77	60.38	3.29	0.001*
R&D Expenditure/Net Sales	1.19	1.64	137.81	0.97	1.42	146.39	-1.09	0.276
Excise Duty/Net Sales	6.99	5.93	84.83	9.64	6.43	66.70	3.39	0.001*
OPERATING PERFORMANCE BASED ON INVESTMENT								
Return on Total Assets	7.54	3.99	52.91	7.72	7.89	102.20	0.23	0.813
Return on Net Capital Employed	13.88	8.29	59.72	12.09	18.92	156.49	-1.02	0.306
OPERATING PERFORMANCE BASED ON EMPLOYMENT								
Net Profit Per Employee	49.17	93.98	191.13	270.48	1088.16	402.30	2.14	0.033**
Gross Profit Per Employee	96.24	124.42	129.28	422.01	1112.25	263.56	3.08	0.002*
Net Sales Per Employee	611.46	494.26	80.83	2281.59	3914.39	171.56	4.47	0*
FINANCIAL STRENGTH								
Debt Equity Ratio	2.3	2.44	106.08	5.12	16.34	319.14	1.95	0.051**
Proprietory Ratio	39.22	18.18	46.35	36.17	22.82	63.09	-1.3	0.192
Solvency Ratio	60.38	23.75	39.33	63.83	23.44	36.72	0.16	0.868
Fixed Assets to Net Worth	156.59	194.04	123.92	198.23	799.97	403.56	0.58	0.56
Interest Coverage Ratio	3.67	12.07	328.88	44.33	262.83	592.89	1.75	0.08
CORPORATE LIQUIDITY								
Current Ratio	2.26	0.91	40.26	2.14	0.96	44.85	-1.15	0.248
Liquid Ratio	1.26	0.66	52.38	1.44	0.86	59.72	2.01	0.045**
ASSET USAGE								
Inventory Turnover Ratio	5.92	11.62	196.28	9.72	18.27	187.96	2.12	0.035**
Inventory Conversion Ratio	145.87	81.35	55.76	104.02	60.14	57.81	-5.53	0*
Debtors Turnover Ratio	7.67	6.19	80.70	6.99	7.84	112.16	-0.84	0.401
Average Collection Period	86.54	69.77	80.62	104	80.04	76.96	2.06	0.039**
Fixed Assets Turnover Ratio	1.68	1.27	75.59	2.62	2.43	92.748	4.07	0*
Working Capital Turnover Ratio	4.37	14.36	328.60	1.76	159.85	9082.38	-0.99	0.319
Capital Turnover Ratio	106.21	53.34	50.22	119.83	60.12	50.17	2.13	0.034**

* Significant at 0.01 level, ** Significant at 0.05 level

Source: Public Sector Enterprises (PSEs) Survey, Various Issues

Table 3

Financial and Operating Performance of Monopoly Companies

Ratio	Pre-disinvestment Era			Post-disinvestment Era			t-value	P
	Mean	S.D.	C.V.	Mean	S.D.	C.V.		
OPERATING PERFORMANCE BASED ON SALES								
Gross Profit Ratio	17.1	25.45	148.83	18.61	14.98	80.49	0.56	0.572
Net Profit Ratio	8.41	25.07	298.09	11.71	9.61	82.06	1.42	0.156
Operating Profit Ratio	18.1	26.14	144.41	18.78	15.12	80.51	0.24	0.804
Material Cost/Net Sales	62.13	33.49	53.90	71.9	27.72	38.55	2.07	0.039 **
Manpower Cost/Net Sales	5.24	9.51	181.48	4.4	5.98	135.90	-0.8	0.423
R&D Expenditure/Net Sales	0.26	0.46	176.92	0.16	0.27	168.75	-1.77	0.078
Excise Duty/Net Sales	14.04	15.77	112.32	10.76	10.48	97.39	-1.54	0.125
OPERATING PERFORMANCE BASED ON INVESTMENT								
Return on Total Assets	12.41	7.79	62.77	14.78	8.71	58.93	2.07	0.039 **
Return on Net Capital Employed	30.98	34.53	111.45	29.56	20.92	70.77	-0.39	0.697
OPERATING PERFORMANCE BASED ON EMPLOYMENT								
Net Profit Per Employee	281.43	46.61	16.56	1251.32	1358.75	108.58	6.14	0*
Gross Profit Per Employee	496.89	550.47	110.78	1991.88	2047.67	102.80	6.27	0*
Net Sales Per Employee	4426.29	4664.63	105.38	16774.88	15911.99	94.85	6.67	0*
FINANCIAL STRENGTH								
Debt Equity Ratio	1.94	1.8	92.78	1.48	1.25	84.45	-2.28	0.023 **
Proprietory Ratio	43.67	18.25	41.79	48.97	17.11	34.93	1.98	0.048 **
Solvency Ratio	56.33	18.61	33.04	51.03	17.98	35.23	-2.16	0.031 **

Fixed Assets to Net Worth	134.42	94.29	70.15	99.35	38.74	38.99	-3.98	0*
Interest Coverage Ratio	51.58	286.73	555.89	996.98	8513.32	853.91	1.01	0.313
CORPORATE LIQUIDITY								
Current Ratio	2.41	5.11	212.03	1.69	0.59	34.91	-1.68	0.094
Liquid Ratio	1.86	5.19	279.03	1.29	0.71	55.03	-1.29	0.197
ASSET USAGE								
Inventory Turnover Ratio	41.75	133.07	318.73	346.17	1469.26	424.43	1.88	0.061
Inventory Conversion Ratio	58.88	45.06	76.52	36.08	27.56	76.38	-4.75	0*
Debtors Turnover Ratio	43.02	56.47	131.26	43.89	66.69	151.94	0.1	0.92
Average Collection Period	47.5	75.19	158.29	36.07	59.61	165.26	-1.27	0.204
Fixed Assets Turnover Ratio	3.22	3.03	94.09	3.16	2.11	66.77	-0.18	0.856
Working Capital Turnover Ratio	14.88	34.24	230.10	65.09	625.43	960.86	0.73	0.461
Capital Turnover Ratio	294.7	266.84	90.54	267.9	192.94	72.01	-0.88	0.379

* Significant at 0.01 level

** Significant at 0.05 level

Source: Public Sector Enterprises (PSEs) Survey, Various Issues

The analysis of the operating performance based on employment reveals that there is a remarkable increase in the contribution of the employees in the profitability and the efficient utilisation of their resources. It has already been find out in the previous study that after facing the competition in the market, the management of these firms spending more on their development and training programme (Naib, Sudhir, 2004). It is good for their growth and development in this global market. As far as their financial strength is concerned, it has been found that the dependence of these firms on outsiders' funds has increased significantly in the post-disinvestment period as compared to the pre-disinvestment period. In other words, the management of these firms relied more on debt as compared to the shareholders' funds. It has been recorded for SAIL, BHEL and HMT. The profit of these firms has been enough in order to meet out their fixed interest charges during the entire period of study. It is the duty and responsibility of the management of these firms to decide the use of their debt capital in order to finance its plans. However, the change is significant at 5 percent level of significance only in the case of debt equity ratio.

As far as the corporate liquidity of the competitive firms is concerned, it has found that there is a decline in the mean score of current ratio, but there is an upward movement in the mean score of liquid ratio in the post-liberalisation era. The firms who failed in the efficient management of their working capital are HOCL, NFL, AYCL, HMI, HCL and HZL and the firms who successfully managed their working capital are SAIL, BHEL, SCIL and BEL. But in order to improve their short-term solvency position and meet out their current obligations in time, the management of these firms has to manage their working capital efficiently. On applying t-test, it is found that the change is significant at 5 percent level of significance only in the case of liquid ratio. Studying the asset usage reveals that majority of the competitive firms are efficient in the management of their stock and debtors. It shows that the management of these firms has been efficient in the conversion of stock into sales and early recovery of their debts. In order to achieve improvement in the overall efficiency, there must be proper utilisation of their assets and resources. In this way, they can make proper utilisation of their scarce resources and. The change is significant at 1 percent level of significance in the case of inventory conversion period and fixed assets turnover ratios and significant at 5 percent in the case of inventory turnover, average collection period and capital turnover ratio.

Table 3 reveals that there is an upward movement in the mean scores of gross profit, net profit and operating profit ratio in the post-disinvestment period as compared to the pre-disinvestment period in case of monopoly firms. As far as various expenditure ratios of monopoly firms are concerned, there is a decline in the mean score of manpower cost in relation to net sales. It shows that monopoly firms have been efficient in generating profit and in controlling their expenditure. But it is not satisfactory and statistically significant. As a whole, they failed in the case of their material cost during the post-disinvestment period. It has been recorded that NMDC, DNGC, HPCL have failed in controlling their material cost. The decline in the mean score of R & D expenditure to net sales is a matter of great concern. The examination of the mean score of excise duty to net sales indicates their less contribution in the economic development of the nation in the form of excise duty during the post-disinvestment period. The change is statistically significant at 5 percent level of significance only in the case of material cost to net sales ratio. The examination of the operating performance of the monopoly firms based on investment reveals that all these firms have been efficiently utilising their resources during the post-disinvestment period. But in the case of their capital employed management, they failed in their efficient management. It is due to the inefficient management of their capital employed by CRL, CCIL and VSNL at individual level. In order to satisfy their investors and shareholders', the proper utilisation of their resources must be efficient and effective. On applying t-test, it is found that the change is significant at 5 percent level of significance only in the case of return on total assets ratio.

Analysis of the operating performance based on employment reveals that there is a remarkable increase in the contribution of the employees in the development and in the profitability of the monopoly firms. It may be possible due to the competition in the market, because before disinvestment in these firms they had their monopoly in their business. The change is significant at 1 percent level of significance in all the ratios. As far as their financial strength is concerned, it has been found that there is a decline in the mean scores of debt equity and solvency ratios during the post-disinvestment period. It has been recorded for ONGC, HPCL and VSNL at individual level. The significant decline in the mean score of fixed assets to net worth ratio has been possible due to the petroleum companies at individual level. In other words, their shareholders' funds have been sufficient in order to finance their fixed assets. It is good for their long-term solvency position in this global market. The change is significant at 1 percent level of significance in the case of fixed assets to net worth ratio and is at significant 5 percent in the cases of debt equity, proprietory and solvency ratios.

Study of the corporate liquidity of the monopoly firms reveals that these firms have failed in the efficient management of their working capital. The decline in the mean score of current ratio has been possible mainly due to decline in the mean score of current ratio of BORL, CRL, CCI and MTNL firms during the post-disinvestment period. It shows that after disinvestment in these firms, the management of these firms failed in the management of their working capital. In other words, they have not been in position to meet out their current obligations in time. However, the change is not significant in any case. As regards the asset usage of monopoly firms, it has been found that there is an upward movement in the mean scores of debtors turnover, inventory turnover and working capital turnover ratios in the post-disinvestment period as compared to the pre-disinvestment period. It shows that these monopoly firms have been efficiently managing their debtors, inventory and working capital. In other words, the management of these firms is efficient in the conversion of stock into sales and early collection of their debts. In case of management of their fixed assets and capital, they failed. On applying t-test, it is found that the change is significant at 1 percent level of significance only in the case of inventory conversion period ratio.

CONCLUSION

Operating performance of competitive firms based on sales has shown decline in the profitability, but monopoly firms shows an improvement in their profitability during the post-disinvestment period. It shows the inefficiency of competitive firms in controlling their various expenditures and efficiency of monopoly firms in controlling their various expenditures. As far as their dependence on outsiders' funds is concerned, it has been found that competitive firms relied more on outsiders' funds but monopoly firms relied more on shareholders funds. The management of the competitive and monopoly firms is efficient in the management of their inventory and early collection of their debts. In order to develop new methods and techniques of production there should be more provision on their R & D programmes. It is suggested that in profitable enterprises, equity should also be offered to the public and employees. This will give the disinvestment process better acceptability. Disinvestment can lead to increase the efficiency through better utilization of resources but reckless privatization may not provide the ultimate solution for longer period of time. Efficiency may also be achieved by changing the quality of management and not only by changing the ownership. However, it is suggested that disinvestment programme should be so executed so as to encourage autonomy in management with accountability, broad based ownership and improved the competition.

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HUMAN RESOURCE ACCOUNTING PRACTICES IN SELECTED COMPANIES IN INDIA

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Abstract

Recently we witnessed a global transition from manufacturing to service base economies. In manufacturing organisation the physical asset likes plant, machinery, material etc. are of important. In service industry the total worth depends mainly on the skills of its employees and the service they render. The success of these organizations is contingent on the quality of their human resource - its knowledge, skills, competence, motivation and understanding of the organizational culture. Hence, it is imperative for the firm to understand the importance of the human and therefore record it in the books of accounting. In present corporate world whether it belongs to manufacturing, Trading or Service human is at center point. This study focuses on Human Resource Accounting (HRA) Practices of selected private and public limited companies.

INTRODUCTION

HRA is a management tool which is designed to assist senior management in understanding the long term cost and benefit implication of their HR decision so that better business decision can be taken. If such accounting is not there , then the management runs the risk of taking decision that may improve profit in the short run but may also have severe repercussions in future.HRA is an attempt to identify and report investment made in the human resource of an organization that are not presently accounted for under conventional accounting practice.

"Human Resource Accounting is the measurement of the cost and value of the people for the organization" -Eric flamholtz of University of California, Los Angeles.

"Human Resource Accounting is the process of identifying and measuring data about human resource and communicating this information to interested parties". - American Accounting Society Committee on HRA

RESEARCH METHODOLOGY

Scope

The Scope of the study title "Human Resource Accounting Practices in Selected Companies in India" limited to Human Resource Accounting Practices of companies for the period of five year commencing from 2003-04 to 2007-08. The research has identified various reporting practices of Human Resource Accounting in its annual report. Reporting Practices of Selected private and Public companies has been explored. Two companies from private sector and two companies from public sector were taken as sample and comparative study has also done.

Objective of the Study

1. To examine the practices followed by selected companies in India.
2. To compare and contrast human resource valuation methods followed by selected Public and Private Companies in India.
3. To give suggestions for improvement in HRA Practices in Selected companies in India

Sample Selection

Purposive Sampling technique is used for the selection of sample units. Samples are taken from both public and private sector companies. From public sector two companies selected i.e. BHEL and SAIL and two companies from private sector i.e. INFOSYS and ACC. All Companies are taken on the basis of its market capital as on 1.1.2009.

Source of Data

An annual report, websites, different books of management accounting & personal management, previous research findings (Thesis and Dissertations) has been used for source of secondary data.

Analysis of Data

The collected data have suitably classified and tabulated in the form of table and graph with the appropriate statistical techniques S.P.S.S.15 software has used for necessary statistical tests. The data analysis and conclusion were drawn on the basis of parametric tests at 5% level of significance.

DISCLOSURE RELATING TO HUMAN RESOURCE ACCOUNTING

BHEL

BHEL had started providing information related to Human Resource Accounting (HRA) in its annual report from the financial year 1974-75 by using Lev and Schwartz model. It is the first company in India who provided HRA. BHEL also started considering efficiency factor for the purpose of Human Resource Valuation from the year 1980-81.

BHEL divides total employees of the organization according to group wise, category wise and also as per physically challenged employee. The company followed the 12% as discount rate. Company provide the information regarding particular of employee under section 217(2A) of the companies Act, 1956 with companies rules 1975.

BHEL was reporting information like total No of Employee, Value Added, Employee Remuneration and Benefit, Value Added per Employee, Turnover per Employee. It also calculated the different ratio related to Human Resource.

SAIL

SAIL started valuation and reporting of its human resource from the financial year 1983-84.SAIL follows the human resource valuation model suggested by Lev and Schwartz by accommodating some adjustments suggested by Flamholtz and Jaggi and Lou. SAIL uses the constant rate of discounting the future expected return at 15%.Company provide the information regarding employee under section 217(2A) of the Companies Act 1956 with Companies Rules 1975.SAIL provides the information regarding No of Employee, as well as Category wise Distribution of Employee . Company also provides the information about Turnover, Value Added, and Capital Employed, EPS, Net worth per Share, Employee Remuneration and Benefit. It also communicate different ratio like PAT/Average Capital Employed.

INFOSYS

Infosys provide additional information of the firm from intangible assets score sheet, Human Resource Accounting and Value- Added statement. Infosys provide the information regarding particular of employees under the provision of section 217(2A) of the Companies Rules 1975. Infosys used the Lev & Schwartz model. The future earning have been discounted at 14.09 %, 13.63%, 12.96%, 14.97% and 13.32% in the year 2003-04,2004-05,2005-06,2006-07 and 2007-08 respectively. Infosys provide the information like Income, value added, No of Employee, Age wise Distribution and Category wise Distribution of Employee, Net Worth, EPS, Economic Value Added, Value of Human Resource, Value of Human Resource per Employee and also present the ratio like Value Added/Human Resource Value, Return on Human Resource Value in percentage.

ACC

ACC started valuing and reporting the information related to human resource from the financial year 1983-84 by using Lev and Schwartz model with adjustments suggested by Flamholtz. It provides the information regarding No of Employee, Basic Earnings per Share, Capital Employed, and Earning per Share, Total Asset and also Employee Cost. Company had not reported the discount rate i.e. rate at which the future expected return was discounted.

For the purpose of comparative evaluation, 14 variables has been indentified like disclosure of value added, Economic Value added (EVA) etc.

DISCLOSURE OF SELECTED VARIABLE FOR HR RELATED INFORMATION BY SELECTED COMPANIES.

D= Disclosed ND= Not Disclosed

Disclosure of Variables	Company				Total
	BHEL	SAIL	INFOSYS	ACC	
Value Added	D	D	D	ND	3
No of Employee	D	D	D	D	4
EVA	D	ND	D	ND	2
Value of HR	ND	ND	D	ND	1
value of HR per Employee	ND	ND	D	ND	1
Value Added per Employee	D	ND	ND	ND	1
Valuation Model Used	D	D	D	ND	3
Discount rate applied	D	D	D	ND	3
Age wise Distribution	ND	ND	D	ND	1
Group Wise Distribution	D	D	D	ND	3
Gender Wise Distribution	ND	ND	D	ND	1
Turnover per Employee	D	ND	ND	ND	1
Employee cost	ND	ND	D	D	2
Total Identified Variables	8	5	11	2	26

Table-1 Disclosure of Various Variables

Table-1 shows the disclosure of identifies variable from the annual reports of selected companies for Human Resource related disclosure.

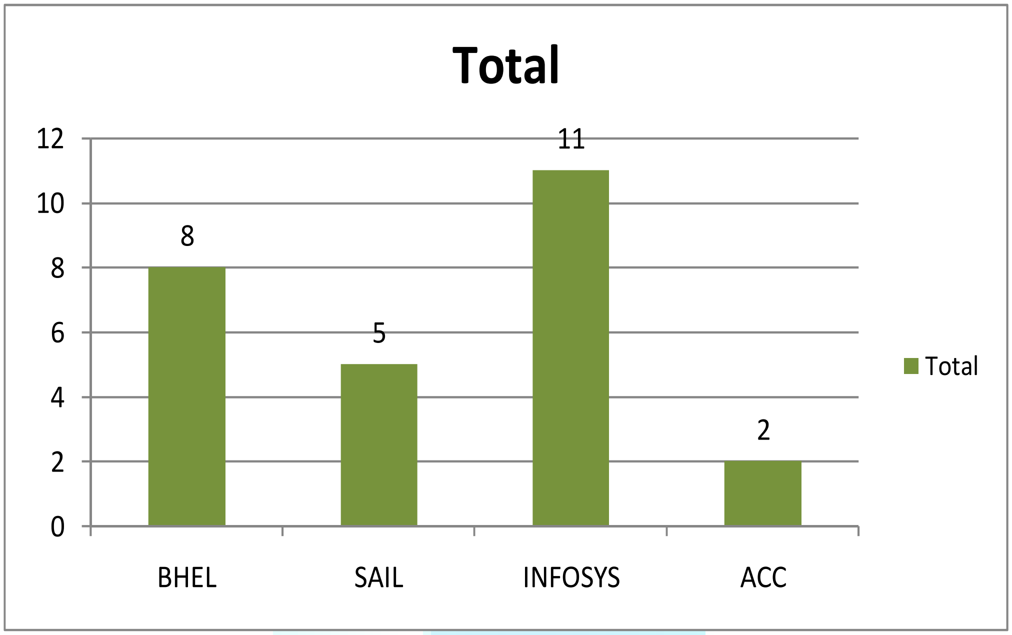

Chart -1 Disclosure of Various Variables

Table-1 and Chart-1 shows Human Resource Accounting disclosure practices by BHEL, SAIL, INFOSYS, and ACC. The table helps to understand which company provides more information regarding its HR. It can be seen that INFOSYS provides 11 type of information (i.e. 84.6%) out of 13 listed information. BHEL disclose the 8 type of information (i.e. 61.53 %), than comes SAIL, it provide the 5 type of information (i.e. 38.46%) and ACC provide only 2 type of information (15.38%).

HYPOTHESIS

Ho: There is no significance difference between average disclosures of selected companies.

H_1: There is significance difference between average disclosures of selected companies

Testing of Hypothesis

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Average Disclosure	4	49.995	29.79099	14.89549

One-Sample Test						
	T	df.	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
	Lower	Upper	Lower	Upper	Lower	Upper
Average Disclosure	3.356	3	0.044	49.995	2.5909	97.3991

One Sample t test was conducted to test the hypothesis. As the p value of test is 0.044 (less than 0.05) there for we accept the alternative hypothesis i.e. there is significant difference between the average disclosures of selected companies, and reject the null hypothesis.

SUGGESTIONS

Suggestion to sample companies

1. ACC Ltd. Should provides more information regarding its Human Resource. ACC Ltd. Should include value of HR, Value of HR per Employee, GroupWise Distribution, Gender wise Distribution , Turnover per Employee etc. in its annual report.

2. There is no clarification regarding Human Valuation Model used and discount rate applied by ACC Ltd. in its annual report. So, company should disclose clearly for the better understanding.

3. BHEL and SAIL Ltd. Should also report for Value of HR, Value of HR per Employee, Age and Gender Wise distribution in its annual report.

Suggestion to Government

1. The measurement is subjective as methods for this purpose, so government should suggest specific model that is acceptable to all companies.

2. The government should made mandatory to value and disclose HR related information in its annual report.

3. To motivate companies for HRA, government should provide incentives like Subsidy, Tax exemption.

LIMITATION OF THE STUDY

The following are the limitations of the study.

1. The said study is based on secondary data only, collected from annual reports of companies. The limitation is of secondary data influence the study.

2. The study period of said study is limited to five year only i.e. 2003-04 to 2007-08. Only four companies viz., BHEL, SAIL, INFOSYS and ACC have been considered for the study of Human Resource Accounting Practices.

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Annual Report

Annual report of BHEL (2003-04 to 2007-08)

Annual report of SAIL (2003-04 to 2007-08)

Annual report of INFOSYS (2003-04 to 2007-08)

Annual report of ACC (2003-04 to 2007-08)

Prescribers Segmentation

Strategy for Pharmaceutical Corporations Success

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Abstract

Segmentation of Prescribers classifies prescribers into different groups which enables the pharmaceutical marketers to understand the markets from prescriber's viewpoint. For marketing managers a clear reading of prescriber's needs, behavior, perceptions and prescribing processes is required to formulate desired marketing strategies. Understanding customers is more important than ever in today's competitive economy, where declining customer loyalty and high customer turnover continue to erode profit margins. Without accurate, verifiable segmentation of customers with respect to value, strategic

decision makers cannot get the information they need to evaluate and execute strategies for improving customer profitability and the efficiency of marketing campaigns. This paper is an attempt to study the different basis used by prescription drug marketers and professionals to segment the prescribers. Furthermore, to suggest the best segmentation strategy so as to improve the performance of pharmaceutical companies.

Introduction

In today's fast changing business environment, the segmentation plays a vital role in corporate success by helping companies anticipate and deploy strategic responses to external threats and opportunities. The liberalization, Globalization and development of technology at fast pace has thrown open number of challenges and opportunities for pharmaceutical industry. Market segmentation long has been considered one of the most fundamental concepts of modern marketing. Besides being one of the major ways of operationalizing the marketing concepts, segmentation provides guidelines for a firms marketing strategy and resources allocation among markets and products. The lots of noise about segmentation could be heard from practicing managers but practically this is rarely used effectively due to different need of customers.

Maclennan and Mackenzie (2000) found that only few companies use market segmentation to its maximum potential, while a majority of pharmaceutical companies still base their product development and commercialization plans on cursory, incomplete, or intuitive marketing analysis with the resultant marketing strategy, missing fundamental opportunities and delivering incomplete or inappropriate strategies. The strategic market segmentation can provide foundation for creating advantages that will lead to increasing sales and improving overall marketing performance. Srivastava Nandini (2004) proposed the need of focused approach towards segmentation strategies. Although the marketers have prior knowledge about target segment but there is need to segment the target more specifically in terms of benefits, occasions and usage patterns. Kaur Mandeep et al (2004) emphasisd on the need of market segmentation, so that a firm can offer the product according to the needs, tastes and preferences of customers. They used cluster analysis, an advanced multivariate technique to accomplish segmentation of passenger car market

Approaches for segmentation

Market segmentation helps companies to divide large, heterogeneous markets into smaller segments that can be reached more efficiently and effectively with products and services that match their unique needs. The homogeneity within a segment means that members of segment have similar needs and habits. Goodwin and Gentry (2000) proposed that Lifestyle is an important basis of market segmentation. The study argues that people undergoing life transitions share unique patterns of consumer behavior as well as common responses to marketing appeals. The segmentation model requires the selection of basis for segmentation. The major segmentation basis are briefly discussed below (kotler, 2003).

- Geographic Segmentation- Geographic segmentation as the name implies, entails subdividing the market into regions, cities, districts and villages. The assumption in using this basis for segmentation implies that prescribers in a particular geographic area have identical preferences and prescribing patterns.
- Demographic Segmentation- This is one of most commonly used segmentation technique used to classify prescribers. It divides the prescribers into groups based on variables such as length of practice, age, gender, specialization of physicians, sex and number of patients per day doctor treats. Income level of patient also plays an important role. If the paying capacity of patients is limited, he naturally prefers to go to a doctor whose fees are low and who prescribe cheaper drugs.

- Psychographic Segmentation-Psychographic segmentation is based on dividing the prescribers according to life style and personality characteristics. People in the same demographic group can have different psychographic make ups. Nine types of doctors can be distinguished on the basis of such criteria. These are experimentalists, progressive, hospital doctors/ teaching staff, over stretched, self satisfied type, philanthropic type, commercial type, the undecided and the disillusioned (Smarta, 1996).
- Behaviouristic Segmentation- Dividing the market on the basis of variables such as occasion, benefit sought, user status, usage rate, loyalty status, buyer readiness stage and attitude is termed as behaviouristic segmentation.
- Benefit Segmentation- By purchasing and using products, consumers are trying to satisfy specific needs and wants. In essence, they look for products that provide specific benefits to them. Identifying consumer groups looking for special benefits from the use of a product or service is known as befit segmentation.
- Multiple Segmentation-The marketers often combine together various characteristics because it reveals very important information about target market.

Vinith Kumar Nair et al (2007) investigated that male consumers generally prefer to purchase and select the brand of cosmetics individually. The study further observed that male consumers buy all their cosmetics items from one shop and that female cosmetic consumers prefer to purchase cosmetics from any convenient shop.

The selection of variables is based on the specific needs of marketing managers. The models used to identify the segments are- A priori segmentation and clustering based segmentation (wind, 1978).

*Priori Segmentation design in which management decides on a basis for segmentation such as product purchase, loyalty, customer type or other factor.

*Cluster based segmentation design in which segments are determined on the basis of a clustering of respondents on a set of relevant variables. Benefit, need and attitude segmentation are examples of this type of approach.

Objectives

The main objectives of the study are-

1. To assess and evaluate various segmentation basis taken into consideration by pharmaceutical companies while selecting the target market.

2. To define suitable segmentation strategy for marketers of prescription drug products.

Research Methodology

The sample of the study includes the field force of five fastest growing pharmaceutical companies i.e. Glaxo Pharmaceuticals Limited, Nicholas Piramal Pharmaceutical Limited, Sun Pharmaceuticals Limited, Aristo Pharmaceuticals (P) Limited , and Emcure Pharmaceuticals Limited (IMS – Feed back Report). The total numbers of respondents were 70. The study is diagnostic in nature. The research provides help to the marketers of prescription drugs by suggesting them suitable strategies so as to satisfy their target customers. The questionnaire was prepared and administered to respondents. The respondents were asked to assign weightage to each variable on three point scale i.e. High, Medium and low.

Analysis

The selection of target market is very important for any organization. An organization may choose to market its products to all users or to some sub groups. The target market for prescription drug companies is segmented to provide focused approach. The respondent’s priority and preferences to various variables used for segmenting the prescribers is analyzed using percentages, mean and S.D techniques, which is presented in table 1.1.

Table 1.1- Mean Score of variables used for Segmenting Prescribers

Segments	Summary		High		Medium		Low	
	Avg.	S.D	N	%	N	%	N	%
Demograhic	1.51	0.58	37	52.86	30	42.86	3	4.29
Geographic	1.83	0.61	20	28.57	42	60.00	8	11.43
Psychographic	1.94	0.73	21	30.00	32	45.71	17	24.29
Behavioural	2.24	0.85	19	27.14	15	21.43	36	51.43

It is evident from the table 1.1 that demographic segment (mean 1.51) is the most important segment considered by all the pharmaceutical companies under study for selecting target market. Next consideration is being given to Geographic (mean 1.83) followed by psychographic (mean 1.94) segments. Further, the analysis of variance shows that F value is significant at 0.01 level for various segments like demographic segment (F-7.495**), psychographic segment (F-7.888**) and Geographic segment (F-6.737**). This means that means are significantly different from one- another i.e. the responses of individuals are different from one another.

Segmentation Strategy

The dependence of pharma companies on single segment is not sufficient for segmenting the prescribers base. Due to existence of high competition the companies need to concentrate on almost each and every variable. They are required to segment the prescribers base by adopting psychographic and behavioural approach in addition to demographic and geographic approach. The huge competition among companies and changing market scenario demands the strategic approach. We suggest that the companies must go for integrated segmentation approach according to which the data first of all could be segmented on geographical basis following priori segmentation technique (Fig 1.1) followed by clustering analysis using demographic, psychographic and geographical variables.

Fig1.1- Priori Segmentation on Geographical basis

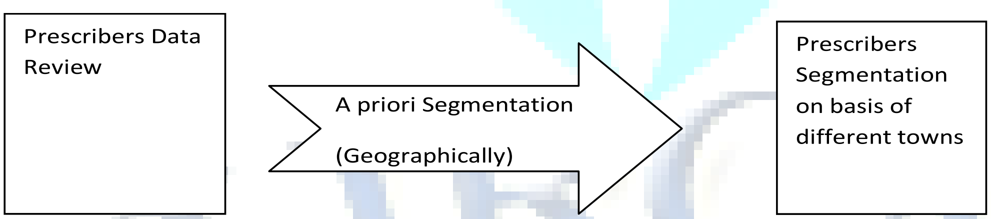
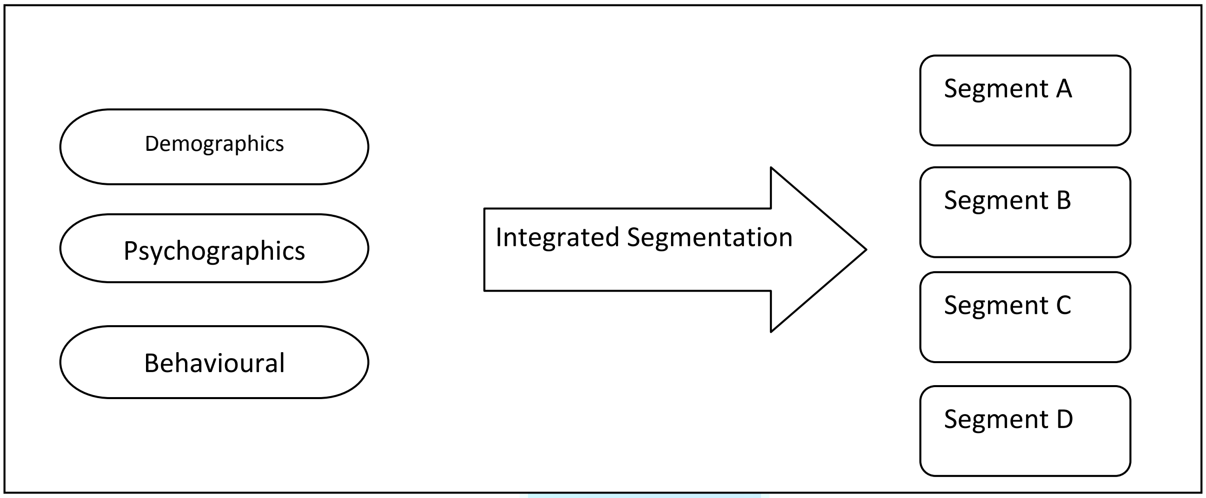


Fig1.2- Integrated Segmentation using various variables



In contrast to the theory of segmentation that implies that there is a single best way of segmenting market, we suggest that any attempt to use a single basis for segmentation for all marketing decisions may result in incorrect marketing decisions as well as waste of resources. The marketing managers often talk lot about segmentation, but very rarely this is used effectively. In pharmaceutical industry, marketing lies and moves around the print promotion and efforts made by the sales force, to move the product to ultimate consumers. Generally, while segmenting the prescribers base, strategy of market segmentation is not adopted. The managers and reps try to fit the market to the product and not product to the market. The same product is promoted to number of heterogeneous prescribers by adopting similar approach. We suggest the marketers to adopt Integrated segmentation as the best strategy to segment the prescribers having similar characteristics and thus adopting different marketing strategy for each segment. The Integrated segmentation approach analyzes individual prescribing behaviours, demographics, and psychographics (attitudes, beliefs, and values) of prescribers. For a particular product, for example, one segment might consist of price-sensitive physicians, another might include doctors loyal to a given manufacturer's brand, and a third may include those unfriendly toward reps. The Pharma executives can develop marketing and sales approaches for each segment.

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IMPACT OF GLOBALIZATION ON SERVICE SECTOR

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ABSTRACT

The wave of globalization appeared on India's shores only in 1991, much after China's and some other Southeast Asian countries such as Malaysia, Singapore and Hong Kong. Moreover, the intensity of *opening country's borders is much higher in other countries than in India where democratic political forces delay decision making significantly. Nevertheless, the Indian economy has broken the shackles of protectionism with great vigor, which has led to some positive developments.*

Service is the largest sector of Indian economy and its growth rate is higher than the other sectors. This sector is playing an increasingly greater role in productivity up gradation, employment generation, and revenue augmentation; export promotion and inflows of foreign investments. Its growth continues to be broad based. Service sector is supportive of and complementary to other sectors because of its linkages with other sectors, particularly industry.

The present study attempts to examine the trends of growth in service sector in India during the third phase of Post Economic Reforms in India and suggest measures to improve the performance of service sector in India. India's services sector has matured considerably during the last few years and has been globally recognized for its high growth and development. The efforts are needed to balance the trade and consider expansion of trade in other countries of the world. Major trading partners should be given importance and more of liberalizing attitude is to be followed.

Introduction

Globalisation is the buzzword that has come to dominate the world since the nineties of the last century with the end of the cold war and the break-up of the former Soviet Union and the global trend towards the rolling ball. The frontiers of the state with increased reliance on the market economy and renewed faith in the private capital and resources, a process of structural adjustment spurred by the studies and influences of the World Bank and other International organisations have started in many of the developing countries. Also Globalisation has brought in new opportunities to developing countries. Greater access to developed country markets and technology transfer hold out promise improved productivity and higher living standard. But globalisation has also thrown up new challenges like growing inequality across and within nations, instability in financial market and environmental deteriorations. Another negative aspect of globalisation is that a great majority of developing countries remain removed from the process. Till the nineties the process of globalisation of the Indian economy was constrained by the barriers to trade and investment liberalisation of trade, investment and financial flows initiated in the nineties has progressively lowered the barriers to competition and hastened the pace of globalisation.

One of the most encompassing and growing areas of activity is the service sector today. Traditionally we have been thinking only of finance, insurance, transport, communication and tourism in the service sector. But the present development has crossed these boundaries. Nascent and emerging areas such as environmental, educational and counselling also part of this emerging sector today. The sheer heterogeneity of activity within this sector is going beyond the hitherto static features of non-storability, non-tradability and intangibility.

Review of Literature

A review of literature in this area of study is made to understand the studies conducted in the past, major findings of the studies and the future need of studies.

Widening access to services like finance, communications, transport as well as education and health care is a critical element of any growth enhancement and poverty reduction programme. Inadequate access to services hurts citizens not only in their role as consumers but also perpetuates poverty by undermining the productivity of the firms and farms as well as their ability to engage in trade. Moreover the positive impact of access to efficient services can be amplified because of the synergies between service sectors:

access to insurance services can enhance farmers ability to access credit, availability of telecommunications services helps financial service providers reach forms and farms in outlying areas and the development of tourism depends critically on the availability and affordability of transport services.

Mattoo et. al. (2001) measured services trade liberalization and its impact on economic growth. The study reached three broad conclusions: First, services liberalization is different from trade in goods in that the former involves factor mobility and leads to scale effects that are distinctive though not unique. Second, it is possible to construct policy-based rather than outcome based measures of openness for the services that capture these differences. Third, there is some. econometric evidence-relatively strong for the financial sector and less strong but nevertheless statistically significant for the telecommunications sector- that openness in services influences long run growth performance. Their estimates suggest that countries with fully open telecom and financial services sectors grow up to 1.5 percentage points faster than other countries.

Rajan & Bird (2002) attempted to study that how Asian economies will benefit from liberalizing trade in services. The study briefly examines the theoretical case for liberalizing trade in services with the state of play with respect to the liberalization of trade in telecommunication and financial services in the five Asian economies. It also reviews the empirical evidence on the effects of liberalizing trade in services with an attempt to provide some indication of its implications for Asia, in particular with reference to supply of services via commercial presence. Their assembled evidence confirms the theoretical expectation of a beneficial impact of an appropriately timed and sequenced liberalization of the telecommunications and financial sectors on overall growth and welfare. On the empirical evidence on the effects of protection in services and the benefits of liberalization, the study suggests that the greatest gains come from "complete liberalization", the largest single benefit comes from reducing impediments to market access, particularly, in the context of "establishment" rather than "operations". A study by the World Bank has similarly shown that the more liberalised sectors in India have attracted more FDI and have shown far higher growth than less liberalised services. The study also shows that the segments that have been aggressively liberalised- telecommunications, computer and related services, other business services [management consultancy, research and development (R&D), advertising, etc.] and hotels and restaurants-have experienced higher employment growth than other sectors that are relatively less liberalised. Other service sub-sectors that have registered a fast growth rate include communications services, financial services, tourism, hotel and restaurants and distribution. The high-income elasticity of demand for services and increased input usage are likely to provide further impetus to future growth in the services sector.

Banga and Goldar (2004) have studied producer behaviour and productivity in Indian manufacturing. An analysis of the contribution of services to output growth and productivity in Indian manufacturing is made in the framework of the KLEMS (capital-labor-energy-materials-services) production function, explicitly recognising services as an input to the production process. It is concluded that the growing use of services had a significantly favourable effect on the growth of output in Indian manufacturing in the 1990s, when major trade and industrial reforms were being introduced.

Gordon and Gupta (2004) analyse the factors behind the growth of the service sector in India. Their study showed that the growth acceleration of services in the 1990s was mostly due to fast growth in communication services, financial services, business services, and community services. While factors such as a high income elasticity of demand for services, increased input usage of services by other sectors, and rising exports were important in boosting services growth in the 1990s, the supply side factors including reforms and technological advances also played a significant role. The large growth potential of Indian exports of services is well known, but the paper finds that there is also a considerable scope for future rapid growth in the Indian service sector provided that deregulation of the service sector continues. The paper shows that employment growth in the Indian service sector has been quite modest, thus underscoring the importance of the rapid growth of industry and agriculture.

Banga (2005) identifies the critical issues with respect to growth of India's service sector and provides policy insights thereof. An assessment of performance of services at the aggregated as well as the disaggregated level is undertaken in terms of their shares in GDP, employment, trade, and FDI. Accordingly different services have been categorised in order to identify crucial constraints on their growth. The paper identifies the following critical issues: the pattern of growth in India's service-sector, i.e., how different services have behaved in terms of growth rate and share in GDP, employment, trade, and FDI; factors that explain growth in India's service sector; factors responsible for the lack of employment growth in the service sector; whether India's service sector can sustain its growth; and the important external and internal barriers to trade in different services in India.

The review of literature survey revealed that in the past no research work is undertaken on the role and impact of globalization on service sector, this study is undertaken to fill the gap in research

OBJECTIVE OF STUDY

The present study attempts to examine the trends of growth in services sector in India during the third phase of Post Economic Reforms in India and suggest measures to improve the performance of service sector in India. It is an analytical study of component wise growth of commercial services trade – Exports and Imports in India during 2005 – 2009.

METHODOLOGY

The present study is based on secondary data. Data have been collected from various sources-Economic Survey reports, Government of India reports, Financial Express, Report of currency & Banking, RBI, Annual Reports of Reserve Bank of India (RBI), Statistics of the Foreign Trade in India, Foreign Trade Review, CMIE Reports and other relevant books and publications. It covers a period of study from 2005 - 2009, which is considered as the Third Phase of Post Economic Reforms in India.

To analyze the data the average percentage growth in exports and imports has been calculated. To study the composition of India's exports and imports, selected commodity composition of exports and imports have been analyzed and average percentages share has also been calculated for comparison purposes.

GLOBALIZATION

Globalisation has the reduction of transaction cost of transformer movements of capital and goods thus of factors of production and goods. The process of globalisation not only includes opening up of world trade, development of advanced means of communication, internationalisation of financial markets, growing importance of MNC's, population migrations and more generally increased mobility of persons, goods, capital, data and ideas but also infections, diseases and pollution.

Globalization and the growth of the knowledge-based economy are perhaps the two key forces at work in the economy today. The service sector encompasses a wide and varied range of economic activity, including banking, janitorial services, education, entertainment, transportation, health, and much more. Any analysis of the effects of globalization and new information technologies on the economy must, therefore, unavoidably include the service sector. The need to focus on the service sector goes beyond the simple fact of size, however. The global trade policy agenda has been shifting toward services, and we need to ensure that we have a good understanding of the economics of the sector before embarking on trade agreements in this area.

Globalization is inextricably linked with services. Services both facilitate globalization and are subject to the pressures and benefits of globalization. The key linkages between countries occur via telecommunications and transport, both of which are services. Changes in technology, competition policy and trade policy in these industries have helped to lubricate the channels of global economic integration. Services are also becoming increasingly open to international trade. Although most world trade is still in goods, global international trade in services recently has been growing faster than trade in goods, and more than half of new direct foreign investment is in services. This creates new opportunities for consumers and producers of services; but it also creates new challenges.

In recent years, this had begun to change. International trade agreements are now being extended to cover trade and investment in services. Some regional trade and investment in services were covered by the North American Free Trade Agreement (NAFTA). As well, under the auspices of the World Trade Organization (WTO), member countries have committed to the General Agreement on Trade in Services (GATS), which is a framework for the development of a liberalized rules-based regime for international trade and investment in services. While previous rounds of trade liberalization that focused on goods were backed up by a wide array of studies of their potential effects, there is still very little known about the size or costs of current barriers to trade in services and the consequences of different approaches to trade liberalization.

New developments in information technology are also having a large impact on the service sector. The top five industries in terms of computer purchases are all services (Triplett and Bosworth, 2001). Telecommunication costs have plummeted and the quality and variety of services have increased dramatically over the last 15 years. These and other changes have altered the nature of work for many in the service sector, as the pace of change has required firms and their workers to adapt and innovate to remain competitive. The pace and importance of innovation in a world that is becoming more integrated creates significant challenges for policy. Regulation and policy need to evolve to reflect changes in technology and global markets, and this requires that we develop a better understanding of the underlying economics.

IPACT OF GLOBALISATION ON INDIA

India opened up the economy in the early nineties following a major crisis that led by a foreign exchange crunch that dragged the economy close to defaulting on loans. The response was a slew of Domestic and external sector policy measures partly prompted by the immediate needs and partly by the demand of the multilateral organisations. The new policy regime radically pushed forward in favour of amore open and market oriented economy.

Major measures initiated as a part of the liberalisation and globalisation strategy in the early nineties included scrapping of the industrial licensing regime, reduction in the number of areas reserved for the public sector, amendment of the monopolies and the restrictive trade practices act, start of the privatisation programme, reduction in tariff rates and change over to market determined exchange rates.

Over the years there has been a steady liberalisation of the current account transactions, more and more sectors opened up for foreign direct investments and portfolio investments facilitating entry of foreign investors in telecom, roads, ports, airports, insurance and other major sectors.

The Indian tariff rates reduced sharply over the decade from a weighted average of 72.5% in 1991-92 to 24.6 in 1996-97.Though tariff rates went up slowly in the late nineties it touched 35.1% in 2001-02. India is committed to reduce tariff rates. Peak tariff rates are to be reduced to the minimum with a peak rate of 20%, in another 2 years most non-tariff barriers have been dismantled by March 2002, including almost all quantitative restrictions.

The liberalisation of the domestic economy and the increasing integration of India with the global economy have helped step up GDP growth rates, which picked up from 5.6% in 1990-91 to a peak level of 77.8% in 1996-97. Growth rates have slowed down since the country has still bee able to achieve 5-6% growth rate in three of the last six years. Though growth rates had slumped to the lowest level 4.3% in 2002-03 mainly because of the worst droughts in two decades the growth rates are expected to go up close to 70% in 2003-04. A Global comparison shows that India is now the fastest growing just after China.

It is a major improvement given that India is growth rate in the 1970's was very low at 3% and GDP growth in countries like Brazil, Indonesia, Korea, and Mexico was more than twice that of India. Though India's average annual growth rate almost doubled in the eighties to 5.9% it was still lower than the growth rate in China, Korea and Indonesia. The pick up in GDP growth has helped improve India's global position. Consequently India's position in the global economy has improved from the 8th position in 1991 to 4th place in 2001.

India is well endowed with a large pool of low cost, technically skilled laborers. India presently accounts for 28 per cent of IT and BPO talent among 28 low-cost countries in the world. India’s balance of payments had been marked by strong growth in invisible receipts comprising services income from financial assets while labour, property and workers' remittance is fast catching up with merchandise trade. After a period of relative stagnation during the 80s, the share of invisibles in current receipts rose to 47 per cent in 2005-06 from 29 per cent in 1990-91. The invisibles surplus continued to rise to reach a level of USD 40.9 billion in 2005-06. In tandem with the growth momentum in the services sector and its rising contribution to GDP, the comparative advantage of India in services exports is reflected in India's services exports growing at above 20 per cent on an average, since the mid nineties.

It is a significant rise in the invisible receipts is attributable to an improved competitive advantage in the business and technological services. Within the services exports, rising prominence of business services reflects the high skill intensity of the Indian workforce. An important feature of services export is that India has emerged as a major software exporting country with exports amounting to USD 23.6 billion in 2005-06, growing at a steady rate of over 30 per cent in the recent past. While merchandise export growth was 21% in 2006-07 services exports grew by 32.5%.

A striking feature of the services sector boom in India is its relatively 'jobless' nature. Although the services sector has recorded dynamic growth in the nineties, thereby registering a significant increase in its share in India's GDP (55% in 2005-06), the share of services in India's employment has not depicted a commensurate growth (26.4% in 2004-05). Thus, while output generation had shifted to services, employment creation in services has lagged far behind. This slower growth of jobs in the Indian services sector is in sharp contrast to the experience of many developed countries, where the services sector's share in employment rose faster than did its share in national output.

In the context of growing role of services sector in trade and development of the economy, this study attempts to benchmark the development impact of liberalization of trade in important services sectors in India. But any attempt in quantifying the development impact of growth in services remains futile because of lack of data with respect to output and employment in disaggregated services. Given the inter linkages of services the impact assessment becomes an even more Herculean task. The study therefore begins by making an attempt to generate output and employment multipliers of services sectors in India.

It is known that services trade is more complex than goods trade because of a number of barriers. They often take the form of regulatory measures, varying between and within sectors, some preventing market entry, others restricting the scope of operations within the market. For instance, in many countries provision of professional services is restricted to nationals. Market-access barriers in services can also limit the entry of new domestic suppliers into the market, restricting both domestic and foreign competition, especially in sectors where there are public or private monopolies, for example, telecommunications, insurance, environmental services, transport, banking and retail. Further domestic regulatory barriers are very important in sectors such as accountancy. Available evidence suggests that developing countries have more restrictive barriers than developed countries in key infrastructure services such as telecommunications and financial services. Developed countries may have higher barriers in other sectors such as education, maritime, professional and distribution services. Every services sector thus has specific issues associated with it. In addition to estimating the estimating the impact of overall services growth, this report thereafter focuses on five selected sectors; information technology in which India has a recognized comparative advantage; health-related and social services which is emerging as an export sector and one which has widespread positive externalities, tourism and travel-related services, education services and financial services. In addition to their export potential, the chosen sectors are also investigated for their impact on growth, access and poverty reduction.

The Employment Survey estimated that growth poverty elasticity of the services sector to be considerably higher than either agriculture or manufacturing. A study by the International Monetary Fund (IMF) attempted to capture the impact of growth of service exports on poverty. Services growth in India averaged at 7.5 per cent per annum, thus providing valuable support to industry and agriculture, which grew at 5.8 per cent and 3.1 per cent respectively during the decade of the 1990s. In order to arrive at a rough estimate of the contribution of this sector's exports to growth, the value the IMF has estimated added component of these exports at 60 per cent. Based on this estimation, services exports contributed 0.6 percentage points to the total growth of this sector. This would imply that poverty would be reduced by approximately 0.06 per cent with the current rates of growth of exports of the services sector. Given that it is estimated that there are about 300 million people below the poverty line, this would imply that 1.6 million would be moved out of poverty per year by services liberalisation, in turn leading to growth in other sectors. The direct effects through employment would be larger. Most of the poverty-reduction effects of export growth of the services sector can, however, is attributed to the indirect multiplier effects rather than to direct employment growth.

A close look at India's service trade sector indicates that in real terms growth in India's exports and imports on both goods and services had declined. Maximum decline is witnessed in growth of export of services which grew at the rate of 26.8% in 2005-06, but experienced a negative growth of -1.8% in 2007-08. Growth of import of services declined from 24.0 in 2006-07 to -3.7 in 2007-08 that is negative growth.

Table No 1 Growth in India's Trade (In Real Terms) : 2005-2008 (%):

	2005-06	2006-07	2007-08
Export of Services	26.8	27.4	-1.8
Import of Services	17.8	24.0	-3.7
Private Remittances	12.9	10.0	24.1
Real GDP at Market Prices	9.2	9.7	9.2

Source: National Accounts Statistics, CSO and RBI

Given the high dependence of Indian economy on its external trade sector, where exports of goods and services is around 20% of GDP, a slowdown in trade sector can have adverse ripple effects in the economy. More importantly it can lead to job losses and increase the number of poor in the country.

In the last three decades, it is evident; the service sector has expanded rapidly all over the world, though by comparison in India the growth has not been so pronounced. In fact, India has lagged behind even compared to some countries in south Asia. Interestingly some of the developing countries like those of Latin America have services accounting for a higher percentage of GDP than the world average and even Japan. Generally speaking the developed countries have dominated this expansion of services accounting of three quarters of world services output.

Table No 2 Shares of Services in GDP

Countries	Share of Services in GDP (Percent)		
	1980	1999	2007
India	**36**	**46**	**52**
Pakistan	46	49	53
Bangladesh	34	50	52
Sri Lanka	43	52	58
Nepal	26	37	49
Singapore	61	64	69
Korea	45	51	58
China	21	33	40
Argentina	52	67	57
South Africa	43	64	66
USA	64	74	77
Japan	54	62	68
France	62	74	77
World	**55**	**63**	**69**

Source: World Development Indicators, 2008

IMPACT OF SLOW DOWN OF THE ECONOMY ON SERVICE SECTOR

Due to globalization, the Indian economy cannot be insulated from the present financial crisis in the developed economies. The development in the U.S financial sector has affected America but also European Union, U.K and Asia. The Indian economy too has felt the impact of the crisis though not to the same extent. It is premature to try to quantify the consequences of the crisis on the Indian economy. However the impact will be multi-fold

Due to increased integration of the world markets, transmission of economic crisis from one country to the rest of the world had become smoother. The larger the country, where the crisis originates, the greater is the impact on other countries. US, one of the largest economy in the world, both in term of its share in world GDP (27%) and global imports (17%) experienced the sub-prime mortgage collapse in August 2007. This was followed by the reversal of the housing boom in other industrialized economies, which had a ripple effect all around the world. Integrated financial sectors unmasked other weaknesses in the global financial system as a result of which some of the financial products and instruments became so complex and twisted, that as things started to unravel, trust in the whole system to fail. Stock markets crashed all over the world, with declines ranging from 35-40% over the past 12 to 18 months in developed countries and even more in most emerging markets.

SERVICES TRADE

While the contribution of agriculture to the GDP has been steadily declining, the share of manufacture sector has been stagnant and the services sector has been making rapid strides. Presently the share of the services sector to the GDP is about 52%. The trends in sectoral composition of GDP have several implications to the development process of the economy, which need to be addressed and carefully analyzed.

Interestingly, the contribution of agriculture to GDP in counties such as China, Korea, Indonesia, Malaysia, Philippines and Thailand is much lower that that of India. Further, it is the manufacturing sector that is dominant in all these economies by contributing about 65% to GDP in China about 45% in Korea, 44% Indonesia and Thailand and about 69% in Singapore. In contrast in India the contribution of the manufacturing sector is one of the lowest at about 28% and the services sector is one of the highest.

The services sector witnessed a phenomenal growth during the post – liberalization era. A glance at the growth rated of sub-sectors of the services sector during 2003-04 reveals that sub-sectors such as trade, hotels and communications have been witnessing rapid growth at about 11 per cent per annum, while other sectors such as construction, community, social and personal services showing about six per cent growth. This clearly indicated lack of symmetry in the development across the sub-sectors of the services sector raising issues such as public investment in these sectors, private participation, foreign investment, deregulation, foreign direct investment, tax and other incentives, etc.

While in the developed economies, for instance the USA, the contributions of services sector to the GDP is 80% accounting for 70% of the total employment, in India Contrastingly the contribution of services sector to employment is not even one-fifth of the total employment. The reasons for the discouraging performance of the services sector in terms of employment generation need an in depth analysis.

India has become a hub of business process outsourcing for the developed countries due to the availability of cost effective and skilled human resources. This is fact thrown up a big opportunity as well as a challenge. We have to find ways to harness and tone up the vast growing reservoir of human capital to make it fit for meeting the demands placed on it. This may warrant a thorough overhaul of the curriculum and the pedagogy particularly in the Commerce discipline.

Services sector has also thrown open several opportunities on the export front. For example, the exports of software products and services, technical know - how, technology, transfer and the human capital. In this context, a closer examination of the policy domain of the Government, unexplored areas and markets, cost effective ways of reaching out to the people across the Globe etc.

The extent of penetration of the services into rural areas, where about 70 per cent of the population of the country still lives, is abysmally low. One of the important issues related to the services sector is outsourcing of services by the urban economy from the rural areas. Many services can be produced at a much cheaper price in rural areas on account of availability of cost effective human resources.

Services contribute to economic growth and development through the creation of a competitive economy, by providing new jobs, by enhancing access to essential services, and by stimulating trade. Service sectors such as business and finance, telecommunications, construction, environment, distribution, healthcare, education, and cultural services provide the backbone of an integrated and effective economy, nationally, regionally and globally. An improved services economy contributes to improved performance in merchandise trade since the increased sophistication and availability of producer services enhances international competitiveness in the export of primary and manufactured goods. The informal services sector is also an important aspect of the services economy in developing countries.

Services, particularly finance (insurance) and transportation of goods, are traditional complements to goods trade. With the spread of telecommunications and computer technologies, virtually all-commercial services have become tradable across borders. The trend of globalization, reinforced by liberalization policies and the removal of regulatory obstacles, has fuelled steady growth of international investment and trade in services.

INDIA'S - EXPORT OF COMMERCIAL SERVICES

In less than two decades, India has become one of the top five exporters of services amongst developing countries, and has surpassed some the other Asian countries that had dominated the services trade in the 1990s. India has been deemed as a major exporter of services in the world with a market share of 2.72 % in 2008 as against 0.6 % in 1995. India's services sector has matured considerably during the last few years and has been globally recognized for its high growth and development. U.S. is one of the major markets for export of services for India. Its share in total services exports has been around 10% with the growth of services exports to U.S. being higher than that to the world since 2005-06.

Exports of services from India have been oriented mostly towards the EU25 and US in the developed world. India's country-wise exports of services show that the US and the UK are two most important destinations for service exports. EU and South East Asia are relatively less important destinations. According to the Economics Survey 2007-08, India exports travel services mainly to EU and transportation service to South East Asia.

Around 13% of the total Indian services exports were oriented towards the EU25 in 2003. However, the share has come down to 10% in 2005. US accounted for about 8.7% of total India's services export in 2005. Interestingly, the share of US has gone up to around 10.7% in 2007.

TABLE NO 3: INDIA'S EXPORTS COMMERCIAL SERVICES TRADE PERFORMANCE (2005-09)

	2005	2006	2007	2008
Commercial Services *exports,*(million US$)	56,094	73,839	89,746	102 648
Annual percentage change			35	23
Share in world total exports	2.32	2.68	2.73	2.72
Breakdown In Economy's Total exports By Principal Service item				
Transportation (%)	10.4	10.5	9.8	10.8
Travel (%)	11.4	10.5	12.4	11.5
Other Commercial Services (%)	78.1	79.0	77.8	77.7

Source: Compiled from the WTO Trade Profile reports (2005-09)

India is a major services exporting country with around 3% of the world total service exports. India's exports of services are mainly to the EU and the US. The latter alone accounting for around 11% of India's total services exports.

Services exports have not been as affected as exports of merchandise. The sub-sectors within services exports that have registered some contraction are travel, insurance, business and communication services. Software services exports, which are for some reason classified under miscellaneous receipts for India have been a major contributor to the growth of services exports, accounting for as much as 45% of total exports, goods and services combined (2007-08). However the intensity of the adverse impact of the global economic downturn on India's exports is perhaps best demonstrated by noting that even India's software exports recorded a contraction in the fourth quarter of 2008-09 by more than 15%. While the actual decline was confined to only a single quarter, the growth of software exports in 2008-09 has been far from the levels achieved in the years preceding the global crisis.

TABLE NO 4: INDIA'S SHARE AND PERCENTAGE GROWTH/CHANGE OF MAJOR EXPORT SERVICES

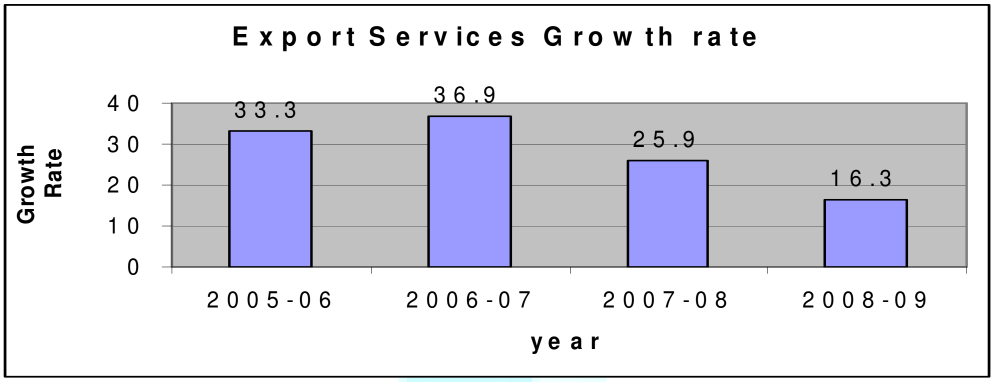
	(Percentage of Share)				Growth rate*			
Commodity Groups	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2005-06**	**2006-07**	**2007-08**	**2008-09**
Travel	13.6	10.6	12.1	11.0	17.8	15.7	26.2	6.2
Transportation	11.0	11.3	10.7	10.7	35.1	27.1	18.4	16.3
Insurance	1.8	1.7	1.8	1.4	21.1	-4.5	37.0	-8.2
GNIE	0.5	0.3	0.4	04	-21.7	-18.5	34.0	22.2
Miscellaneous of which	73.0	76.1	75.1	76.5	37.5	44.0	26.7	18.4
Software services	40.9	42.9	42.9	46.4	33.3	37.2	26.3	25.9
Non-software services of which	32.1	33.2	32.2	30.0	43.1	54.0	27.2	8.5
Business services	16.1	24.1	19.1	17.1	80.1	138.1	16.4	3.9
Financial services	2.1	2.8	3.6	4.5	136.1	56.1	13.3	45.7
Communication services	2.7	3.2	2.7	2.4	13.8	90.3	5.2	4.1
Total	**100**	**100**	**100**	**100**	**33.3**	**36.9**	**25.9**	**16.3**

Source: Calculations based on RBI data (2005-09)

GNIE: Government Not Included Elsewhere

- Growth rate in US dollar terms

Figure No 1, Exports Services Growth Rate



Source: ***Compiled from the WTO Trade Profile reports (2005-09)***

Travel

Travel, which is represented by the Foreign Tourist Arrivals and Foreign Exchange Earnings, registered a higher year-on-year growth rate of 26.2% in 2007-08 as compared to the previous year growth rate of 15.7%. Foreign Tourist Arrivals during the year 2008 were 5.37 million as compared to Foreign Tourist Arrivals of 5.08 million during the year 2007. Foreign Exchange Earnings (FEE) in US$ terms during the year 2008 were US$ 11,747 million as compared to US$ 10,729 million in 2007. During April-September 2008, However, the impact of global financial meltdown is evident in the latest numbers released by the ministry of tourism, India which reports foreign tourist arrivals at 1.461 million in 4Q 2008-09 were 13.75% lower as compared to 1.694 million in 4Q 2007-08. Also, foreign exchange earnings during the same period were lower at US$ 2,731 million as compared to US$ 3,935 million during January to March 2008.

Export of Transportation services

Export of Transportation services had slowed down in past few years registering 26.5% year-on-year growth in 2007-08 as compared to a growth rate of 24.2%in 2005-06.

Non-Software services

Non-Software services, under miscellaneous receipts, recorded a fall in year-on year growth rate from 49.3% in 2006-07 to (-7.9%) in 2007-08. Communication, business and financial services were the major contributors to the decline in non-software services. Though Communication and Financial services recorded positive growth rates in 2007-08, the growth rates were substantially lower than previous year growth rates and similarly the decline was also attributable to a major negative growth rate recorded in export of business services. This slowdown is the result of the banking financial services and insurance sector being at the core of global economic slowdown. However, services such as Construction, News Agency, Royalties, Copyrights and License Fees and Personal, Cultural Recreational services registered higher year-on-year growth rates in the non-software category. Amongst the export of business services-Business & Management Consultancy as well as Architectural, Engineering and Other Technical Services registered the largest decline.

In addition, Banking, Financial and Insurance (BFSI) sector which has been the epicenter of this global financial crisis accounts for approximately 50% of the revenues of IT & ITeS providers which makes IT & ITeS highly vulnerable to the current global slowdown in terms of delayed decision making and reduction in IT spending by customers of frontline IT companies.

Services exports reached US$ 90.1 billion in 2007-08 with a sustained high growth of export of services, which however moderated to 22.1 per cent in 2007-08. Growth has been rapid in the miscellaneous services category particularly software services and business services. The annual average growth of miscellaneous services was 33.8 per cent during 2000-01 to 2005-06 and 31.2 per cent and 20.8 per cent respectively in 2006-07 and 2007-08.

TABLE NO 5 MISCELLANEOUS RECEIPTS: NON-SOFTWARE

	2005-06	2006-07	2007-08
Communication Services	**1,575**	**2,099**	**2,436**
YoY Growth		32.274%	16.06%
Construction	**242**	**332**	**780**
YoY Growth		37.19%	134.94%
Financial	**1,209**	**2,913**	**3,085**
YoY Growth		140.94%	5.90%
News Agency	**185**	**334**	**643**
YoY Growth		80.54%	92.51%
Royalties ,copy rights and license fees	**191**	**97**	**157**
YoY Growth		-49.21%	61.86%
Business Services	**9,307**	**19,266**	**16,624**
YoY Growth		107.01%	-13.71%
Personal, Cultural, Recreational	**189**	**173**	**559**
YoY Growth		-8.47%	223.12%
Others	**5,607**	**26,256**	**24,619**
Total	**18,505**	**26,256**	**24,619**
YoY Growth		41.89%	-6.23%

Source: www.rbi.org.in

The impact of global recession was relatively less on India's services exports till December 2008 although the services export growth rate during April-December (2008-09), moderated to 16.3 per cent. A negative growth rate of (-) 8.2 per cent in insurance and sharp fall in growth rate to 6.2 per cent in travel services was registered during this period. Even transport services and miscellaneous services registered lower growth. Software services grew at 26 per cent, while financial services registered a robust growth of 45.7 per cent despite the global financial crisis and fall in growth rate in world financial services exports. But business services growth was at a lower rate of 3.9 per cent.

The impact of global slowdown on India's exports of services has not been as deep as the impact on goods and services exports are still recording positive export growth, the increasing legislations and inbuilt conditions in the stimulus packages offered for revival in the developed countries may lead to escalating the impact of slowdown on services exports overtime.

INDIA'S - IMPORT OF COMMERCIAL SERVICES

In terms of imports of services software, miscellaneous, business and financial services were adversely affected suffering a decline of growth rate 11% in 2008-09 compare to 2007-08 that is 33%.

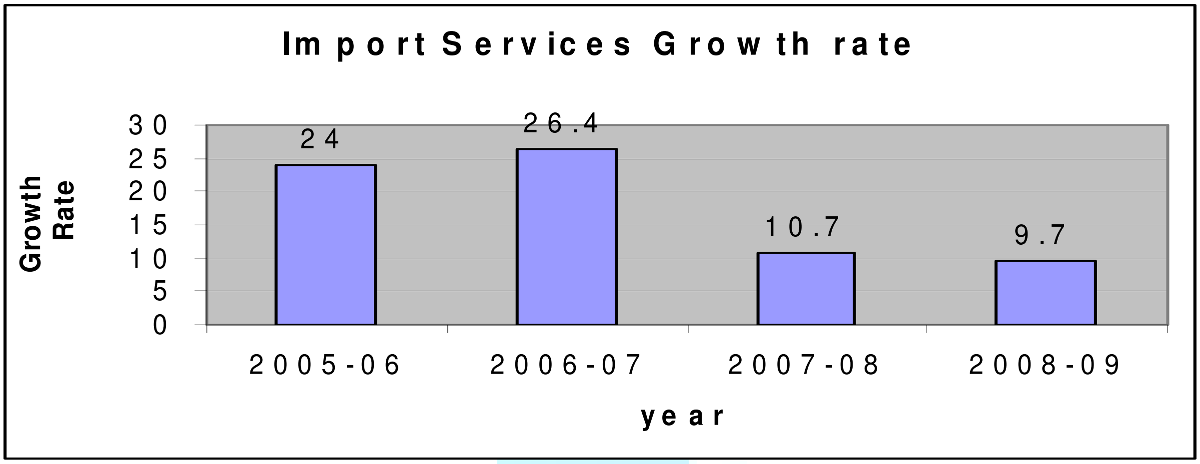
While India's services exports have not been as adversely impacted as merchandise trade, an increasing number of legislative measures and restrictive conditions included in the stimulus packages of the US, the UK, etc. may aggravate the negative impact in the coming period. In the context the agreement at the successive G20 summits to prevent any move towards competitive protectionism is of major importance.

TABLE NO 6: INDIA'S IMPORTS COMMERCIAL SERVICES TRADE PERFORMANCE (2005-09)

	2005	2006	2007	2008
Commercial Services imports (million US$)	52,211	63,696	77,200	83,599
Annual percentage change	-	-	33	22
Share in world total *imports*	2.22	2.41	2.50	2.40
Breakdown In Economy's Total imports By Principal Service item				
Transportation (%)	38.0	39.4	40.3	49.5
Travel (%)	11.1	11.4	11.4	11.5
Other Commercial Services (%)	50.9	49.2	48.3	39.0

Source: Compiled from the WTO Trade Profile reports (2005-09)

FIGURE NO 2, IMPORT SERVICES GROWTH RATE



Source: Compiled from the WTO Trade Profile reports (2005-09)

The Indian policy response to the plummeting of its exports has been principally to provide fiscal incentives in the form of reduced import duties on imports needed for exports and raising the rates of duty drawback available to exporters. In addition, exporters have been given a 2% interest rate subsidy on the refinancing of trade finance as well as for their working capital requirements. This may have helped in the slight recovery that is now being seen in the month on month de-seasonalised data. However, the refinance facility has been recently withdrawn and could affect the export effort.

TABLE NO 7: INDIA'S SHARE AND PERCENTAGE GROWTH/CHANGE OF MAJOR IMPORTS SERVICES

Commodity Groups	(Percentage of Share)				Growth rate*			
	2005-06	2006-07	2007-08	2008-09	2005-06	2006-07	2007-08	2008-09
Travel	19.2	17.8	19.0	18.3	26.5	12.6	31.1	5.9
Transportation	24.2	21.5	23.8	27.5	83.7	0.0	33.8	26.5
Insurance	3.2	1.5	2.1	2.1	54.6	-25.3	50.8	10.0
GNIE	1.5	1.1	0.9	1.2	28.7	-13.0	5.0	39.9
Miscellaneous of which	51.8	58.1	54.1	50.9	5.7	50.7	-3.0	3.1
Software services	3.9	4.4	6.8	6.3	67.3	71.2	55.1	1.2
Non-software services of which	47.9	53.7	47.3	44.5	2.7	49.3	-7.9	3.3
Business services	22.5	31.9	32.1	26.5	5.9	115.8	7.2	-9.3
Financial services	2.8	3.4	5.6	6.2	16.0	25.1	14.7	21.6
Communication services	0.8	1.5	1.7	2.0	-60.8	142.3	12.7	24.4
Total	**100**	**100**	**100**	**100**	**24.0**	**26.4**	**10.7**	**9.7**

Source: Calculations based on RBI data (2005-09)

GNIE = Government not included elsewhere

- Growth rate in US dollar terms

Imports of commercial services have become important in recent years reaching US$ 52.5 billion in 2007-08 though its growth moderated to 18.5 per cent in 2007-08. Business service is the most important category of service in imports, followed by transportation and travel. However, with a high base rate of growth, business services grew by only 7.2 per cent in 2007-08. Transportation, travel and insurance registered robust growth partly due to lower base effect. In 2008-09 (April December), there was a sharp fall in the growth rate of business services imports (as in the case of business services exports) mainly due to the fall in imports of business and management services and relatively low growth in imports of architectural, engineering and other technical services. Import growth of travel services fell sharply to 5.9 per cent, while transportation import growth registered good growth though it moderated to 26.5 per cent. Interestingly, good growth of imports was registered in financial services and communication services despite the global financial crisis.

FINDINGS OF STUDY

World trade the liberalization and globalization of trade have enabled developing countries to participate in world trade at an increasing rate. Although the share of India in total world has also increase over time its share is minuscule.

1. The study revealed that India has been deemed as a major exporter of services in the world with a market share of 2.72 % in 2008 as against 0.6 % in 1995. India's services sector has matured considerably during the last few years and has been globally recognized for its high growth and development.
2. The study revealed that India's exports of services are mainly to the EU and the US. The remaining countries exports accounting for around 11% of India's total services exports.

3. In terms of imports of services software, miscellaneous, business and financial services were adversely affected suffering a decline of growth rate 11% in 2008-09 compare to 2007-08 that is 33%.
4. Imports of commercial services have become important in recent years reaching US$ 52.5 billion in 2007-08 though its growth moderated to 18.5 per cent in 2007-08.

The trends in India's exports and imports indicate that the impact of slowdown on India was felt with a lag probably due to overtime diversification in India's exports both in terms of composition and direction. However, there is a large scope for further diversification both in terms of composition and direction of exports. Around 30% of exports are still directed towards developed countries, which need to be diversified to developing countries. Share of fewer commodities in top 50% of India's exports at six-digit level in 2007 as compared to earlier period reflects the need and scope for further diversification.

SUGGESTION AND CONCLUSIONS

Indian economy has made rapid strides in the process of globalization; Globalization is increasing the integration of national markets and the interdependence of countries worldwide for a wide range of goods, services, and commodities. Several factors have engendered such a transition including the liberalization of tariffs and other barriers to trade; foreign direct investment through trade and investment agreements; autonomous unilateral structural reforms; technological innovations in transport and communications; international development cooperation; and the strategic use of policies, experimentation and innovation.

The most important lesion that we must learn from the crisis is that we must be self-reliant. Though World Trade Organization (WTO) propagates free trade, we must adopt protectionist measures in certain sectors of the economy so that recession in any part of the globe does not affect out country.

Great savings habit among people, strong fundamentals, and strong conservative and regulatory regime had saved Indian economy from going out of gear, though significant parts of the economy have slowed down and there is a wide variance of opinion about how long it will continue. It is expected that growth will be moderate in India. The most important lesson that we must learn from the crisis is that we must be self-reliant. Though World Trade Organization (WTO) propagates free trade, we must adopt protectionist measures in certain sectors of the economy so that recession in any part of the globe does not affect our country.

The study concludes that India's trade reform programme resulted in strong economic growth in the globalization age. The recent slowdown, although partly due to the overall slowdown in the world economy, has demonstrated the necessity of continuing these reform efforts. In particular, difficult decisions are required to redress the fiscal imbalance, by reducing subsidies, completing the process of tariff and tax reform, and stepping-up privatization of state-owned enterprises.

The efforts are needed to balance the trade and consider expansion of trade in other countries of the world. Major trading partners should be given importance and more of liberalizing attitude is to be followed.

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CORPORATE SOCIAL RESPONSIBILITY (CSR) INITIATIVES IN ASIA: A BURGEONING QUINTESSENCE

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ABSTRACT

The theme of social responsibility is rapidly becoming a budding quintessence on the domestic as well global agenda of the corporate sector. The idea of corporate social responsibility (CSR) is not new. Business, through the ages, demonstrated varying degrees of responsibility to society. The present study explores global phenomenon in CSR, and examines the corporate social responsibility initiatives and trends of Indian companies on selected CSR indicators in comparison to Asia and world. The study based on secondary data observed that CSR has gone main stream for the many of the world's companies and is headed in the same direction in India also. India has emerged as a prominent country paying an ever-increasing attention towards corporate social responsibility (CSR) disclosure. Indian companies TCS and ITC have emerged in top 10 ASR 2009 list. Indian companies have shown its presence in the top two positions in most of the CSR indicators i.e. Corporate Governance, Codes, and Policies; Corporate Social Responsibility Strategy and Communication; Corporate Environment Disclosure; Community Investment Initiatives; and total industry score. To conclude, it is evident that the concept of CSR has

emerged as a promising benchmark for companies not only in Asia but across the world as a whole. However, the biggest challenge faced by companies is to develop a CSR strategy to find tangible and business focused metrics linked to ethical, social and environmental performance in order to meet stakeholder demands and expectations.

KEY WORDS

Budding Quintessence, CSR Indicators, Corporate Governance, Community Investment Initiatives, benchmark.

INTRODUCTION

Corporate Social Responsibility has turned out to be one of the most promising "management fashions" and business key words of the last decade. The subject of corporate social responsibility (CSR) is rapidly becoming a budding quintessence on the domestic as well global agenda of the corporate sector. The last decade has witnessed a substantial growth of awareness in corporate responsibility both among major companies and across society. Demand for greater transparency, accountability and public reporting are gradually increasing. There has been an escalating demand from stakeholder groups for greater corporate transparency regarding financial as well as non-financial indicator. External pressures from stakeholders are not exclusively accountable for the emergence of metrics concerned with CSR performance. Significant internal pressures are also a key driving force. This pressure has played a central role for the increasing popularity of CSR in the business community, as a means of demonstrating and communicating non-financial performance to a variety of stakeholders. The idea of corporate social responsibility is not new. Business, through the ages, demonstrated varying degrees of responsibility to society. However, this concept today covers a wide spectrum of topics, issues and methodologies. There are two dimensions to a company's CSR performance i.e. actual/measurable performance and perceived performance by key stakeholder groups. Effective CSR reporting provides the vehicle by which a company is able to consider, manage and balance actual and perceived performance. In response to this trend, Companies are also showing great willingness to incorporate ethical, social and environmental issues into their corporate reports either separately or as an indispensable part of their annual reports. The biggest challenge faced by companies is to develop a CSR strategy to find tangible and business focused metrics linked to ethical, social and environmental performance in order to meet stakeholder demands and expectations.

CSR-CONCEPT AND DEFINITIONS

The slogan Corporate Social Responsibility was coined in 1953 with the publication of Bowen's 'Social Responsibility of Businessmen', which posed the question 'what responsibilities to society can business people are reasonably expected to assume? The nature and scope of corporate social responsibility has changed over time. Corporate Social Responsibility (CSR) is used to describe businesses' integration of social and environmental issues into decisions, goals, and operations and in their interaction with their stakeholders on a voluntary basis. Other terms for CSR are Corporate Responsibility, Sustainability, Corporate Citizenship, Ethical Business Practices, Social/Environmental Responsibility, Triple Bottom Line, Environmental and Social Stewardship. In simple words, corporate social responsibility is interchangeably used with corporate sustainability reporting. The concept of sustainability is defined as "Meeting the needs of the present generation without compromising the ability of future generations to meet their own needs." Philip Kotler stated that CSR is a commitment to improve community well being through discreationary business practises and contribution of corporate resource. According to world business council for sustainable development…"Corporate social responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large". International Finance Corporation defined that corporate social responsibility is the commitment of functional businesses to contribute to sustainable economic development by working with employees, their families, the local community and society at large to improve their lives in ways that are good for business and for development. According to CSR Asia**,** "CSR is a company's commitment to operating in an economically, socially and environmentally sustainable manner whilst balancing the interests of diverse stakeholders."

OBJECTIVES OF STUDY

The aim of the present study is to explore global phenomenon in CSR, and examine the corporate social responsibility initiatives and trends of Indian companies on selected CSR indicators in comparison to Asia and world.

CORPORATE SOCIAL RESPONSIBILITY INITIATIVES: AN ANALYSIS

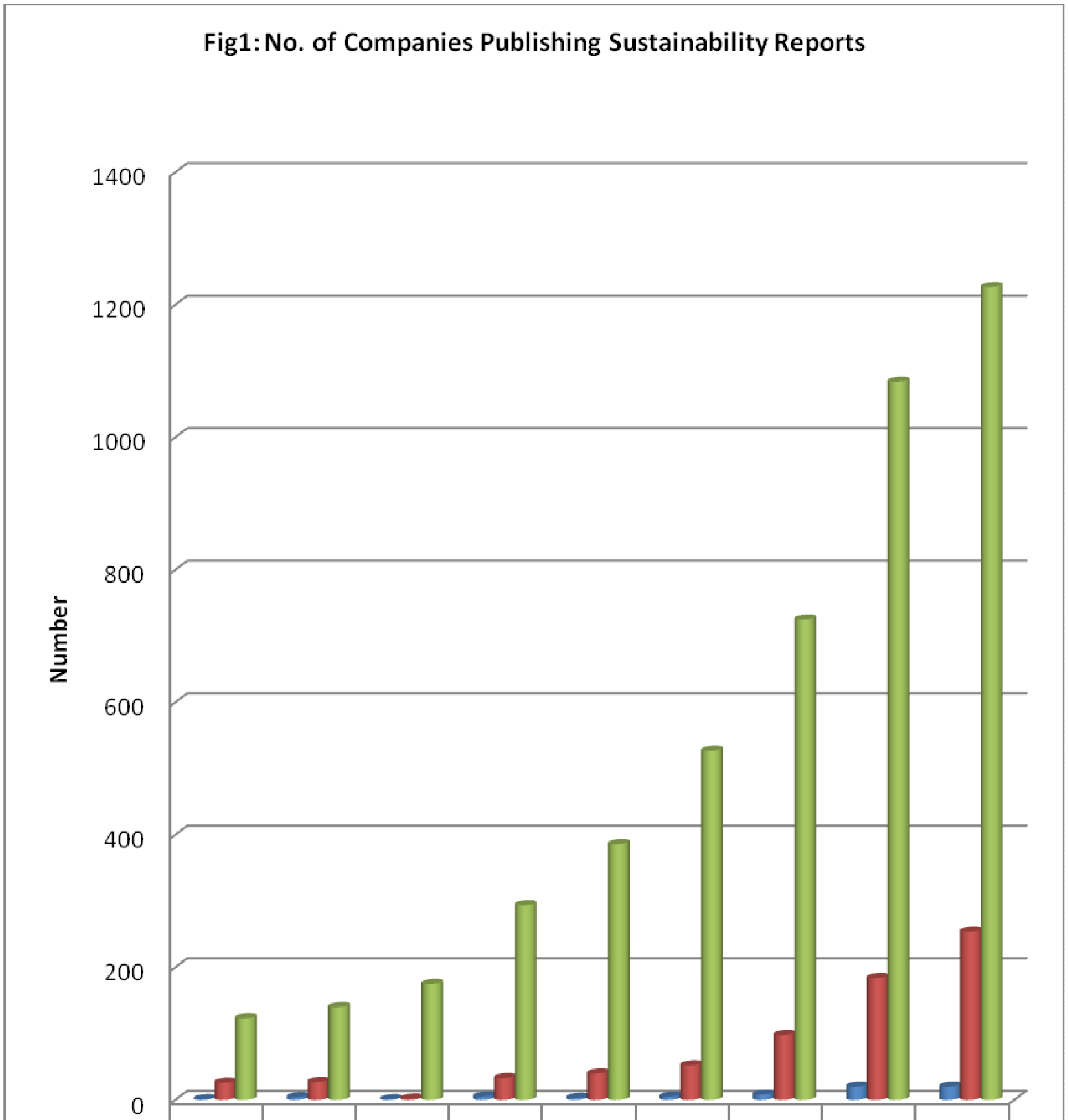
The findings relating to CSR initiatives in Asia are highlighted as follows:

1. It is found that India has emerged as a prominent country among the top 10 Asian countries that are paying an ever-increasing significance towards corporate social responsibility (CSR) disclosure.
2. The study observed that there is rising trend in publication of corporate sustainability report in India, Asia, and at the entire global level. It is found that the number of companies publishing CSR report in India, Asia, and World is 20, 254 and 1227 in 2009 respectively, whereas this

number has been 1, 26 and 123 in 2001 for India, Asia, and World. The study observed a significant rise in the companies publishing CSR reports in the last five years as depicted in table and fig 1.

Table 1: Number of Companies Publishing CSR Reports

Year	**No of Companies Publishing Sustainability Report**		
	India	**Asia**	**World**
2001	1	26	123
2002	4	27	140
2003	1	2	175
2004	5	33	294
2005	3	40	386
2006	5	52	527
2007	8	98	725
2008	20	184	1084
2009	20	254	1227



	2001	2002	2003	2004	2005	2006	2007	2008	2009
india	1	4	1	5	3	5	8	20	20
asia	26	27	2	33	40	52	98	184	254
world	123	140	175	294	386	527	725	1084	1227

3. The study observed that 80 percent the top ten companies' in 2009 ASR list was dominated by Australian companies, and it was followed by two Indian companies i.e. Tata Consultancy and ITC.

Table 2: Ranks & Percentage Score of Asian Companies			
Rank	Company	Stock Exchange	2009 (%)
1	ANZ Banking Group Ltd.	Australia	98.0
2	BHP Billiton Limited	Australia	95.1
3	Tata Consultancy Services Ltd.	India	90.2
4	Westpac Banking Corporation	Australia	89.2
5	Telstra Corporation Limited	Australia	89.2
6	National Australia Bank	Australia	87.3
7	ITC Ltd.	India	85.3
8	Rio Tinto Limited	Australia	84.3
9	Woolworths Limited	Australia	83.3
10	Wesfarmers	Australia	82.4

4. In India, high levels of disclosure are observed predominantly from large companies with recognized brands such as Tata and Infosys. Leading Public Sector oil companies such as ONGC and the Indian Oil Corporation also have reasonable levels of disclosure.

Table 3: Ranks & Percentage Score of Indian Companies

Rank in India	Rank in total ASR	Company	2009(%)
1	3	Tata Consultancy Services Ltd.	90.2
2	7	ITC Ltd.	85.3
3	14	Infosys Technologies Ltd.	80.4
4	17	Larsen and Toubro Ltd.	79.4
5	24	Reliance Industries Ltd.	71.6
6	32	Oil and Natural Gas Corporation Ltd.	62.7
7	37	Indian Oil Corporation Ltd.	58.8
8	42	Bharti Airtel Ltd.	56.9
9	46	Steel Authority of India Ltd.	55.9
10	56	NMDC Ltd.	51.9

5. **Corporate Governance, Codes, and Policies:** This indicator examined the availability and communication of company policies and codes of conduct in relation to key CSR factors including corporate governance, risk management, anti-corruption, labour and human rights issues. The percentage score of top five countries on Governance, codes and policies is 83.3, 74, 67.3, 66.5, 63.3 for Australia, India, Hong Kong, China and Thailand respectively.

Table 4: Governance, Codes and Polices Score

Countries	**Governance, Codes, and Policies (%)**
Australia	83.3
India	**74.0**
Japan	49.8
China	66.5
Hong Kong	67.3
Malaysia	59.6
Philippines	47.5
Thailand	63.3
Singapore	50.8
Pakistan	35.2
Average across countries	59.7

Out of 10 Asian countries, 50 percent of the countries has depicted better than the percentage average across countries. Australia and India occupied first and second position on disclosure in corporate governance, codes and policies.

6. **Corporate Social Responsibility Strategy and Communication:** This indicator evaluated corporate strategy on CSR and the way it is communicated to stakeholders through reporting

initiatives i.e. internationally recognized reporting guidelines, CSR training and awareness and alignment with voluntary CSR standards in company operations.

Table 5: CSR Strategy and Communication Score

Countries	CSR Strategy and Communication (%)
Australia	68.2
India	**44.5**
Japan	60.7
China	41.6
Hong Kong	37.3

Table 6: Corporate Environmental Disclosure Score

Malaysia	23.4
Philippines	36.6
Thailand	23.2
Singapore	14.1
Pakistan	10.2
Average across countries	36.0

It is observed that average CSR strategy and communication score across countries is 36; and Australia, India, Japan, China, Hong Kong, Philippines has outperformed the average score of the selected countries. The study observed that Australia, India, and Japan are top three counties for its CSR Strategy and communication.

Countries	Environment (%)
Australia	70.3
India	**47.8**
Japan	70.6
China	34.4
Hong Kong	37.5
Malaysia	28.4
Philippines	26.9
Thailand	15.9
Singapore	20.9
Pakistan	19.1
Average across countries	37.2

7. **Corporate Environment Disclosure:** This indicator assessed the level of environmental data, targets set by the company, and the way it is reported to stakeholders. Indicators include environmental management systems, emissions data, the use of renewable energy; customer and employee focused environmental Initiatives. Analysis of table 6 clearly reveals that companies in 4 countries i.e. Australia, Japan, India and Hong Kong have shown better disclosure percentage score on environmental disclosure than the average across countries.
8. **Community Investment Initiatives:** Community and development investment initiatives are well known aspects of CSR in an Asia with its rich history of philanthropy. The community and development initiative score (table 7) clearly reveals that its average score is 34.5. It is observed that 6 out of 10 countries have registered score higher than the average score. India, Australia and China have emerged as the top three nations in this CSR initiative.

Table 7: Community and Development Score	
Countries	**Community and Development (%)**
Australia	51.5
India	53.0
Japan	15.5
China	48.0
Hong Kong	38.5
Malaysia	39.0
Philippines	41.0
Thailand	25.0
Singapore	18.0
Pakistan	15.5
Average across countries	34.5

9. **Total Country Score:** The companies in India have the second highest rating for disclosure overall, which was topped by Australia. It is evident as revealed in table 8 that companies in 5 out of 10 countries i.e. Australia, India, Japan, China and Hong Kong have shown better performance than the average across the countries.

Table 8: Total Country Score	
Countries	**Total Country Score (%)**
Australia	68.3
India	**53.2**
Japan	50.7
China	43.5
Hong Kong	42.0
Malaysia	36.0
Philippines	31.7
Thailand	29.5
Singapore	25.5
Pakistan	18.0
Average across countries	**39.8**

CONCLUSION

In the era of globalization, CSR has emerged as a major responsibility and challenge of our times. In a world of ever changing challenges, corporate sector across the world is shifting its approach from compulsory financial reporting toward innovative voluntary corporate sustainability reporting. CSR is the result of vision of growing sense of responsibility of the business community to improve transparency and accountability to the wider community, and not just to stakeholders. CSR has gone main stream for the many of the world's companies and is headed in the same direction in India also. India has emerged as a prominent country paying an ever-increasing attention towards corporate social responsibility (CSR) disclosure. Indian companies TCS and ITC with 3rd and 7th rank respectively have emerged in top 10 ASR 2009 list. Indian companies have shown its presence in the top two positions in most of the CSR indicators i.e. Corporate Governance, Codes, and Policies; Corporate Social Responsibility Strategy and Communication; Corporate Environment Disclosure; Community Investment Initiatives; and total industry score. To conclude, it is evident that the concept of CSR has emerged as a promising benchmark for companies not only in Asia but across the world as a whole. However, the biggest challenge faced by companies is to develop a CSR strategy to find tangible and business focused metrics linked to ethical, social and environmental performance in order to meet stakeholder demands and expectations.

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Reviewing Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS)

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ABSTRACT

Right to work is in fact right to live. All other rights are meaningless in the absence of right to work which is in fact right to live because when we have nothing to earn then how can we have any thing to eat and survive. In the present scenario, we see that the World is going through great transformations and liberalization, privatization, globalization etc. are setting new trends and opportunities of development among under developed and developing countries In 1992 India has adopted Globalization, Privatization and Liberalization as policy matter and it created new challenges before all round and overall development of the state. Therefore, in this light Mahatma Gandhi National Rural Employment Guarantee Scheme in lump sum the right to work has become the most important right in the present scenario. It guarantees 100 days of employment in a financial year to every rural household whose adult members are willing to do unskilled manual work. The Act was came into force in February 2006. Certain studies undertaken by Desarda (2006), Puri (2006), Biswas (2007), John (2008), Jha (2008) and Rao (2008) investigated that Mahatma Gandhi National Rural Employment Guarantee Act is a revolutionary stem for Indian poor. The field reports reveal that the implementation of the act has brought successful results and has provided work opportunity to the villagers in native place. Despite significant improvements in the expansion and implementation of MNREGS in Himachal Pradesh, there remain certain pertinent problems associated with the functioning of MNREGS machinery.

MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT:

In the fifty-sixth year of the Republic of India, Parliament passed "National Rural Employment Guarantee Act" (NREGA 2005) towards partial fulfillment of a constitutional obligation under Article 41 of the Indian Constitution that provides a non-justifiable 'Right to Work' to the citizens of the country and directs, "The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work in case of unemployment. The Act received assent of the President on September 5, 2005 and was notified in the Gazette of India on September 7, 2005. Recently, in 2009, the existing scheme has been renamed and is now known as Mahatma Gandhi National Rural Employment Guarantee Scheme. The jobless growth in the 1990's, stagnation or even decline in the growth of agricultural productivity, distressed farmers committing suicides in various parts of the country, increased migration from rural to urban areas were the larger socio-economic context of the MNREGA 2005. NREGA draws heavily on the experiences of a number of rural wage employment programmes of the Central and State Governments. National Rural Employment Programme [NREP] 1980-89. Rural Landless Employment Guarantee Programme (RLEGP) 1983-89; Jawahar Rozgar Yojana (JRY) 1989-99; Employment Assurance Scheme (EAS) 1993-99; Jawahar Gram Samridhi Yojana (JGSY) 1999-2002; Sampoorna Grameen Rozgar Yojana (SGRY) since September 2001; National Food for Work Programme (NFFWP) since November 14, 2004 (SGRY and NFFWP now merged with NREGS 2005) were national level rural employment generation schemes. These programmes were supported by the Central Government and State Governments with shared part of the burden. Maharashtra Employment Guarantee Scheme (MEGS), which commenced in 1965, continued to be an important state-level wage-employment programme. Most of these schemes were formulated and implemented by the executive agency of the government with little involvement of the legislature. The National Rural Employment Guarantee Scheme (NREGS) enacted in

2005 is a landmark legislation which empowers the rural population with the legal right to demand work. There are statutory effects of employment generation in rural areas. Economic empowerment gives people a voice, both within and outside households. NREGS by increasing rural income is expected to help stem rural-urban migration which is a major contributor to urban poverty. Through NREGS rural income has increased, thus reducing the gravitational pull of the cities. However, various studies highlight implementation problems at grass root level. These includes, delay in the distribution of job cards to target group, delay in wage payment and payment of less than minimum wage, absence of worksite facilities, non availability muster rolls at the worksite, presence of private contractors and shortage of staff and delay in appointments.

SIGNIFICANCE OF THE STUDY:

A large number of studies have been conducted on NREGS at the National level by the government agencies as well as by the individuals but till date, in the state of Himachal Pradesh a very few micro level attempts have been made by the individual scholars and the government agencies by covering one aspect or the other. Due to sharp variation in topography, climatic conditions, infrastructural development, socio-economic conditions, income and employment avenues, methods, norms and thereby the results at national level studies on NREGS as well as policy implications cannot be applied to the hilly state like Himachal Pradesh. The present study aims to help in improving the implementation and functioning of officials and workers under NERGA schemes. Suggestions incorporated in the study will not only benefit the present scheme but may also help the similar types of schemes rendering the same job in the country. Since, the study is unique in itself and the findings of the study will be significant in the formulation of the policies and their proper execution.

OBJECTIVES OF THE STUDY:

1. To study the implementation of the transparency safeguards with respect to women participation, childcare and worksite facilities available in the study area.
2. To study the impact of scheme in empowerment and removal of unemployment among rural section.
3. To evaluate the nature of work in order to gauge their relevance in the socio-economic set up of the area.

AREA OF STUDY:

Out of 12 districts in the state District Mandi has been selected on the basis of the implementation of the NREGS in second phase. From Mandi district Gopalpur block was selected for comprehensive survey. However, selection of District and block was influenced by the availability of running schemes and ongoing work. Apart from canvassing with the help of above-mentioned structured questionnaires, relevant field level data/information was collected through Focused Group Discussions (FGDs) with the common villagers, womenfolk, youths and workers. Comments and conversations of the beneficiaries while at work were used for recording the number of workers, male and female present at the sites, actual wage payment, availability of facilities at worksites etc.

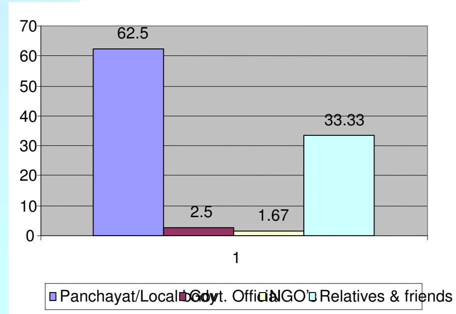
FINDINGS AND DISSCUSSION:

Source of Information about NREGS: An Analysis

62.5 percent respondents were educated about NREGS by the panchayat office, while, 33.33 percent got information about this scheme from their relatives and friends. A negligible number of respondents got information about NREGS (i.e. 4.17 percent) from government office or NGO's working in their local area.

Table No. 1

Source of Information	No. of Respondents	Percentage
Panchayat/Local body	75	62.5
Govt. Official	3	2.5
NGO's	2	1.67
Relatives & friends	40	33.33
Total	**120**	**100.0**



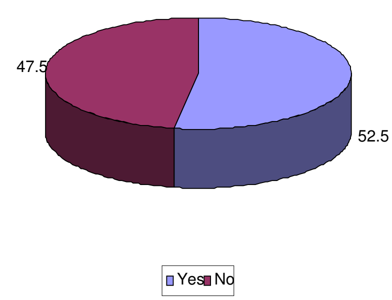
Note: Data compiled through questionnaire

Thus, it may be concluded that respondents in majority got information of the scheme from the panchayat office which is enough to infer that the role of members of the panchayat and local body is significant to make rural and innocent people aware about the scheme.

Table No. 2

Work Availability within 15 Days and NREGS: An Analysis

Opinion	**No. of Respondents**	**Percentage**
Yes	63	52.5
No	57	47.5
Total	**120**	**100.0**



Note: Data compiled through questionnaire

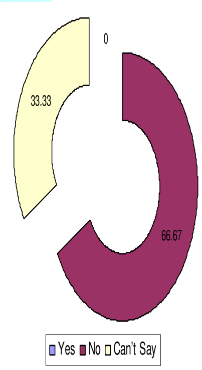
As per provision of the NREGA, employment is definitely provided within fifteen (15) days after enrollment under the scheme. It is observed that 52.5 percent of the total respondents replied positively while, 47.5 percent could not get work after fifteen (15) days of enrollment. It means though the majority which is more than half of the people got work according to the norms of the scheme yet lots of people haven't got work under NREGS norms. It further indicates that there may be violation of the norms of the scheme due to which people are not able to get employment within the stipulated time period.

In National Rural Employment Guarantee Act/Scheme there is provision of unemployment allowance for those who were not given work under the scheme within fifteen (15) days of filling the application after enrollment. Further more it was surprising that 66.67 percent of the total respondents were not paid the unemployment allowances while,33.33 percent of the respondents have not filled the applications for unemployment allowance due to the unawareness of the full details of National Rural Employment Guarantee Scheme and 33.33 percent beneficiaries were not in a position to make their remarks. It is further suggested that there may be some voids in publicity part of the scheme. Therefore, it should be publicized by the agencies concerned enabling the people to avail full advantages and opportunities.

Table No. 3

Unemployment Allowance and NREGS: AN Analysis

Opinion	**No. of Respondents**	**Percentage**
Yes	0	0.0
No	80	66.67
Can't Say	40	33.33
Total	**120**	**100.0**

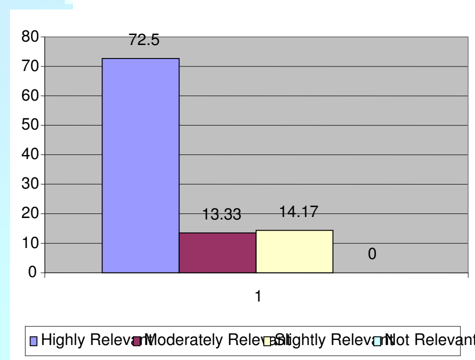


Majority respondents opined that National Rural Employment Guarantee Scheme is adequate enough and is highly relevant to provide employment to all unemployed people. Yet 13.31 percent of the respondents found the policy moderately relevant followed by 14.17 who rated that the policy is slightly relevant for all unemployed They believe that the well educated unemployed rural mass do not want to do unskilled manual work. Thus, the participation of number of well educated people participation is less but it is adequate enough to provide employment opportunities to all unemployed youths.

Table No. 4

Opinion of Respondents about Adequacy of NREGS:

Opinion	No. of Respondents	Percentage
Highly Relevant	87	72.5
Moderately Relevant	16	13.33
Slightly Relevant	17	14.17
Not Relevant	0	0.0
Total	**120**	**100.0**



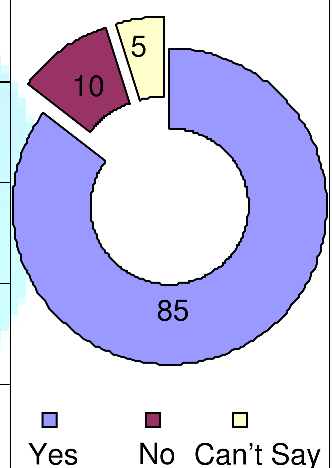
Note: Data compiled through questionnaire

As per norms of the NREGS, women should be given equal opportunity to work under the scheme. Thus, to know the interest of women to work under the scheme majority respondents that is opined that women of their area prefer to work under the National Rural Employment Guarantee Scheme whereas 10 percent refused. This shows that women are also showing their interest for the scheme and a very less number of women have not showed any interest to work.

Table No. 5

Women's Preference to Work under NREGS: AN Analysis

Opinion	**No. of Respondents**	**Percentage**
Yes	102	85.0
No	12	10.0
Can't Say	6	5.0
Total	**120**	**100.0**



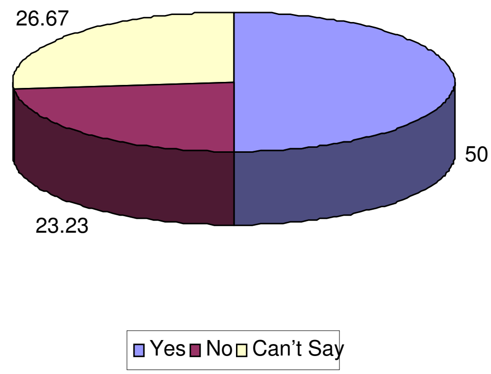
Note: Data compiled through questionnaire

It further concludes that tilt is found towards operational guidelines of the National Rural Employment Guarantee Act, that women should be given preference while distributing the work. Eleven percent of the people are satisfied with the wages paid to them.

Table No. 6

Utilization of Funds under NREGS: AN Analysis

Opinion	**No. of Respondents**	**Percentage**
Yes	60	50.0
No	28	23.23
Can't Say	32	26.67
Total	**120**	**100.0**



Note: Data compiled through questionnaire

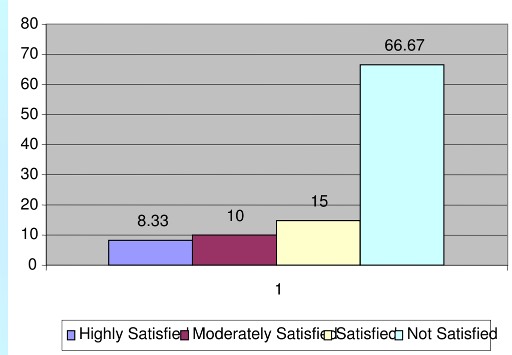
From the above table, it is clear that fifty percent of the total respondents believe that funds were used as per norms whereas, 26.67 percent respondents refused to say anything while 23.23 percent opined that money sanctioned for the scheme was not used as per norms. The majority of the people believe that funds were utilized at the right place at the right time in right manner and in the right direction. Yet noticeable number of respondents didn't say anything meaning by that there may be misuse of the funds allocated under the scheme.

On the basis of the compilation of data and on the personal observation of the researcher, it is observed that majority of the respondents were not found satisfied with the facilities provided by the executing agencies at the worksite, 8.33 percent respondents were found highly satisfied, 10 percent moderately satisfied and 15 percent were found up to the level of satisfaction regarding the worksite facilities and it was observed by the researcher that only facility of drinking water was present at the working site.

Table No. 7

Opinion of Respondents about Worksite Facilities

Opinion	No. of Respondents	Percentage
Highly Satisfied	10	8.33
Moderately Satisfied	12	10.0
Satisfied	18	15.0
Not Satisfied	80	66.67
Total	**120**	**100.0**



Note: Data compiled through questionnaire

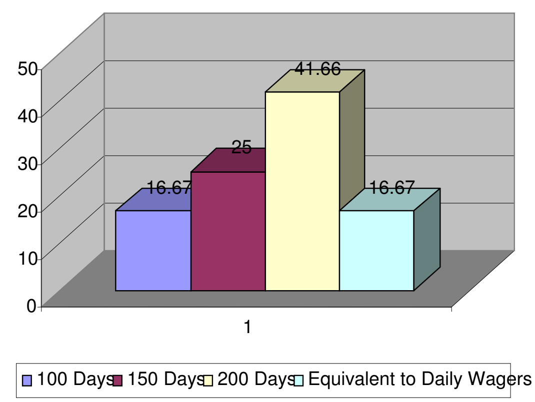
Worksite Facilities in NREGS: AN Analysis

It may infer that the executing agencies or local body should increase the facilities like first aid, shelter and crèche at the worksite to boost the moral of NREGS beneficiaries.

Table No. 8

Number of Minimum Working Days – Opinion thereof

Opinion	No. of Respondents	Percentage
100 Days	20	16.67
150 Days	30	25.0
200 Days	50	41.66
Equivalent to Daily Wagers	20	16.67
Total	**120**	**100.0**



Note: Data compiled through questionnaire

Minimum Working Days in NREGS: AN Analysis

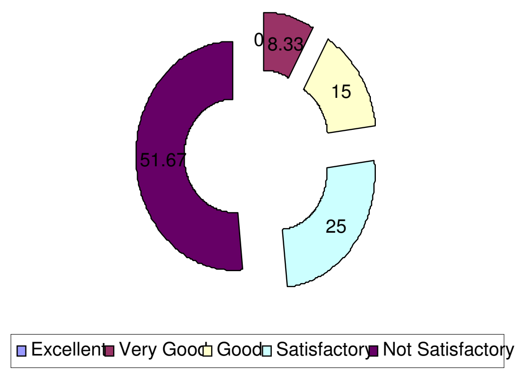
So far as the number of minimum working days is concerned, it is revealed that only 16.67 percent respondents were satisfied with the minimum 100 days employment in a financial year where as 83.37 percent which is enough to say were dissatisfied with the number of minimum 100 days employment. It may also be interpreted that majority of the respondents opined that this period of minimum hundred days must be increased up to 150 or 200 days. There was also a group of beneficiaries who supported the opinion to increase the working days equivalent to daily wages basis or at par with daily wagers i.e., provision of work for the whole year. Therefore, it is suggested that on the basis of the opinion majority this period of minimum 100 days work must be increased up to a level of satisfaction so that they may able to earn something not sufficient to their family for the whole year.

Table 9 indicates that about 48 percent of the respondents consider that the policy is meaningful up to the level of satisfaction and for welfare of rural masses as well as development of local areas. It means that nearly half of the beneficiaries are responding positively in favor of this scheme. People consider the National Rural Employment Guarantee Scheme meaningful and adequate for all unemployed people who desire to work under the scheme and good enough for the development. People find the policy capable to do well for the rural masses and are satisfied with provisions and norms of the scheme but they were not so happy with the executing agencies.

Table No. 9

Satisfaction Level of the Beneficiaries and MNREGS: An Analysis

Opinion	No. of Respondents	Percentage
Excellent	0	0.0
Very Good	10	8.33
Good	18	15.0
Satisfactory	30	25.0
Not Satisfactory	62	51.67
Total	**120**	**100.0**



Note: Data compiled through questionnaire

The NREGS can play a vital role in the development at local level; their opinion regarding this issue has been compiled in Table No. 10. A major chunk (90%) of the respondents agreed on the point which means people believe that such policies not only providing employment to unemployed but with the implementation of the scheme, many developmental works were done by local masses with their own choice and villages become work living to the great extent or to moderate. Only 10 percent believe that this policy is playing role to some extent in socio-economic development of the rural community.

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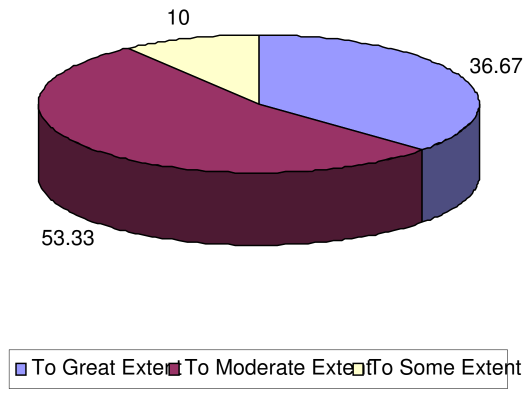
Table No. 10

Socio-Economic Development of the Rural People and NREGS: An Analysis

Opinion	No. of Respondents	Percentage
To Great Extent	44	36.67
To Moderate Extent	64	53.33
To Some Extent	12	10.00
Total	**120**	**100.0**



Note: Data compiled through questionnaire

Thus, it is concluded that this scheme is very helpful in the socio-economic development of the individuals to great extent and to moderate extent while a few viewed that this scheme has increased the socio-economic level of beneficiaries to some extent only. So, it is submitted that this scheme has changed the life of rural community in a positive way and is able to increase the socio-economic level of standards in every walk of their life.

On the basis of the analysis of the data shown in various tables and the personal observations of the researcher, it can be concluded that there is a mixed type of response of the common masses with reference to the working of the local bodies, officials and implementation part of the scheme. People are satisfied with the way union government implemented the scheme but are not happy with the working and implementation of the scheme by the local bodies. So far as the weaker section and women are concerned, people belonging to this class or category are not discriminated and are getting full opportunity to work under NREGS. Upper castes and economically sound people have no interference in the scheme. Those persons employed under the scheme got full wages for the work, fixed under the norms of the scheme. No work is done on contractual basis by the name of NREGS and the funds sanctioned for the scheme were used for the sanctioned works only. People are connecting themselves with the policy because the policy provides bread and butter to the rural community.

Though people are finding the policy meaningful and powerful enough to provide employment to maximum unemployed yet they find drawbacks in implementation and distribution of work under the scheme unevenly at grass root level by local bodies. People suggest increasing the number of works and number of working days. Some new works are to be added in the list which can be done by well educated unemployed rural mass without hesitation. People suggest to increase wage and time limit and assign work to all applicants and it will help the scheme to achieve maximum or above the norms and provisions in the policy for the welfare and socio-economic development of the rural community.

SUMMARY AND CONCLUSIONS

In India, agriculture has been the main source of economy and a very large proportion of its population is engaged in this primary sector and earning bread and butter for nearly two third of its population and contributes 18.5 percent towards the national income. It is an instrumental of income and employment generation which contributes more in the economy of a developing country, like India. The uneconomic size of land holdings due to division and fragmentation, and rapid growth of population which is dependent on agriculture more than the area available for cultivation, dependence of agriculture on vagaries of nature and famines etc. results in low productivity per farmer and per person. The employment opportunities in the rural areas are inadequate because of slow progress in small scale and cottage industries and scarcity of large scale industries in the rural areas. This is a summary of the findings of a study of the status of the National Rural Employment Guarantee Act (NREGA) in sampled Gopalpur Block of Mandi District in Himachal Pradesh.

Keeping in view the importance of agriculture sector and development of the rural people thereof, the government of India has announced various productive and supportive measures in this regard. Being developing country, India is facing many problems and besides many other problems, unemployment is a great problem before the development of the country. In many productive and supportive measures for the development of rural people the government of India has provided 'Right to Work' in fact 'Right to Live'. All other rights become meaningless in the absence of right to work because when we have nothing to earn then how can we have anything to eat and survive.

Therefore, in this light National Rural Employment Guarantee Scheme – 2005 launched on February 02, 2006 is a primary instrument to combat rural unemployment, hunger and poverty by providing guaranteed one hundred days of employment in a financial year to every rural household whose adult members are willing to do unskilled manual work. Keeping it in mind, the picture emerging from the brief investigation brings the reality about NREGA-2005 or NERGS and its provisions and implementing the scheme at grass-root level of rural community. The researcher found on the basis of the questionnaire, observations and discussions with the beneficiaries and others about right of equality, unemployment allowance, and awareness about the scheme, interference by upper caste and economically sound people and discrimination level on different demographic characteristics.

Respondents of all age, sex, caste gave a mixed reaction for the scheme. Besides their response, the personal observations of the researcher are also given space in this chapter. It has been found that the people of all age group are showing their interest for the scheme and are keen to participate and do work under National Rural Employment Guarantee Scheme. The scheme is capable enough to attract people of all age group, the people belonging to big sized family, SC & ST category. Besides all these factors, the scheme in Gopalpur Block of District Mandi is free from political interference and external agencies pressure. The people belonging to upper caste did not make use of their influence nor do the economically well of people control the working of the scheme in the region. The scheme is free from all sort of external pressure and their influence.

The present study reveals that all the registered persons are not getting work within fifteen (15) days. Majority of the people do not know about filing the application for getting work after enrollment which means the publicity agencies are not doing their job properly. Many important points of the policy are not publicized by these agencies. The study shows that the government agencies are implementing the policy in the right way but at grass root level the local bodies are still weak in implementation and promotion of the policy for welfare of local poor people. The government officials are doing their job of monitoring and checking the works undertaken under the scheme is satisfactory.

It has been observed that the levels of awareness among workers in GPs are very low. This is primarily due to the large use of the print media for most of its NREGA awareness campaigns. These included advertisements in local newspapers, hoardings in and around government and pantheist buildings, important provisions of the Act published behind the job cards and the painting of some of the important provisions of the Act on important landmarks in villages. Most people were not aware of their right to apply for unemployment allowance was evident from the fact that not a single individual application had been made for this under NREGA.

While most workers are aware about the '100 days of work' provision, they are nuclear about the fact that each nuclear family gets one Job Card (JC). Most worksites we visited had workers who did not have a Job Card but were working on a family member's Job Card. For example a boy (aged 18 or above) who recently got married would keep working on his family's Job Card not realizing that he and his wife are entitled to a new Job Card (i.e. 100 days of work). Most workers knew that the payments were to be made within 15 days of completing the work but they didn't know what they should do if the payments were not made within 15 days. While there is a provision to demand for compensation in the event of delayed payments no one is aware of it. For example in sampled panchayats wage payments for some of the workers had been delayed by two months.

It has been observed that the most important factor behind the poor performance of NREGA in the GPs has been the near non-implementation of most of the transparency safeguards. This is mainly a result of the apathetic attitude of the Gram Rojgar Sevaks (GRS), Sacheev and Sarpanch towards educating people about these provisions and also low levels of literacy among the population of these Gram Panchayats. It has been also found that in this GPs surveyed found that the Job cards were either with GRS/Pradhan/Sarpanch or they had been distributed a day before we had arrived. Most Job cards had incomplete entries and in some cases without entries the worker had received payments. Most people were unaware about the importance of getting their Job cards updated. There was also a trend of 'submitting' Job cards when the workers began work at a particular NREGA worksite. This was a disturbing trend as this meant that the worker' Job cards were with the implementing agency till the work was completed.

It has been found that the most of the sample worksites surveyed had minimal worksite facilities. Only drinking water was available at most sites and some persons had been employed to provide water to the workers. While there was natural shade available at worksites of Gram Panchayat Nawani, workers complained about there being no provision of 'shade for resting' at worksites in the Gram Panchayat Kot and Smaila. First-aid kits and crèches were not available in the study area at any of the worksites. Studying the overall impact of the scheme in Gopalpur Block in District Mandi of Himachal Pradesh, the researcher found that this policy is playing vital role in providing employment opportunity, locating assets and empowering women and weaker section of the society. The scheme is really meaningful and capable of providing social security to rural masses.

It can be said that even though the implementation of NREGA in GPs was not up to the mark, our interaction with the workers showed that most of these workers felt that NREGA had made their lives better. The problem was that at some of these worksites workers had done, on an average, 15-20 days of work that was not enough to bring about major changes in the lives of the workers, however, the potential of

NREGA as a means to bring about a change in the lives of these workers was immense. In sampled GPs it has been observed that employment followed a very seasonal pattern as most workers were agricultural labourers and relied heavily on the cropping patterns being followed in the village. Another important impact of NREGA has been that of increased household incomes because women can now earn higher wages. This was a point reiterated by most workers when asked about how NREGA had affected their families. Many households now feel more comfortable in allowing their women to work as manual labourers because with the absence of contractors and similar wages, a better work environment for women and the weaker section of the society is a good example to explain this change in attitude.

Finally it can be observed that while the implementation of NREGA in most study area of Gram Panchayats in Gopalpur Block is not up to mark, the potential for NREGA to contribute in increasing socio-economic dynamics of rural household and development of rural infrastructure in the region is immense. If the presence of an educated Gram Rojgar Sevak in every Gram Panachayat has failed to initiate the required change in the implementation of NREGS in this region, it is the time that community participation is strengthened and public action should be initiated and it would lead to more awareness and better implementation of Mahatma Gandhi National Rural Employment Guarantee Scheme.

AREAS OF CONCERN

In order to better implementation of the scheme following areas needed for tuning:

- The wage payment should be done well in time because in the absence of provision of minimum wage payment any employment guarantee scheme cannot be able to improve socio-economic dynamics of the beneficiaries.

- The person belonging to low income group should be given preference to do work under the scheme.
- Time limit of one hundred (100) days should be increased so that people need not to wander in search of the work outside the village.
- The list of the work recommended by the government, which are done under the scheme should be increased as there are many other facilities which people want to have for better livelihood.
- As the NREGS not only deals with the provision to provide employment to unemployed but also deals with the developmental works done in the region. So there should be time limit to the sanctioned works for its completion.
- The government officials should make continuous and surprise visits to check the worksites where the work is on progress.
- There should be one committee for each ward that should advise about needs of the ward to the Panchayat.
- Vigilance group should be formed within the villages to check the working of the scheme. The members of this vigilance group should be neutral and no member should belong to the Panchayat or local body.
- Maximum works should be started in agriculture lean season.
- Preference should be given to such works under NREGS whose services and profit can be enjoyed by large number of people of the region.
- There should be general house to let people about starting of the new work

under NREGS, so that large number of people give application and apply for work under the scheme.

- Before sanctioning money, government should check whether the site proposed for the work is accurate or not and will it be in public welfare or useless for general public.
- The Deputy Commissioner should himself check the worksites so that the traces of political interference or preference to near and dear ones can be eradicated from the Block.
- Keeping in mind the well educated unemployed rural mass, some special units should be formed to provide respectable employment to them.
- The researcher observed that some of the workers were the retiree from the Indian Army or Government/Non-government jobs; it should be strictly prohibited to provide enough work to the registered persons under the NREGA-2005 norms.

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Stability of Beta: An Empirical Investigation on Nifty Stocks

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ABSTRACT

The concept of risk management assumes greater importance in modern day financial management. The risk involved in investment decision can be classified as systematic risk and unsystematic risk. Beta is as a proxy for systematic risk. Systematic risk assumes greater significant because it is cannot eliminated by the process of portfolio diversification. Beta reflects volatility of the stock with market. The portfolio managers make use of the beta while constructing portfolio. The objective of the study is to examine the stability of the beta in the Indian stock market with reference to selected stocks of NIFITY Index. The study adopts Chow break point test and Predictive test of chow test to testify the stability of beta and found that beta are stable in case of enlarged sample.

Introduction

In investment decision, an important element used frequently used is risk. In simple words risk can be defined as deviation of actual return from expected return. Markowitz (1952) quantified risk in terms of statistical parameter knows as variance. The risk of an asset can be classified into systematic and unsystematic risk. While the former is non-diversible risk and the latter is diversible risk. William Sharp defined systematic risk as the portion of an asset variability that can be attributed to a common factor. The objective of the study is to examine the stability of the beta in the Indian stock market from 2005 to 2009.

Importance of beta

Beta is widely accepted measures of systematic risk and is used by practitioners for capital budgeting decision, formation of portfolio and for performance evaluation. The beta has wide range of application in financial economics which include the following:

The Capital asset pricing model (CAPM) developed by Sharpe (1964) and Linter (1965) assumes that the beta coefficient is constant through time. The beta coefficient known as systematic risk measures compares the variability of an asset historical return to the market as a whole. That is, beta measures an asset expected change for every percentage in the benchmark index (Clarfeld and Bernstein,1977).

To evaluation of the performance of firms and the economic performance of individual investment decisions, the concepts of cost of capital have widely been used. Unless and until the profit of the unit is linked with equity o investment and it exceed the overall cost of und, one cannot arrive at the conclusion that the unit is viable. There are various factors that determine the cost of capital such as business risk, financial risk, inflation, uncertainty, interest rate uncertainty and liquidity risk (Patterson,1995)

Treynor (1965) has suggested that the appropriate measure of risk is the systematic risk or the beta of the portfolio. Treynor measures relate the rate of return earned over and above the risk-free rate to the portfolio beta. The portfolio beta is the slope of the characteristic line, which measures the portfolio's volatility relative to the market that is its systematic risk. The total risk of a portfolio consists of systematic and unsystematic risk and the latter can be diversified away. Treynor's measure, the return per unit of systematic risk.

Literature survey

Blume (1971), in a pioneering effort used the mean reversal technique to test the stationary of the coefficient of the market, the study found that portfolio betas tend to regress toward one over time and used this finding to produce better beta estimates.

Levy (1971) used weekly data; 52 weeks base periods; and 26 and 13 week subsequent periods and found that, portfolio betas are stable while individual security betas are unstable.

Alexander and Benson (1982) analysed two six-year sub-periods over the period 1960 to 1971 and found that 5 to 6% of stocks had varying betas. Bos and Newbold (1984) analysed ten years of datafrom 1970 to 1979 and found that 58% of stocks had varying betas.

Collins et al.(1987) analysed various sub-periods from1962 to 1981 on weekly data. When they analysed five-year sub-periods they found that 34% of stocks had varying betas. With ten-year sub-periods they found that 65% of stocks had varying betas

The hypothesis that betas are stable had been empirically rejected many times on the US market. Fabozzi and Francis (1978) analyzed six years of data from 1966 to 1971 and found that 8% of stocks had varying betas. Sunder (1980) analysed a range of sub-periods on data from 1926 to 1975. The sub-periods varied from seven years to fifty years. In the seven-year sub-periods the proportion of stocks with varying betas ranged from 2% to 47%. Over the fifty years 99% of stocks had varying betas. Alexander and Benson (1982) analysed two six-year sub-periods over the period 1960 to 1971 and found that 5 to 6% of stocks had varying betas. Bos and Newbold (1984) analysed ten years of datafrom 1970 to 1979 and found that 58% of stocks had varying betas. Collins et al.(1987) analysed various sub-periods from1962 to 1981 on weekly data. When they analysed five-year sub-periods they found that 34% of stocks had varying betas. With ten-year sub-periods they found that 65% of stocks had varying betas.

A number of studies on the Australian equity market have also found evidence of individual stock beta instability. Faff et al. (1992) analyzed ten years of data from 1978 to 1987. When they analysed five-year sub-periods they found that from 11% to 13% had varying betas. Faff and Brooks (1997) analysed a range of sub-periods on data over the period 1974 to 1992. When they analysed, five year sub-periods they found that the degree of beta instability ranged from 23% to41%. In seven-year sub-periods they found the degree of beta instability to range from 29% to 51%. In ten-year sub-periods the degree of stock beta instability varied from 28% to 61%. Finally, for the full nineteen years of data they found 67% of stocks to have varying betas.

Cheng and Boasson (2004) used a time weighted least square method to estimate betas of emerging markets and found that the betas for these markets do shift over time.

Data and Methodology

The data of this study is taken from ten stocks that formed a part of the NIFTY Index, such as HDFC, Cipla, ABB, Infosysis, ITC, L&T, MM, Unitech, Sterlite and Acc. These stocks are taken from ten different sectors and were the part of NIFITY Index throughout the study period. The study uses daily closing prices of ten stocks as well as nifty index. The study period is confined to five years from January 2005 to December 2009.the required data for the study had been downloaded from website of NSE. The study adopts Chow break point test and Predictive test of chow test to testify the stability of beta.

The daily return for stocks as well as market index were calculated as

$$R_{t=} (P_t / P_t - P_{t-1})$$

The following standard market model using OLS regression is used to compute beta these stocks.

$R_{j\,t} = a_j + b_j R_{m\,t} + u_{j\,t}$

Appling the above model, sixty monthly beta values were computed for each of ten stocks. The stability of the beta has been tested by chow break point test and predictive chow test.

The steps for running the Chow Break point test are:

1) Firstly run the regression using all the data, before and after the structural break, collect RSS_c.

$$y_t = \alpha_0 + \alpha_1 x_t + u_t$$

2) Run two separate regressions on the data before and after the structural break, collecting the RSS in both cases, giving RSS_1 and RSS_2.

$$y_t = \beta_1 + \beta_2 x_t + u_{1t}$$
$$y_t = \delta_1 + \delta_2 x_t + u_{2t}$$

3) Using these three values, calculate the test statistic from the following formula:

$$F - \frac{RSS_c - (RSS_1 + RSS_2)/k}{RSS_1 + RSS_2 / n - 2k}$$

Where critical values in the F-test tables, in this case it has F(k,n-2k) degrees of freedom.

The Predictive chow test statistic:

$$F - \frac{(RSS_c - RSS_1)/n_2)}{RSS_1/(n-k)}$$

The above test follows F distribution with $v_{1=}n_2$ v_2= (n-k) d.f., where $RSS_c$is the residual sum of square from the augmented sample with n_2 being the additional sample and$RSS_1$is the residual sum of square from the original samples with n samples

Analysis of Data

The calculated beta values exhibit no systematic pattern which is observed in the monthly beta value of sample stocks exhibited in Table I. Further beta values for the same stock are varying at different point of time. To testify the stability of beta statistically, the study has adopted chow break up test and predictive chow test

The stability of beta has been explored using monthly data on return of ten stocks for the period January 2005 to December 2009 by using Chow break point test. The study considered January 2008 as a break point and the results of the Chow break point test is exhibited in Table-II. The result infers that except Larson &Turbo all stocks exhibit stable beta and support the null hypothesis that betas are stable.

To examine the stability of beta for varying sample size, the study uses Predictive Chow Test and the results of which is shown in Table –III. The results shows that consistency of beta for eighteen months from the period of January 2005,for seven stocks except HDFC, Infosysis and L&T.the study further revealed that for the period of two years and three years from the period January 2005, except for HDFC all stocks show stability of beta. In case of a five year period from January 2005 to December 2009, all stocks exhibit stable beta.

Conclusion

The results of chow break point test, reveals that nine out of ten stocks maintained stability of beta and support the null hypothesis. The results of predictive chow test, further found existence of stable beta for all stocks incase enlarged sample period of five years. Our result also support earlier studies such as Baesel (1974), Altman et al. (1974), Blume (1975), and Roenfeldt (1978) showed that the longer the estimation periods, the more stable the beta estimates become. In simple, the study concludes that both return interval and the estimation period have a greater role to play in estimation of beta.

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Table 1: Beta Values of different Stocks

Month/ Year	Estimates of Beta Values									
	HDFC	CIPLA	ABB	INFOSYS	ITC	Land T	M &M	UNITECH	STER	ACC
Jan-05	1.14	1.41	0.41	1.02	0.19	1.06	1.16	1.52	1.68	0.73
feb	1.03	0.71	0.58	1.38	0.52	0.75	1.21	0.84	0.99	1.02
march	0.98	0.93	1.02	0.99	0.73	0.60	0.81	1.88	0.75	0.40
april	0.89	0.79	-0.05	1.36	0.54	0.83	0.46	0.63	1.33	0.61
may	0.39	0.30	0.42	1.47	0.49	1.11	1.61	-0.77	0.74	0.31
june	1.00	1.09	0.38	1.58	1.41	0.65	0.67	2.13	0.14	-0.05
july	0.95	0.96	0.60	1.11	0.18	0.34	0.57	0.02	1.05	0.88
aug	0.42	0.84	0.82	0.82	0.58	0.83	0.73	0.74	1.31	0.46
sep	0.94	0.84	0.22	0.82	3.61	0.85	0.44	0.97	1.59	0.70
oct	0.65	0.72	0.53	0.97	1.05	0.86	0.54	0.23	1.20	0.72
nov	0.61	1.11	1.21	0.91	1.42	1.01	1.32	-1.09	0.99	0.67
dec	0.62	0.62	0.73	0.84	1.20	0.72	1.33	-0.54	1.10	1.58
Jan-06	0.30	0.47	1.17	1.64	0.68	1.48	0.57	0.45	1.03	0.92
feb	1.09	1.07	0.50	0.75	1.51	1.34	0.75	0.67	0.17	0.74
march	0.59	0.90	0.18	0.83	1.48	1.17	0.98	0.57	0.95	0.96
april	0.67	2.86	1.22	1.31	1.00	0.75	0.90	-0.07	0.19	0.94
may	0.36	0.48	1.21	0.73	1.11	0.81	0.77	0.52	1.45	1.01
june	0.92	0.85	0.72	0.85	1.02	1.32	0.97	-0.43	2.07	0.97

july	0.92	0.65	0.97	1.60	0.97	1.20	1.45	0.42	1.68	0.85
aug	0.34	0.63	0.60	0.39	1.32	1.33	1.58	1.81	1.63	0.82
sep	0.96	1.35	0.45	0.96	0.99	2.09	0.83	1.16	1.56	1.03
oct	1.70	0.78	0.89	1.17	0.95	0.93	1.11	0.96	1.18	0.78
nov	0.64	0.83	0.62	0.19	1.08	0.95	1.09	3.12	1.22	0.67
dec	0.83	0.62	1.39	0.60	0.92	0.93	1.16	1.86	1.48	1.64
Jan-07	1.20	0.74	0.60	0.78	0.77	0.95	1.29	1.19	0.90	1.06
feb	0.78	1.04	0.98	0.97	0.08	1.39	1.25	1.25	1.04	1.06
march	1.13	0.68	0.89	1.08	0.76	1.36	1.03	0.26	0.88	0.69
april	0.95	1.39	0.66	0.79	0.67	1.06	1.31	1.45	1.36	0.92
may	0.79	0.53	0.27	0.78	0.69	0.50	1.05	0.96	0.85	0.39
june	1.11	0.63	-1.13	0.08	0.55	1.55	1.18	1.83	1.51	1.94
july	1.28	0.52	1.72	0.40	-0.37	1.65	0.70	1.60	2.00	0.84
aug	0.87	0.60	1.17	0.62	0.74	0.94	0.97	0.46	1.69	1.12
sep	1.38	0.03	0.31	0.57	0.29	0.69	1.10	0.89	0.99	0.57
oct	0.98	0.41	0.64	0.18	0.59	1.30	0.70	1.30	1.11	1.43
nov	1.76	0.21	0.86	0.90	0.66	1.04	0.51	1.34	1.94	0.35
dec	0.81	0.18	0.65	0.55	0.31	0.70	0.79	0.87	1.54	0.42
Jan -08	0.82	0.80	0.85	0.54	0.98	0.84	0.86	1.93	0.99	0.75
feb	0.50	0.45	0.56	0.58	0.81	1.01	0.79	1.87	1.29	0.54
march	1.01	0.33	0.94	1.10	0.60	1.14	0.31	1.51	1.09	0.61

april	1.17	0.85	0.71	0.82	0.75	1.27	0.95	1.27	0.64	0.12
may	0.98	0.39	0.53	1.11	1.14	1.18	0.65	1.45	0.79	0.85
june	1.24	0.65	0.78	0.83	0.61	1.08	0.82	1.92	0.81	0.98
july	1.61	0.43	0.93	0.68	0.72	1.28	0.83	1.56	0.65	0.65
aug	1.65	0.37	0.57	0.47	0.50	1.18	0.78	1.94	0.19	0.98
sep	1.26	0.58	0.86	0.98	0.39	1.07	0.65	1.40	1.31	0.26
oct	0.86	0.65	1.06	0.72	0.49	0.74	1.37	1.98	1.63	0.64
nov	0.84	0.47	0.96	0.63	0.36	1.12	0.75	0.96	1.67	0.64
dec	0.82	0.53	0.79	0.64	0.60	1.16	1.19	1.86	1.28	1.34
Jan-09	0.82	0.37	0.69	0.58	0.38	1.12	0.75	1.94	1.63	0.70
feb	0.94	0.23	0.90	0.90	0.17	1.08	1.15	1.67	1.49	0.83
march	1.12	0.26	0.52	0.77	0.92	1.28	0.77	1.57	1.34	0.66
april	0.53	0.74	0.67	0.55	0.07	1.35	1.20	1.32	1.45	0.42
may	0.97	0.52	0.66	0.81	0.73	1.34	1.31	1.50	1.29	0.68
june	0.47	0.51	1.23	0.43	0.81	1.40	1.07	2.16	1.18	1.40
july	0.79	0.42	1.11	0.56	0.32	1.32	1.10	1.83	1.10	0.89
aug	0.41	0.56	0.98	0.67	1.21	1.19	1.50	1.62	1.53	1.15
sep	0.55	0.41	1.19	0.64	0.66	1.29	1.58	2.43	2.14	1.25
oct	0.50	0.52	0.87	0.66	0.72	0.72	0.98	2.37	1.53	0.14
nov	0.72	0.34	0.74	0.91	0.84	0.73	1.09	1.95	1.71	0.99
dec	0.99	0.09	0.46	0.66	0.75	0.86	1.38	2.18	1.67	0.44

Table 2: F(Chow Break Point Test) Statistic of Different Stocks

Stock	F(Cal)	F(Tab)
HDFC	0.642	3.320
CIPLA	0.683	
ABB	3.629	
INFOSYES	0.307	
ITC	0.699	
L and T	10.902*	
M and M	0.012	
UNITECH	0.954	
STERLITE	0.798	
ACC	0.556	

Note:* indicates the test statistic F is significant at 5% level of significance

Table 3: Calculated F(Predicative test of Chow test) Values of Different Stock for Varying Sample Sizes

Stocks	n = 18		n = 24		n = 36		n = 60		
	F(Cal)	F(Tab)	F(Cal)	F(Tab)	F(Cal)	F(Tab)	F(Cal)	F(Tab)	F(Tab)
HDFC	5.693*	3.320	5.524*	2.910	4.548*	2.740	0.198	3.15-3.23	
CIPLA	1.950		2.053		2.254		0.207		
ABB	2.127		2.145		1.157		0.018		
INFOSYES	5.551*		2.374		2.741		0.180		
ITC	1.509		1.559		1.748		0.158		
L and T	4.159*		2.262		1.700		-0.012		
M and M	1.908		1.963		2.126		0.073		
UNITECH	0.163		0.171		0.180		0.187		
STERLITE	0.311		0.359		0.461		-0.035		
ACC	2.413		2.546		2.222		0.112		3.15

Note:* indicates the test statistic F is significant at 5% level of significance

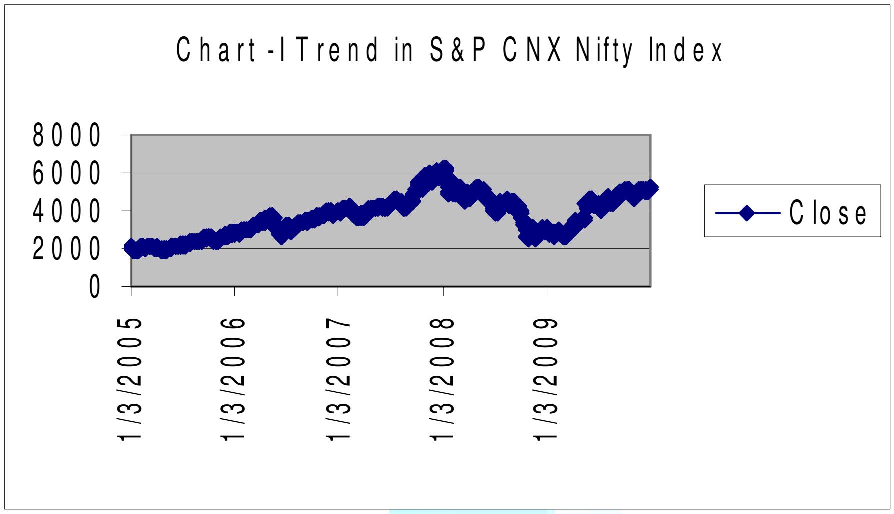
Chart -I Trend in S&P CNX Nifty Index
8000
6000
4000
2000
0
1/3/2005
1/3/2006
1/3/2007
1/3/2008
1/3/2009
Close

OPERATIONAL EFFICIENCY OF MERGED BANKS IN INDIA – DISCRIMINANT ANALYSIS APPROACH

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ABSTRACT

Banks play a vital role in the economic prosperity of any nation. Since 1991 the banking sector in India undergone radical reforms both in technology and services front. Today banking institutions in India are technology driven and doing vibrant operations par with foreign banks. The economic reforms led large number of mergers and acquisitions within India. The present study conducted for a period of ten years from 1995-'96 to 2004-'05. The secondary data were collected from different official sources like RBI, PROWESS and other prominent websites. This study aims to know the operational performance of merged banks before and after merger as well as factors influencing the operational performance of those banks using discriminant analysis.

INTRODUCTION

The Indian business environment has been altered radically since 1991 with the changes in the economic policies and introduction of new institutional mechanism. This change in the business environment, which is the effect and impact of Liberalization, Privatization, Globalization, Information technology and Financial awareness, has contributed fuel to a dynamism in the Indian Economy. Economic environment in India has been made more favorable for the growth of the various business enterprises along with competitive strength. Such growth, opportunities and challenges come in various shapes and size in the dynamic global market environment require innovative approaches. In order to meet the needs and requirements of financial stack holders and other players in the market, it is necessary to reorient the strategies adopted by the firms. These strategies considered opportunities for growth both internally and externally.

The sweeping wave of economic reforms and liberalization has transformed the business scenario all over the world. The most significant development has been the integration of national economies with market oriented globalised economy, resulting in shrinking of the size of the market. And it becomes externally difficult for all the companies to survive, unless they cut cost and maintain price. In such a situation M&A which facilitates elimination of duplication of the administrative and marketing expenses is inevitable. To fund this M&A activities and also to continue the business activities on a large scale, the traditional customers of a banker turn away increasingly from traditional loan to new alternative services. As a result of changes in the expectations of the corporate customers, banks are constrained to rethink their business and devise new strategies to face the challenges before them. Moreover, foreign banks have been permitted to bring their share up to 74% in the Indian banks. This adds more oil to the spreading fire. The foreign banks would consider M&As as a quick method of inorganic growth. Therefore, Indian Banks are also forced to think on the same line to face the competitions effectively.

In the changing scenario, every business including service institutions like banks strive hard for survival in this growing era of core competence. Due to intense completion among the banks, every bank is doing something better than others to capture the business. It is necessary for any business firms to analyze its financial health. In this regard, it is necessary to analyze the financial health of merged banks to establish its financial health in the form of profitability, liquidity, solvency etc. This analysis provides a clear picture of the financial soundness of a firm and a road map outlining the directions the business is heading to. So an attempt has been made in this present chapter to have an insight into the examination of financial health of merged banks in India selected for the study.

WAVE OF M&A

During post independence period, it was considered necessary to reduce inequalities between different regions and groups. At that time there were only a few banks and bankers who enjoyed good reputation and some other banks struggled a lot to survive as it were operated under various types of tensions and pressures. As it was extremely difficult to mobilize adequate resources for development to remove inequality, a sound financial system, especially the well functioned banking system, was inevitable along with better service to customers and through them, to nation. Hence, the then government of India under the stewardship of late Smt. Indira Gandhi decided to nationalize some of the important banks in the country. Accordingly during July 1969, 14 major banks which held deposits exceeding Rs.50 crores and in 1980, 6 more banks which held deposits exceeding Rs.200 crores were nationalized. This laid the foundation for merger activities.

The nationalized banks are under the control of Reserve Bank of India, with the assurance of guarantee to safety and security. Through nationalization, the government aimed to remove control by few, provision of adequate credit for agriculture, small scale industries and exports, encouragement of new classes of entrepreneur and giving a professional bent to the bank management. These nationalized banks, by opening branches in the villages, offer not only financial assistance but also provide advice and guidance on several vital problems concerning the rural folk and the economically backward sections in the villages derive unique benefits.

OBJECTIVES OF THE STUDY

The discriminate factor is performed in order to identify the discriminating variable between the groups and find out the relative important of these variables in discriminating between the groups.

1. To analyze and compare the operational performance of merged banks before and after merger.
2. To study factor influencing the operational performance of pre and post merger period.

REVIEW OF LITERATURE

Sanjay Kumar[1] (1998) took a study on "Profitability of Indian Commercial Banks – The Key Discriminators" and attempted to explore the relationship between bank profitability and its determinants. The study used a model with the most critical variables / ratios using multi-discriminant analysis for the precise analysis and measurement of profitability. The study revealed that only four most discriminating variables out of 14 variables are the key discriminators which can be used in profitability analysis of banks, measuring their financial health and prudent selection of banks for investment, lending or deposits.

Devivedi V. K[2] (1999) has examined Merger and Acquisition as a Tool for Business to Improve the Potentialities in his study on "Mergers and acquisition – Possibility Banking Industry". It is revealed by his study that M&A can be used to improve the financial position and increase the profitability if it is carried out systematically and professionally by giving due attention to the HR issues.

Laxman G[3] (2004) in his research article "Impact of Merger and Acquisitions on Financial Performance of Private Sector Banks", has made an attempt to asses the impact of merger on financial performance in terms of CAR, NPAs, Interest income, Interest Expenditure, Operating expenditure, Provisions and Contingencies, Spread, Gross Profit, Net profit as percentage to total assets before and after merger. The study concluded that there is a decreasing trend in spreads and increasing tendency in NPAs of the target bank. But these indicators are more or less remained the same when compared to average indicators of the Private Sector Banks during the period under study.

Selvam. M, Vanitha.S, Babu.M[4] (2005) carried out a study entitled "Merger and Acquisition in Banking Industry – An Evaluation". The study was carried out with the objective of analyzing and comparing the financial performance of merged banks before and after merger in terms of growth of total asset, profits, revenue, investment and deposits. The sample units of the study were State Bank of India, Oriented Bank of Commerce, Centurion Bank, Bank of Baroda, Union Bank of India, HDFC Bank and ICICI bank. The study revealed that the ICICI Bank achieved the higher growth rate in all respects except deposit. It is concluded by the study that the banks may develop opportunity measure to gauge the success and also to improve their post merger performance.

Sathya Swaroop Debasish[5] (2005) in her study "Merger in Indian Banking – Case of ICICI Bank and Bank of Madura" has analyzed the conceptual overview on the series of recent merger and acquisitions. It suggested that the removal of entry barriers saw emergence of private sector banks (both old and new) in India and how market forces are compelling these to conglomerate and consolidate their competitive abilities.

Sivaram Y.G[6] (2006) in his article titled on "M&As in Banks – The Indian Dilemma", discussed the scenario of M&A activities in India. He concluded that the banking sector has gained momentum in merger and acquisition activities and the factors such as globalization, technological changes regulatory, flexibility have triggered the M&As in the Indian banking sector.

Kavitha Bhatnagar[7] **(2006)** in her study entitled on "M&A in Indian Banking Sector", discussed the India Banking Association document "Banking Industry Vision 2010". It is visualized that the merger in India either between the public sector banks, or public sector and private sector banks is the logical thing to happen in the competitive race. The study concluded that merger and acquisition route is providing a quick step to acquire competitive size, an opportunity to share markets and reduce the cost of product development and delivery.

Ranjan Mugarjee[8] **(2007)** carried out a study on "An Overview of Pre and Post M&A Deals" with the objective of analyzing the need for the attention of professional in finance, law, strategy etc. The study revealed the danger areas and pit falls of the integration process and due diligence.

METHODOLOGY

Sources of Data

The study is based on secondary data. The data were collected from the official directory and data base of Centre for Monitoring Indian Economy (CMIE) namely PROWESS. The published annual reports of the selected banks related websites, magazines and journals on finance have also been used as data source.

Period of Study

The study covers a period of 10 years as five years before the date of merger and five years after the date of merger including the year of merger. So it covers a period from 1995-2006

Sampling Design

The study is related to the banking industry. The merger process in banking industry started in 1950s-merger of private banks to avoid loss making by them. During late 1960's the government of India intended nationalization of banks by RBI.

In continuation of this, merger and acquisition took place in the form of public sector banks acquiring private banks/private sector bank with another private sector bank etc. After financial sector reforms in the year 1991 the banking sector especially the public sector banks were forced to improve their competitiveness. So the banks merged after the period 1991 were taken into consideration as it needs special attention to see to what extend these banks attained success in their merged process. So such banks were selected merged from 1995 onwards on the basis of the availability of data for a period of 5 years before the merger and five years from the merged period. The list of such banks is presented in Table 1.

TABLE 1 SAMPLE BANKS

Sl. No	Merging bank	Merged bank	Year
1	Kasinath Seth Bank	State Bank of India (SBI)	1995
2	Punjab Co-operative Bank	Oriental Bank of Commerce (OBC)	1997
3	Bareilly Co-operation Bank	Bank Of Baroda (BOB)	1999
4	Sikkim Bank	Union Bank of India (UBI)	1999
5	Times Bank	Housing Development Financial Corporation Bank (HDFC)	2000
6	Bank of Madura	Industrial Credit Investment Corporation of India (ICICI Bank)	2001
7	Nedungadi Bank	Punjab National Bank (PNB)	2003
8	Global Trust Bank	Axis Bank	2004
9	IDBI Bank	Industrial Development Bank of India (IDBI)	2005

Source: IBA Bulletin

FRAMEWORK OF ANALYSIS

The secondary data were collected from different sources. Statistical tools are applied to analyze different financial ratios which are grouped under 5 categories. Calculations were made to test the financial performance of the merged bank for a period of 5 years before and five years after the merged period. The statistical tools used are: Discriminat analysis.

FINANCIAL EFFICIENCY

This research explains operational performance of the merged banks with the help of 11 ratios are used. They are given below:

OPERATIONAL RATIOS

1. Ratio of Price earning ratio (X_1)
2. Ratio of price to book value per share (X_2)
3. Price to cash EPS (X_3)
4. Market capital to share capital (X_4)
5. EV / EBIDT (X_5)
6. Non performing asset to net advance (X_6)
7. Business per employee (X_7)
8. Profit per employee (X_8)
9. Return on asset (X_9)
10. Return on equity (X_{10})
11. Capital adequacy ratio (X_{11})

ANALYSIS RESULT AND DISCUSSION

PRE MERGER PERIOD

Step wise Discriminant Function Analysis is a multivariate statistical technique which allows to study the differences between two or more groups with respect to several variables simultaneously and provide a means of classifying any object/individual into the group with which it is most closely associated and to infer the relative importance of each variable used to discriminate between different groups. A linear combination of predictor variables, weighted in such a way that it will best discriminate among groups with the least error is called a linear discriminant function and is given by:

$D = L_1.X_1 + L_2.X_2 + \ldots\ldots\ldots\ldots\ldots\ldots + L_K.X_K$, where Xi 's are predictor variables, Li's represents the discriminant coefficients, and D is the value of the discriminant function of a particular individuals/element such that if this value is greater than a certain critical value D, the individual would be classified in group I ; otherwise the individual would be classified in Group II.

Classification:

In the present study, the sample banks were grouped into namely, banks which are having lower ROE (Grouped I: n1= 4) and banks which are having higher ROE (Grouped II: n2= 5) by taking into consideration whether the different mean ratios are above the ROE or below it.

Predictor variables (operational ratios) considered for the analysis during per merger period for discriminant function analysis include the following:

$X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10}$ and X_{11}

The results are presented in the table 2.

TABLE 2 MEAN OF INDEPENDENT OPERATIONAL RATIOS

Predictor Ratios	Bank with Lower ROE (X_{10}) (N_1= 4)	Bank with Higher ROE (X_{10}) (N_2=5)
	Mean	
X_1	2.101	6.716
X_2	0.516	3.367
X_3	1.754	3.794
X_4	0.178	0.492
X_5	2.526	10.481
X_6	3.605	6.986
X_7	0.516	3.776
X_8	0.016	0.024
X_9	0.471	0.638
X_{11}	0.235	0.195

Source: Compiled from Annual Reports of the Banks

Note: ROE - Return on Equity

Table 2 shows the mean of the selected ratios related to the higher ROE and during pre merger period lower ROE. The mean of X_1 pertaining to lower ROE was 2.101 and that of higher ROE was 6.716. In case of X_2 the mean for lower ROE was 0.516 and that of higher ROE was 3.367, the mean of lower ROE and higher ROE in case of X_3 were found to be 1.754 and 3.794 respectively. In respect of lower ROE, the mean of X_4 was 0.178 and that of higher ROE was 0.492. The mean of X_5 relating to lower and higher ROE were found to be 2.526 and 10.481 respectively. The mean of X_6 relating to lower ROE and higher ROE were 3.605 and 6.986. In respect of X_7 the mean of lower ROE and higher ROE were 0.516 and 3.776. The mean relating to X_8 in case of lower ROE was 0.016 and 0.024 incase higher ROE. The mean of lower and higher ROE in case of X_9 were 0.471 and 0.638 respectively.

TABLE 3 TESTS OF EQUALITY OF GROUP

MEANS UNIVARIATE ANOVAS

Ratios	Wilk's Lambda	F (DF=1, 7)	Sig
X_1	0.657	3.658	0.097
X_2	0.900	0.775	0.408
X_3	0.832	1.417	0.273
X_4	0.642	3.504	0.089
X_5	.0360	12.424*	0.010
X_6	0.884	0.920	0.369
X_7	0.702	2.973	0.128
X_8	0.965	0.252	0.631
X_9	0.935	0.529	0.490
X_{11}	0.834	0.610	0.543

Source: Compiled from Annual Reports of the Banks

X_{10} Dependent Variable

**-Significant at 1 % level *-Significant at 5 % level

CLASSIFICATION OF RATIOS BASED ON DISCRIMINANT FUNCTION

Using the discriminant function fitted and the observed predictor ratios of the bank, the bank is classified and the correct % of classification is presented below.

TABLE 4 CLASSIFICATION OF RATIOS USING DISCRIMINANT FUNCTION

ROE	Classification of Banks		Total
	Banks with Lower ROE (X_{10})	Banks with Higher ROE (X_{10})	
Banks with Lower ROE (X_{10})	**4**	0	4
Banks with Higher ROE (X_{10})	0	**5**	5

Source: Compiled from Annual Reports of the Banks

Note: ROE - Return on Equity

From the above table, it is observed that out of 4 banks who have lower ROE, all the 4 (100 %) were correctly classified; out of 5 banks who have higher ROE, all the 5 (100 %) were correctly classified. Thus, out of total 9 banks, all the 9 banks were correctly classified. Hence the percentage of correct classification is (9/9)*100 % or 100 %. The percent of correct classification of respondents using the observed data clearly indicates adequacy of the model in discriminating between the two groups.

RELATIVE IMPORTANCE OF PREDICTOR VARIABLE

The contribution of the selected ratios in discriminating the two groups and also their relative discriminating power were found using the formula:

I_j = Mod of Kj (xj1-xj2)

Ij =Importance of j^{th} variable

Kj = Unstandardised discriminant co-efficient for j^{th} variable

Xik = Mean of the j^{th} variable for the k^{th} group

Rj = Ij / Sum of Ij where Rj is the relative importance of j^{th} ratios. The calculated values are given in the following table.

The relative importances of each predictor ratios in discriminating between the two groups are obtained and the results are presented below.

TABLE 5 THE RELATIVE IMPORTANCE OF RATIOS IN DISCRIMINATING BETWEEN THE GROUPS

Predictor Ratio	Importance value of the ratios (Ij)	Relative Importance (Rj)	Rank
X_4	7.2867	29.9	2
X_5	16.1248	66.2	1
X_9	0.9631	3.95	3
Total	24.3746	100	

Source: Compiled from Annual Reports of the Banks

CANONICAL DISRIMINANT FUNCTION FITTED:

$D = - 9.147 -23.206\ X_4 + 2.027\ X_5 + 5.767X_9$

Test Functions

Eigen value: 30.336

Percentage of variation explained: 100

Wilks Lambda = 0.032

Chi-square = 18.946; DF = 3; p = 0.000

Canonical Correlation: 0 .984

Among the ratios under study, two operational ratios namely X_4, X_5 and X_9 are substantially important variables in discriminating between groups namely banks with lower ROE and with higher ROE among the banks under study.

Thus it is concluded that the discriminate faction which enabled the researcher to classify a new bank in either bank with low ROE (X_{10}) group or bank with higher ROE (X_{10}) group and identified substantially important ratios namely X_4, X_5 and X_9 in discriminating between the group namely banks with lower and higher ROE (X_{10}).

POST MERGER PERIOD

The operational ratios namely X_1, X_2……..and X_{11} during post merger were used for discriminant function analysis.

TABLE 6 MEAN OF INDEPENDENT OPERATIONAL RATIOS

Predictor Ratios	Banks with Lower ROE (N_1= 4)	Banks with Higher ROE (N_2=5)
	Mean	
X_1	10.812	10.980
X_2	1.797	1.662
X_3	9.054	9.314
X_4	1.301	1.318
X_5	8.884	15.628
X_6	4.927	2.366
X_7	3.100	6.647
X_8	0.117	0.064
X_9	0.471	0.638
X_{11}	0.213	0.324

Source: Compiled from Annual Reports of the Banks

Note: ROE - Return on Equity

Table 6 presents the mean of the selected ratios related to the lower ROE and higher ROE during post merger period. The mean relating to X_1 in case of lower ROE was 10.812 and that of higher ROE was 10.980 the mean of lower ROE and higher ROE of variable X_2 were 1.797 and 1.662 respectively. In case of X_3, the mean for lower ROE was 9.054 and that of higher ROE was 9.314. In respect of lower ROE the mean of X_4 was 1.301 and that of higher ROE was 1.318. The mean of X_5 relating to lower ROE and higher ROE were 8.884 and 15.628 respectively. The mean of X_6 relating to lower ROE was 4.927 and higher ROE was 2.366. The mean of lower ROE and higher ROE of the variable X_7 were 3.100 and 6.647 respectively. In case X_8 the mean of lower ROE was 0.117 and higher ROE was 0.064. The mean of lower and higher ROE of variable X_9 were 0.471 and 0.638 respectively.

TABLE 7 TESTS OF EQUALITY OF GROUP MEANS

UNIVARIATE ANOVAS

Ratios	Wilk's Lambda	F (DF=1, 7)	Sig
X_1	1	0.001	0.979
X_2	0.998	0.015	0.905
X_3	1	0.003	0.958
X_4	1	0.000	0.986
X_5	0.463	8.125*	0.025
X_6	0.707	2.900	0.332
X_7	0.778	1.994	0.203
X_8	0.916	0.645	0.448
X_9	0.930	0.529	0.490
X_{11}	0.828	0.425	0.478

Source: Compiled from Annual Reports of the Banks

X_{10} Dependent Variable

**-Significant at 1 % level *-Significant at 5 % level

CLASSIFICATION OF RATIOS BASED ON DISCRIMINANT FUNCTION

Using the discriminant function fitted and the observed predictor variables of the individual, the individual is classified and the correct % of classification is presented below.

TABLE 8CLASSIFICATION OF RATIOS USING DISCRIMINANT FUNCTION

ROE	Classification of Banks		Total
	Banks with Lower ROE (X_{10})	Banks with Higher ROE (X_{10})	
Banks with Lower ROE (X_{10})	**3**	1	4
Banks with Higher ROE (X_{10})	0	**5**	5

Source: Compiled from Annual Reports of the Banks

Note: ROE - Return on Equity

From the above table, it is observed that out of 4 banks who have lower ROE, 3 banks (100 %) were correctly classified; out of 5 banks who have higher ROE, all the 5 (100 %) were correctly classified. Thus, out of total 9 banks, all the 8 banks were correctly classified. Hence the percentage of correct classification is (8/9)*100 % or 88.9 %. The percent of correct classification of respondents using the observed data clearly indicates adequacy of the model in discriminating between the two groups.

RELATIVE IMPORTANCE OF PREDICTOR VARIABLE

The relative importances of each predictor ratios in discriminating between the two groups are obtained and the results are presented below.

TABLE 9 THE RELATIVE IMPORTANCE OF RATIOS IN DISCRIMINATING BETWEEN THE GROUPS

Predictor Ratio	Importance value of the ratios (Ij)	Relative Importance (Rj)	Rank
X_3	7.2867	31.1	2
X_5	16.1248	68.9	1
Total	**23.4115**	**100**	

Source: Compiled from Annual Reports of the Banks

CANONICAL DISRIMINANT FUNCTION FITTED:

$D = - 4.221 - 0.180\ X_3 +0\ .465\ X_5$

Test Functions

Eigen value: 3.028

Percentage of variation explained: 100

Wilks Lambda = 0.248

Chi-square = 8.359; DF = 2; p = 0.015

Canonical Correlation: 0.867

Among the ratios under study, two operational variables namely X_3 and X_5 are substantially important variables in discriminating between groups namely banks with lower ROE and with higher ROE among the banks under study.

Thus, it is concluded that the discriminate function which enabled the researcher to classify a new bank in either bank with lower ROE (X_{10}) group or bank with higher ROE (X_{10}) group and identified substantially important ratios namely, X_3 and X_5 in discriminating between the groups namely banks with lower and higher ROE (X_{10}).

CONCLUSION

The new economic environment of the 1990s has facilitated M&As between banks which facilitated efficient performance. But it can be concluded the improvement in terms of various parameters can be identified with supported relative information of their own. The policy makers can use the findings of the study as a base for framing policies relating to M&As in service sector and to identify the areas of improvement for better operational and performance for the banks.

The above study reveals that the lower or higher return on equity is discriminating between the groups. The discriminant analysis clearly reveals that both the pre and post merger period of this study either bank with lower return on equity or bank with higher return on equity improved its efficiency due to the following operational ratios and the key variables namely, market capital, share capital, return on asset and earning per share.

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Retail Scene in India: An Overview and Opportunities

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ABSTRACT

India's economic growth has accelerated significantly over the past two decades and so, too, has the spending power of its citizens. Real average household disposable income has roughly doubled since 1985. With rising incomes, household consumption has soared and a new Indian middle class has emerged. The Indian consumer is changing rapidly. The average consumer today is richer, younger and more aspirational in his/her needs than ever before. Consumers now value convenience and choice at par with getting value for their hard-earned money. A range of modern retailers are attempting to serve the needs of the new Indian consumer. The last few years have witnessed an explosion of organised retail formats like supermarkets and hypermarkets in an otherwise fragmented Indian retail market. The present paper is an attempt to analyse the reason and future of explosive growth in Retail sector in India

Key Words

Retailing; Peaking; Declining; Opening; Closing

1.1: Retail: The Emerging Revolution

India's GDP growth of 8 per cent in 2008-09 is the highest posted for over 18 years, reflecting the booming economy of the country. Growing in tandem with the economy is the Indian retail sector. The sector is on a high growth trajectory and is expected to grow by more than 27 per cent over the next 5 to 6 years. Retail is one of India's largest industries, contributing to about 10 per cent of the GDP and providing employment to 8 per cent of the nation's workforce. Indian retail business promises to be one of the core sectors of the Indian economy, with organised retail sector estimated to grow by 400 per cent of its current size by 2010-11.

The growth and potential of the sector is being widely acknowledged both in the domestic as well as international forums. India topped AT Kearney's Global Retail Development Index 2009 for the third consecutive year, retaining its position in the global market as the most preferred retail destination amongst emerging markets. For the fifth time, India also topped the Global Consumer Confidence Index June – 2009 conducted twice a year by The Nielsen Company. Indians were judged the world's most optimistic consumers, with large sections of the population considering "now" a good time to spend. The economics of Indian consumerism is buoyant, with India ranking as the fourth largest economy in terms of Purchasing Power Parity (PPP), next only to United States,Japan and China. India is expected to outpace Japan by the year 2010 to become world's third largest economy. With 54 per cent of the Indians aged below 25, the young Indian consumer is buying big to look good and feel good

1.2: Stages of Growth Retail market

Retail markets worldwide have been observed to progress through four stages as they evolve from an emerging to a mature market, usually over the course of 5 to 10 years (**Fig. 1.1**). These stages are defined as:

Opening: A market that is just beginning its modern retail story, in all major cities.

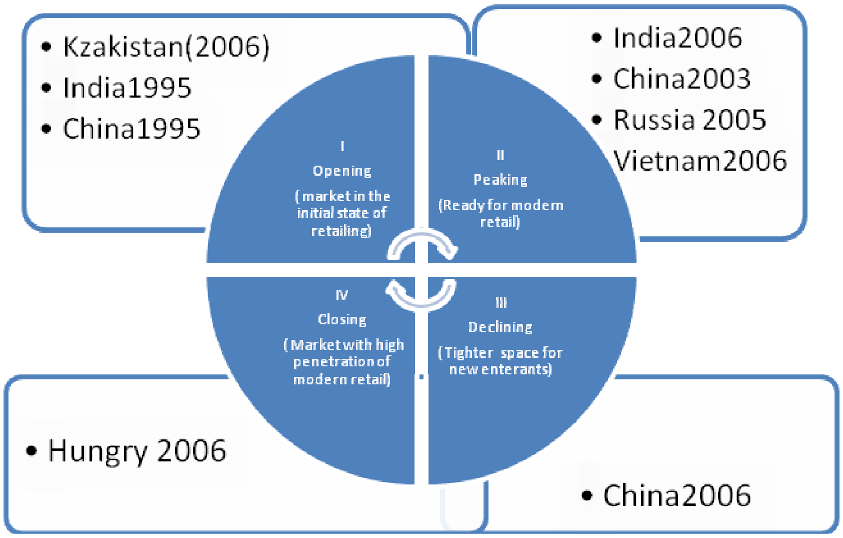
Peaking: A market that is developing quickly and is ready for modern retail.

Declining: A market that is still big and growing, but space for new entrants is getting tighter.

Closing: A market having small window of opportunity for new entrants; such markets generally have a very high penetration of modern retail.

The figure below shows that key Asian economies, viz. India and Vietnam are in the peaking phase, while China has just tipped into declining. This means that the next one to three years are the best time for foreign retailers to enter India. They cannot wait for the government to set things in order. While the government has announced some benefits for foreign retailers by allowing them to own up to 51 per cent of a single brand retail company, the relaxed regulations do not extend to retailers that sell a variety of brands. India's government seems to be on a gradual but definite path towards allowing foreign retailers into the country. And when it takes the final steps, the peak time to enter will quickly pass, giving retailers a hope that entering now they have a distinct edge. Different global retailers are in talks to identify the best mode of entry in India.

Fig: 1.1: Stages of Retail market



1.3: The Indian retail: Growth

Retailing in India is evolving rapidly, with consumer spending growing by unprecedented rates and with increasing number of global players investing in this sector. Organised retail in India is undergoing a metamorphosis and is expected to scale up to meet global standards over the next five years.

India's retail market has experienced enormous growth over the past decade, more than doubling in size to US$ 311.7 billion in 2008-09. The market was estimated at US$ 1.1 trillion (in PPP terms) in 2007-08. The most significant period of growth for the sector was between years 2000 and 2008, when the sector revenues increased by about 93.5 per cent translating to an average annual growth of 13.3 per cent. The sector's growth was partly a reflection of the impressive Indian economic growth and overall rise in income levels of consumers.The growth trajectory of Indian Retail is shown in Fig:1.2, below:

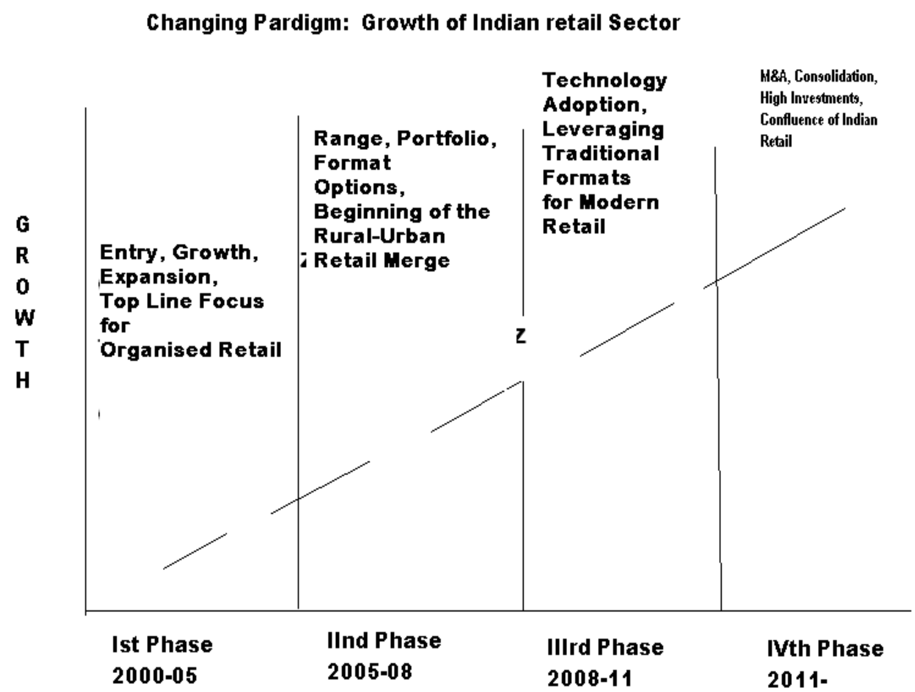


Fig. 1.2

1.4: Key Trends and Drivers of Retail growth

a) **Rapid economic growth:**

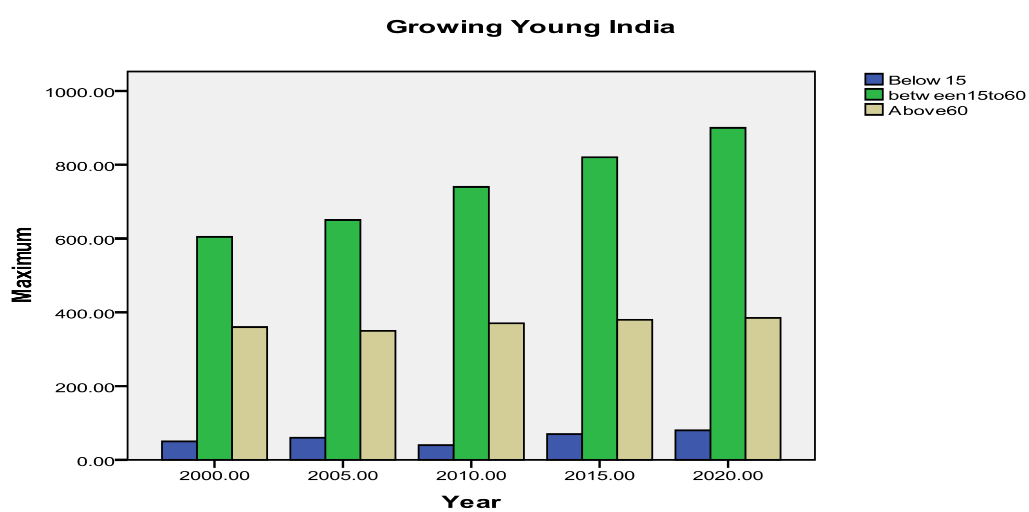
The fast and furious pace of growth of the Indian economy is the driving force for Indian consumerism; with the Indian consumers confident about their earnings and are spending a large portion of their high disposable incomes. Projections by analysts suggest that India has the potential to be labeled the fastest-growing economy and outpace the developed economies by 2050. Analysts predict India to sustain an average GDP growth rate of 5 per cent till the mid of this century, with India projected to outpace the other developed economy markets by 2050.

The average annual growth rate for 1994-2009 was pegged at 6.1 per cent, second only to China. The more recent growth rates of over 9 per cent posted for India, promise a continued robust growth story. Private consumption accounted for 62 per cent of India's GDP in 2008-09, comparable to most of the leading economies around the world.

b) The Young India

Against the backdrop of an ageing world, India possesses the advantage of having a largely young population. 35 per cent of India's population is under 14 years of age and more than 60 per cent of the population is estimated to constitute the working age group (15-60) till 2050. Two-thirds of Indian population is under 35, with the median age of 23 years, as opposed to the world median age of 33. India is home to 20 per cent of the global population under 25 years of age. This trend is projected to continue for the next decade, with the share set to reach its maximum in 2010. The large proportion of the working-age population translates to

a lucrative consumer base vis-à-vis other economies of the world, placing India on the radar as one of the most promising retail destinations of the world. The changing profile of Indian population is depicted in Fig 1.3 below;

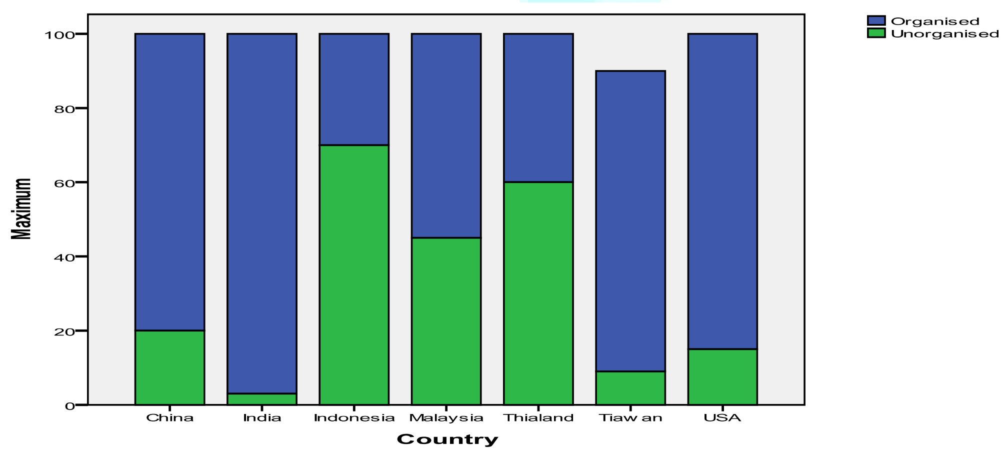


Source: Department of Industrial Policy and Promotion

c) Potential untapped market

India ranks first, ahead of Russia, in terms of emerging market potential and is deemed a "Priority 1" market for international retail. Organised retail penetration is on the rise and offers an attractive proposition for entry of new players as well as scope for expansion for existing players.

Fig:1.4: Share of Organised Sector

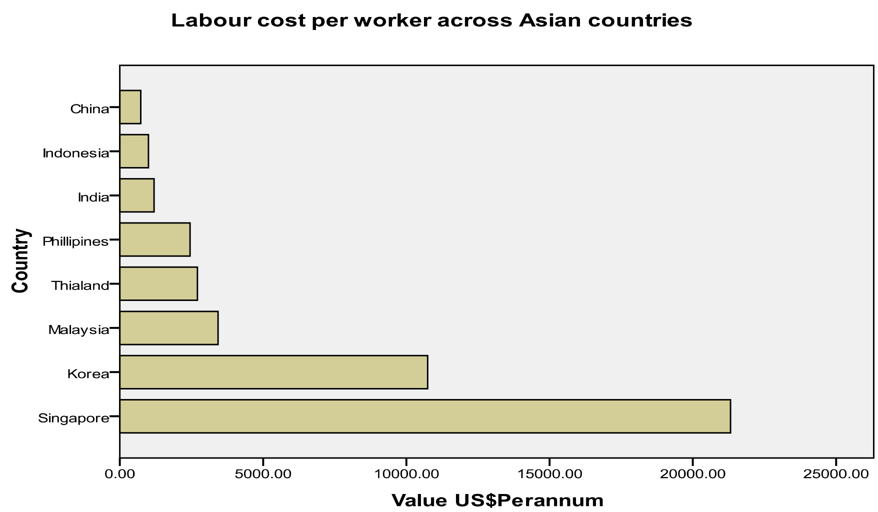


Source; Earnest & Young Retail Report (2008)

India is home to a large base of consumers with annual incomes ranging from US$ 1,000 – US$ 4,700, comprising of over 75 million households. A steadily rising percentage of rich and super rich population and impressive disposable incomes offers a spectrum of opportunities, spanning from rural retailing to luxury retailing. The impressive retail space availability and growing trend of consumerism in the emerging cities and small towns add to the market attractiveness. Pantaloon Retail India Limited, one of India's retail giants captures a mere 0.3 per cent of total market; compared to Tesco Plc, which captures 14.3per cent of England's market and Walmart which captures 20 per cent of USA's market; giving an insight into the large untapped market potential.

d) Cost Effectiveness

The most attractive component of India's value proposition is its cost attractiveness. Existing players are increasingly turning to Tier II and Tier III cities for retail establishments and for manpower sourcing. These cities offer significant cost advantage in the form of availability of low-cost skilled human resources. With well-educated small town graduates turning to the urban cities for employment, these graduates are ideal candidates for sales and marketing executive roles in modern organized retail formats.



e) Changing face of Indian Consumerism

Favorable demographics, combined with increasing disposable incomes, are progressively changing the face of Indian consumerism. With the economy opening new vistas of employment and with employers offering attractive compensation packages and perks, the pool of Indian skilled professionals are boasting of higher disposable incomes. From frugal spending to frenzied shopping, India's swelling middle class is redefining lifestyle patterns with adoption of western values and growing brand consciousness. The average household disposable income has doubled since 1985, with analysts predicting a similar trend for the next two decades.

The thriving services sector growth has handed young India a bulging wallet and a penchant for luxury products. The new found freedom to shop at plush malls and stores for expensive gadgets like mobile phones and laptops has fuelled the growth of organised retail in India.

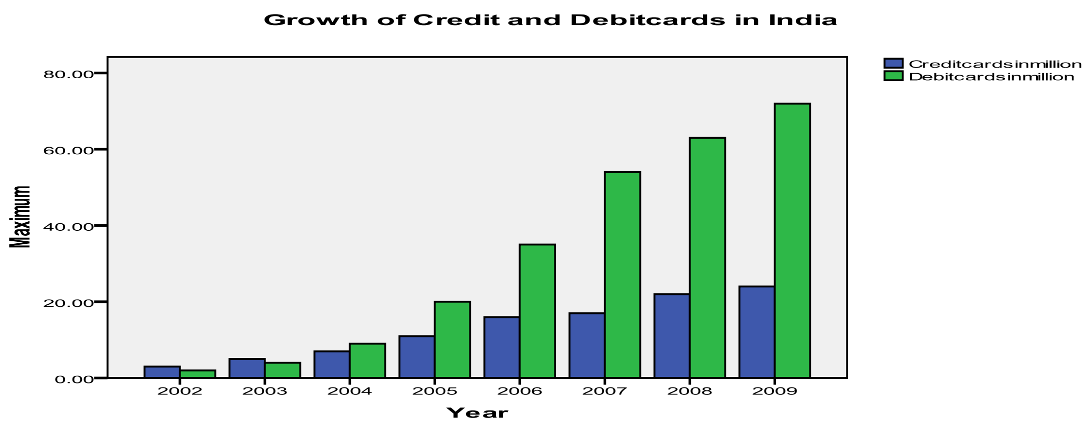
The Indian consumer is gradually moving from the local "kirana" shopping to "Mall Hopping". With a number of domestic and international brands available in stores in metros and smaller cities and with a wide range of product offerings from food and grocery to furniture and fixtures, the Indian consumer is fast embracing modern retail.With the country's income pyramid changing dramatically, there has been a definite shift from the "saving" tendency to the "spending" attitude. Increased consumer exposure to the latest trends and brands driven by the mass media is contributing to the soaring retail revenues. There has been a marked increase in the number of new entrants in the retail sector with player revenues increasing across all the retail segments.

f) Increasing urbanization

India's urban population is estimated at 286 million, constituting 27.8 per cent of the total population of 1,029 million as on 2001. The urban population is projected to increase to 468 million, constituting 33.4 per cent of the total projected population of 1,400 million by 2010. With over 34 cities having a population of over 1 million, this number is projected to grow rapidly. Urban population has grown over five times over the past five decades, with India's urban population being second largest in the world, in numerical terms, next only to China. Delhi is the most urbanised city in India, with about 93 per cent of the population concentrated in urban areas. Class I cities (cities with population greater than 1,00,000) have an average concentration of 73.7 per cent urban population, with the share increasing rapidly. An increase in the number of young employed executives and the increasing population of working women is stimulating growth of modern retailing in urban areas.

g) Easy availability of Credit

Higher penetration and availability of credit facilities and increasing credit card and debit card subscriptions have further fuelled the growth of retail sector. Most of the banks and financial institutions have increased their range and amount of retail credit and loans service offerings. The average exposure of banks to retail loans was at 25.5 per cent of total loans in 2005-06.



Source: CRISIL

Increased subscription of credit cards in the last 3-4 years indicates a definitive change in the consumer habits of the Indian population. The number of credit cards issued was at 16.6 million in 2005-06, growing at a compound annual growth rate of 28 per cent in the last 6 years. The number of debit cards have increased manifold and touched 53.7 million by 2005-06. The growing acceptance of plastic money across small and medium sized stores and retail outlets has stimulated the rapid growth in issuance of credit cards.

h) Increasing Technology adoption

With modern retail store formats growing players are increasingly deploying advanced Information Technology tools for managing their supply chain, warehousing and logistics requirements. Retail sector constituted 8 per cent of the IT export revenues in 2005-06. Apart from the industry giants, the small scale retailers are also embracing IT solutions to optimise their operational efficiencies. Big league IT firms like IBM India, Oracle and SAP are developing solutions for smaller retailers' requirements.

1.5: CONCLUSION

The retail sector has played a phenomenal role throughout the world in increasing productivity of consumer goods and services. It is also the second largest industry in US in terms of numbers of employees and establishments. There is no denying the fact that most of the developed economies are very much relying on their retail sector as a locomotive of growth. The India Retail Industry is the largest among all the industries, accounting for over 10 per cent of the country's GDP and around 8 per cent of the employment. The Retail Industry in India has come forth as one of the most dynamic and fast paced industries with several players entering the market. But all of them have not yet tasted success because of the heavy initial investments that are required to break even with other companies and compete with them. The India Retail Industry is gradually inching its way towards becoming the next boom industry

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CUSTOMER SATISFACTION AND COMPETENCIES: AN EMPIRICAL STUDY OF AMBALA, KURUKSHETRA AND YAMUANANAGAR DISTRICTS OF HARYANA, INDIA

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ABSTRACT

We empirically address how customer satisfaction and loyalty in the banking industry may affect profitability. This helps to identify the strategy and competencies necessary to benefit from customer relationships which are important sources for improved performance in the banking. We do this *by analyzing data collected on 2,105 customers of 118 branches of State Bank of India. We find that customer satisfaction impacts loyalty, which in turn has a direct effect on financial and non-financial customer value/total customer value/complex customer value. Moreover, loyalty is a mediator between financial and non-financial customer value and two sources of customer satisfaction, namely relationships with the front office and the branch, on the one hand, and the products offered, on the other.*

INTRODUCTION

Customer satisfaction results in better competencies and moreover loyalty generates positive word of mouth publicity results in increased trust among the customers. The broader emphasis, mainly in the management literature, that knowledge and learning has become ever more important as foundations of superior performance (Bartel, 2004; Bauer, 2003; Black and Lynch, 2005; Caroli and Van Reenen, 2001; Cohen and Levinthal, 1990; Cristiniet al., 2003; Foss et al., 2006; Greenan, 1996; Ichiniowski et al., 1997; Zwick, 2003). This arguably also holds for traditional industries, such as banking, which has been characterized by increasing competition both from within and outside the industry, increased transparency demands, an increased importance of information and communication technology, the growing possibility to standardize routine transactions and the explicit introduction of knowledge management (Camuffo and Costa, 1995; Keltner and Finegold, 1996; Hunter et al., 2001; Canato and Corrocher, 2004;Munari, 2000). In this paper we consider a specific way in which the new tendencies influence the organization of banking transactions, namely through a more extensive use of close customer relations. Such relationships are often seen in the recent business literature as means to build valuable capabilities (De Jong and Noteboom, 2000; Sako, 2000; Teece, 1992). Relationships can be characterized in terms of their nature (strategic alliances, vertical relationships, lateral and horizontal relationships) and their intensity (e.g., contact frequency and quantity and type of the information exchanged) (De Jong and Noteboom, 2000; Sako, 2000; Teece, 1992). They can be divided into two main groups: Relationships within a firm (Baker, Gibbons, and Murphy, 2001), and relationships with the external environment. In the latter, two types of firm-customer relationships can be found (De Jong and Noteboom, 2000; Sako, 2000; Teece, 1992), namely those that are based on arms' length contracts and relational contracts, respectively. The latter is characterized by informal arrangements sustained by the value of future relationships (Baker et al., 2002). The focus of this paper is on such relational contracts. Extant literature suggests that firms that adopt this type of contracts are characterized by customer-oriented internal policies and long-term relationships (e.g., Munari, 2000). Banking firms may develop and nurture long-term customer relations for a number of reasons. First, the relevant services may be experience goods and reputation mechanisms may not work perfectly. Close customer contacts can overcome the resulting asymmetric information problem. Second, close relationships imply that customers make relationship specific investments, to a certain extent locking them in to the relation. Third, customers may be sources of valuable ideas concerning how to improve banking products and Services. Finally, attention to customer needs and the quality of the offered services give rise to customer satisfaction and retention. In order to build potentially valuable customer relations, a customer- rather than product-centered approach is often held to be necessary, one on which the focus is on the personalized management of a certain number of accounts and not of a certain number of products (Camuffo and Costa, 1995). In turn, building a customer-centered approach requires certain internal competencies, and arguably also an internal organization that fosters knowledge sharing is necessary. Thus, customer satisfaction and loyalty are both a result and a source of competency creation.

Although theory thus suggests that long-term relationships may be causes of improved financial performance because they help to reduce costs, increase quality, improve products and services, and create long-term customer loyalty, there is a considerable lack of empirical knowledge, particularly in retail banking. Arguably, an important reason is that customer satisfaction and retention have been difficult to measure (Munari, 2000).

The present paper fills this void by analyzing customer relationships in retail banking, arguing a potential source of improved performance for banks. For a sample of 118 retail branches belonging to State Bank of India, we put forward and test hypotheses concerning the relationship among financial and non-financial customer value for the branch, customer satisfaction and customer loyalty.

OBJECTIVES OF THE STUDY

a) To know whether there is any relation among customer satisfaction, loyalty and profitability.

b) To find out the nature of this relationship (i.e., if it is a direct one or if there are multiple causal relationships; if there are mediator or moderator variables).

c) To find out the total impact of above variables on competencies of Bank.

EMPIRICAL SETTING AND DATA SOURCES

The Econometric Case Study Method

This research focuses on a single organization, namely, a State Bank of India, in which the unit of analysis is the customer.[1] In other words; we adopt the econometric case study method, a fairly recent empirical approach. In spite of what seems to be an evident problem with external validity that is associated with a single case study, the approach is by no means void of this kind of validity (cf. Jones et al., 2006; Baker et al., 2002). Moreover, unlike firm-level studies, econometric case studies, such as Hamilton et al. (2003), make use of field work to acquire a thorough understanding of a firm, are able to investigate particular issues, because of the lower aggregation level employed, and allow the use of interviews, which may provide important clues as to how to Interpret other data. Moreover, in econometric case studies qualitative analysis assumes a supportive, and often important, role (Jones, et al., 2006).

Data Sources

The econometrical analysis presented in this work is based questionnaire. The questionnaire is particularly important for this research, namely questions belonging to the "Satisfaction" section and the "Loyalty" section. Our data set includes other general information about the customers: Length of the relationship with the managers in term of number of years; annual number of transactions; number of products that the customers hold; Rating;[3] value of the products that the customer holds; and the HRI classification.[4] 2995 customers answered the questionnaire.

The second source of data includes, for each branch, the value of its fixed assets and the investments made during 2009; the interest margin and revenues from services; years in operation, number of employees, number of customers, and location.

Sample Identification

Since the CS survey was conducted on a statistically representative sample of the customer population[5], we identified the sub-group of branches for which satisfaction data was in general informative enough.

By considering all[6] relevant questionnaire variables of interest, factor analysis can be used for building a first synthetic satisfaction index for each customer. The customer satisfaction variables are categorical variables on a scale from 1 to 10 (from dissatisfied to very satisfied). For variables about products satisfaction, the average of the "logic" answers were considered, that is the answers of the customers who hold the specific product. Moreover, the loyalty variables were binary; the questions to which they are related are the following: 'Do you use other banks?'; 'Is [name of the bank] your main bank?'

Four types of products were considered: Bank accounts, investments, financing, and insurance. After consulting the marketing department, we excluded the insurance product because it seemed to be the one with the lowest impact on customer satisfaction. We then considered only the second question and totaled the corresponding answers. In this way we obtained a categorical variable on a scale from 0 to 3. Before running the factor analysis, we recoded all these variables on a scale from 1 to 4.

In accordance with established literature, we extracted the factors whose Eigen-values exceeded 1 (Kline, 1994; Hair et al., 1995; Jackson, 1991; Johnson and Wichern, 1992). In doing so, we obtained two factors. The first one included customer satisfaction with the image of the bank and relationships with the managers. The second one included customer satisfaction with first, relationships with the front-office; second, relationships with the branch; and third, the products.[7] The loyalty variable coefficient seemed too low to be taken into consideration in any factor. A confirmation of our choice to keep two factors came from the screen test. We then estimated a synthetic customer satisfaction index by totaling the factors, weighing them with the variance explained. Table 1 shows the resulting factors. Starting from these indices, we calculated the average satisfaction with each branch. It should be noted that we did not adopt a weighted mean in order to give each customer adequate importance. This was possible thanks to double stratification, which assigns the right proportion to the different types of customer in the sample. Since some branches show a very low samples number, in order to identify the sub-group of branches with average satisfaction data that were sufficiently informative, the following criterion was adopted : the confidence interval was calculated at the 95% level for the mean μ of the synthetic satisfaction index (y), with the hypothesis that this index featured an approximately normal distribution. The confidence. Interval is defined by two boundaries, $IC_{i,0.95} = (\mu_{i,INF}, \mu_{i,SUP})$, so that the probability that the real mean (calculated on all the customers of the branch) lies between the two boundaries is 95% the two boundaries are determined by the following formula: $\mu_{i,INF} = \bar{y} - 1.96\sqrt{\hat{\sigma}/n_i}$, $\mu_{i,SUP} = \bar{y} + 1.96\sqrt{\hat{\sigma}/n_i}$, Where $\hat{\sigma}$ is the standard deviation of the synthetic satisfaction index for the entire population level: $\hat{\sigma} = (n-1)^{-1}\sum_{i}^{n}(y_i - \bar{y})^2$. . the variance of the synthetic satisfaction index was assumed to be the same for all the branches.

Table 1: Identification of the sample branches: factor analysis.

Variable	1	2
cs_imm1	0.47	0.24
cs_imm2	0.42	0.25
cs_relempl2	0.04	-0.03
cs_relempl3	0.28	0.52
cs_relempl4	0.03	0.67
cs_relempl5	0.26	0.43
cs_relempl1	0.81	0.02
cs_relempl2	0.91	-0.04
cs_relempl3	0.91	-0.04
cs_relempl4	0.78	0.08
cs_relempl5	0.86	-0.01
cs_relempl6	0.84	-0.01
cs_relbranch1	0.06	0.60
cs_relbranch2	-0.04	0.69
cs_relbranch3	0.03	0.63
cs_relbranch4	-0.11	0.78
cs_relbranch5	0.14	0.61
avcs_prodr	0.38	0.38
Lay	0.01	0.05
Eigen value	0.87	1.01
Proportion	0.89	0.10
Cumulative	0.89	1.00

Factors obtained with factor analysis and varimax rotation.

Table 1a Customer Satisfaction with products : factor analysis result

Variable	1	2
Cs_ba1	0.24	-0.31
Cs_ba2	0.23	-0.25
Cs_ba3	0.22	-0.03
Cs_inv1	0.05	-0.75
Cs_inv2	0.19	-0.79
Cs_inv3	0.17	-0.84
Cs_inv4	0.10	-0.83
Cs_inv5	0.15	-0.82
Cs_fin1	0.33	0.04
Cs_fin2	0.43	-0.18
Cs_fin3	0.80	-0.10
Cs_fin4	0.87	-0.15
Cs_fin5	0.81	-0.18
Cs_fin6	0.83	-0.18
Cs_fin7	0.72	-0.08
Eigen value	5.80	2.38
Proportion	0.68	0.28
Cumulative	0.68	0.96

Rotated factors: varimax rotation.

Since $p_{97.5}(y) - p_{2.5}(y) = 9$ more precisely ,the interval of variation between the 97.5th and the 2.5th percentiles is 9,) the mean data for the branches for witch $\Delta_i = \mu_{i,SUP} - \mu_{i,INF} \leq 6$ was chosen "heuristically" as significantly informative. The 367 branches in the initial sample were reduced to 118.

MEASURES

The following section provides a description of the construction of the variables used in the model.

Rating

The rating is the dependent variable. It was built by the marketing department of the bank. It is defined as a function of: Cross-selling (the number of products that the customer holds); the value of the products that the customer has; and the Intermediation Margin, or the total revenue[8] generated by each customer for the respective branch. Thus, the rating expresses not only a financial value of the individual customers for their branch, but a complex, total value that includes the number and the value of the products they hold that can have an effect on the branch's performance. Rating varies on a scale from 1 to 8.

Loyalty Index

Loyalty expresses the extent to which the bank under study is the main bank for the customer. The corresponding question in the questionnaire is: 'Is [name of the bank] your main bank?' This question is repeated for each product. Thus, Loyalty is built as the sum of three binary variables. We recoded it on a scale from 1 to 4.

Customer Satisfaction Indices

The synthetic CS Index expresses total customer satisfaction. It includes the items of the questionnaire on customer satisfaction with relationships and products. Not all the variables are of relevance for our work. In fact, some variables concerning the bank do not show any variance among the branches, because they refer to aspects that are decided at the central level (by the banking Group). After consulting the marketing department, we have excluded these variables.[9] More precisely, relationships are divided into relationships with: The front office; the managers; and the branch, while products are divided into: bank account; financing; and investments. All the variables were categorical variables on a scale from 1 to 10 (from dissatisfied to very satisfied). The overall index is built as a mean of all the items. This was possible thanks to a Cronbach's alpha value larger than 0.6 (0.95).[10]

In addition, since the items that we consider in our analysis are divided into two main groups -- that is relationships and products -- we defined two more variables, namely CS with relations, which measures customer satisfaction with relations (Cronbach's alpha value = 0.95), and CS with products, which captures customer satisfaction with products (Cronbach's alpha value = 0.87). Specifically, CS with relationships, the focus of this study study, is the average of the responses to the items set out in Table 2.

Table 2: CS with relationship' components.

	Front Office employees
Cs_relemployee2 Cs_relemployee3 Cs_relemployee4 Cs_relemployee5	Qualification Willingness to give information and explanations Speed in attending to customers,' business recognition
	Managers
Cs_relmanager1 Cs_relmanager2 Cs_relmanager3 Cs_relmanager4 Cs_relmanager5 Cs_relmanager6	Capability to make interesting proposals Capability to meet customer's needs Capability to slove customer's feel special Capability to make the customer feel special Flexibility in the management of the customer's requests credibility
	Branch
Cs_relbranch1 Cs_relbranch2 Cs_relbranch3 Cs_relbranch4 Cs_relbranch5	Simplicity of orientation Waiting areas' look Privacy guaranteed by the dedicated consultant spaces Waiting time at the front office Waiting time to terminate a contract

Table 2A: Rating, Loyalty and Overall Customer Satisfaction Relationship with CS index build through the factor analysis.

	Model 1 (17)			model 2		
Independent Varibles	**Dep. Var. : Rating**			**Dep. Var. : Loyalty**		
	Coeff.	P>z	S.	Coff.	P>Z	S.
Branch level control variables:						
- Number of employees (size)	-0.005	0.179		-0.011	0.001	***
- Year in operation (In)	0.085	0.176		0.127	0.150	
- City/town	0.051	0.590		-0.164	0.137	
- BG	-0.043	0.627		-0.010	0.937	
Customer level control variables:						
- Year of relationship with the branch	0.032	0.000	***	0.005	0.495	
- Number of transactions	0.001	0.063	*	0.004	0.000	***
- HRI	-0.017	0.852		0.265	0.020	***
Customer Satisfaction (18)	0.006	0.131		0.032	0.000	***
Obs.	874			816		
Wald Chi2	56.92			74.18		
Prob Wald Chi2	0.000			0.000		
Pseudo R2	0.0194			0.0757		

Ordered probit estimation controlled for clusters.

*** are for p-value< 0.01; ** are for p-value< 0.05; and * is for p-value,0.1.

However, given the subject analyzed in this paper, it is interesting to investigate the existence of relationship sub-groups and their effect on CS. In order to test the existence of these correlations, we ran a factor analysis on all the items referring to CS with relationships (i.e. the items described in table 3).

Following the above mentioned criteria, we obtained only one factor. Thus, in order to identify relationship sub-groups and their effect on CS, on loyalty as well as financial and not- financial customer value, we forced the Eigen-values criterion, obtaining two factors. The first factor refers to relationships with managers while the second involves relationships with the front- office and the branch. It is worthy of note that the results are similar to those of the factor analysis that we conducted in order to identify the sample. This seems to give power to the factors we found. Table 3 shows the factor analysis output.

Table 3: Deepening Customer Satisfaction with Relationships: Factor Analysis.

Variable	1	2
cs_relempl2	0.04	0.65
cs_relempl3	0.48	0.65
cs_relempl4	0.32	0.76
cs_relempl5	0.48	0.57
cs_relempl1	0.82	0.33
cs_relempl2	0.87	0.34
cs_relempl3	0.86	0.32
cs_relempl4	0.81	0.37
cs_relempl5	0.84	0.36
cs_relempl6	0.82	0.37
cs_relbranch1	0.33	0.70
cs_relbranch2	0.22	0.74
cs_relbranch3	0.32	0.67
cs_relbranch4	0.22	0.79
cs_relbranch5	0.41	0.69
Eigen value	9.23	1.32
Proportion	0.62	0.09
Cumulative	0.62	0.70

Factors obtained with factor analysis and varimax rotation.

Table 3A: Rating, Loyalty and Customer Satisfaction with relations built through the factor analysis: relationships

Independent variables	Model3 Dep. Var. : Rating Coeff.	P>Z S.	mobel4 Dep. Var. : Rating Coff.	P>Z S.	model5 Dep. Var. : Loyalty Coeff.	P>z S.	model6 Dep. Var. : Loyalty Coeff.	P> z S.
Branch level control variables:								
-Number of employees (size)	-0.004	0.207	-0.004	0.0225	-0.009	0.002 **	-0.009	0.002**
-Years in operation (in)	0.076	0.150	0.074	0.161	0.013	0.843	0.012	0.858
-City/town	-0.039	0.633	-0.028	0.729	-0.097	0.346	-0.087	0.398
-BG	-0.090	0.198	-0.092	0.190	-0.006	0.948	-0.009	0.927
Customer level control Variables:								
-Years of relationship with The branch	0.031	0.000 ***	0.031	0.000 ***	0.013	0.024	0.013	0.017 **
-Number of transaction	0.002	0.001 ***	0.002	0.001 ***	0.005	0.000 ***	0.005	0.000 ***

-HRI	0.046	0.466		0.044	0.477		0.297	0.000 *** 0299 0.000 ***
Customer Satisfaction with Relations (19)								
Factor 1 (rel. with managers)	-0.043	0.0135				0.206	0.000 ****	
Factor2 (rel. with front office Employees and branch	0.065	0.019 **				0123	0.004 **	
Synthetic index			-0.052	0.262			0.347	0.000 ***
Obs.	1546		1546		1427		1427	
Wald Chi2	115.87		112.25		144.50		143.48	
Prob Wald Chi2	0.0000		0.019		0.071		0.067	

Ordered probit estimation controlled for clusters.

*** are for p-value<0.01; ** are for p-value< 0.05; and * is for p-value< 0.1.

The proportion's coefficients show that most of the variance is in general explained by the relationships with the managers.[11] This is also confirmed by the coefficients of the factors. Comparing the two factors, if time is a key aspect for bank account transactions, for investments or other more important transactions, customers place a much higher value on the competencies of the managers. Although the coefficients of the factors do not vary significantly from one another, it seems that for both consultants and front-office employees, actual competencies are more important that training and expected or required competencies. It should be noted that also the impacts of the variables on the factors seem to be confirmed compared to the factor analysis that we ran to identify the sample. We then obtained a synthetic customer satisfaction index by totaling the factors, weighting them with the variance explained.

Controls

Some controls have been added to the model at two levels of the analysis: The customer level and the branch level. At the customer level there are the following controls: The duration of the relationship in terms of years; the number of transactions; and the AIR/BIR classification.[12] The length of the relationship and the number of transactions through the bank account are continuous variables. HRI(High Relational Intensity) is a classification of customers on the basis of the possibility to estimate their income. In fact, the marketing department has noted that, if the customer's income can be identified, that is, if the customer credits his/her income on the bank account of the bank under study, then the customer has a high relational intensity with the respective branch ('High Relational Intensity'). It was recoded on a scale from 1 to 2: 1 if the customer has a low relational intensity with the respective branch and 2 if he/she has a high relational intensity. At the branch level there are: The number of employees; the years in operation of the branch; and the location. The number of employees is a continuous variable. For the years in operation, we used the natural logarithm. To control for the location of the branch we built two dummy variables: the first controls for the location in a city or in a town; the second controls for the location in the main province in which the Group operates. This will allow us to observe the impact that some branch level variables have on the customer level dependent variable under study. In fact, an important source of information of these data is the fact that they are at two levels: a micro level, i.e. the customer, and a macro level, i.e. the branch. Moreover, it is possible to depict the effects of the customer level controls on the customer level dependent variable and control for them. Table 4 shows some statistics for the variables.

Table 4: Mean, Standard Deviation, Minimum and Maximum Value and Correlations.

Variables	Mean	St. Dev.	Min.	Max.
- Rating	5.27	2.65	1	8
- Number of employees	17.13	15.07	3	72
- Years in operation (in)	3.71	0.88	1.79	4.91
- City/town	0.64	0.48	0	1
- Bg	0.45	0.50	0	1
- Years of relationship	10.12	7.75	0	33
- Number of transaction made By the customer	71.87	52.47	0	596
- HRI	1.61	0.49	1	2
- Total Customer Satisfaction (mean)	7.76	0.94	3.43	9.93
- CS with relations	7.88	1.24	1	10
- CS with products	7.62	0.74	2.67	9.87
- Loyalty	2.75	0.58	0	3

Table 4A: Rating, Loyalty and Customer Satisfaction with products built through the factor analysis: relationship

		a	b	c	d	e	f	g	h	I	j	k	l
		1											
a.	Rating	0.00	1										
b.	Number of employees	0.02	0.38	1									
c.	Year in operation (In)	0.02	-0.37	0.18	1								
d.	City/town	-0.01	-0.06	0.46	0.05	1							
e.	Bg	0.20	0.00	0.05	0.02	0.04	1						
f.	Years of relationship												
g.	Through the bank account	0.10	0.03	0.05	0.00	0.07	0.11	1					
h.	AIR/BIR	0.04	0.02	0.01	0.00	0.00	0.03	0.23	1				
i.	Cstot (mean)	0.05	0.01	-0.06	-0.01	-0.07	-0.01	0.02	0.00	1			
j.	Csrel (mean)	0.01	0.01	-0.03	0.00	-0.03	-0.01	0.02	0.00	096	1		
k.	Csprod (mean)	0.00	-0.02	-0.05	0.00	-0.05	-0.03	0.02	-0.01	0.91	0.76	1	
l.	Loyalty	0.12	-0.06	-0.02	0.00	0.00	0.09	0.19	0.15	0.21	0.18	0.21	1

Table 4B: Rating, Loyalty and Customer Satisfaction with products built through the factor analysis: relationship

Independent Variables Loyalty		Model 7 Dep. Var. : Rating		Model 8 Dep. Var.: Rating		Model 9 Dep. Var. : Rating		Model 10	Dep. Var. :	
P>z S.		Coeff. P>z		S.	SCoeff.	P>z	S.	Coeff. P>z S.		Coeff.
Branch level control variables:										
-Number of employees (size)	-0.002	0.585	-0.002	0.589	-0.007	0.004 **	-0.007	0.007 **		
- Years in operation (In)		0.053	0.224	0.052	0.237	0.037	0.559	0.030	0.634	
- City/ Town		0.009	0.896	0.009	0.892	-0.064	0.477	-0.061	0.513	
-BG		-0.073	0.238	-0.074	0.235	-0.000	0.997	-0.006	0.944	
Customer level control variables:										
-Years of relationship with the										
Branch	0.029	0.000 ***		0.028	0.000 ***		0.017	0.000 ***		0.016
0.001 ***										
-Number of transactions	0.002	0.000 ***		0.002	0.000 ***		0.005 0.000 ***			0.005
0.000 ***										
-HRI	0.031	0.600		0.030	0.611		0..275	0.000 ***		0.277
0.000 ***										
Customer Satisfaction about										
Products(20)										
Factor 1(fin)	-0.003	0.725			0.044	0.000 ***				
Factor2	-0.010	0.045 **		-0.025	0.001					
Synthetic index				-0.010	0.368				0.045	0.002 **
Obs.	1992		1992		1822		1822			
Wald Chi2	144.31		142.70		148.92		107.04			
Prob Wald Chi2	0.000		0.000		0.000		0.000			
Pseudo R2	0.0153		0.015		0.0618		0.047			

Ordered probit estimation controlled for clusters.

*** are for p-value 0.01; ** are for p-value<0.05; and * is for p-value<0.1.

Models

Due to the type of our dependent variable, which is a categorical variable on a scale from 1 to 8, we use for our estimation the ordered probit model. This model is defined as follows:

$$\Pr(y_{ij} \neq 0 \mid x_{ij}) = \Phi(x_{ij} b)$$

Where I is the client, j is the branch, is the inverse of the normal standard cumulative distribution, and xijb is the ordered probit score or ordered probit index. Moreover, we have controlled for the clusters. This option specifies that the observations are independent across group (clusters) but not necessarily within groups. thus, our models are the following:

$$\Pr[Rating] = \alpha + controls + \beta_1 CS + errorterms \qquad [1]$$

$$\Pr[Loyalty] = \alpha + controls + \beta_1 CS + errorterms \qquad [2.1]$$

$$\Pr[Rating] = \alpha + controls + \beta_1 Loyalty + errorterms \qquad [2.2]$$

The first model tests the existence of a direct relationship between customer satisfaction and the value of each customer for the branch he/ she belongs to. The second model includes two equations. It is used to test whether there is an indirect relationship between customer satisfaction and the value of the customer for the branch. More precisely, we test the role of customer loyalty; specifically, whether it is a mediator variable (between cs and performance) or whether there is a causal relationship among customer satisfaction, customer loyalty and financial and not-financial customer value.

Loyalty functions as mediator if it menthe following conditions(1) variations in levels of the independent variable (csi) account significantly for variations in the presumed mediator (loy) i.e path (i);(ii) variations in the mediator account significantly for variations in the dependent

Variable (rating) (i.e., path (ii)); (iii) when paths (i) are controlled, a previous significant relation between the independent and dependent variables is no longer significant, with the strongest demonstration of mediation when path (iii) is zero. When path (iii) is reduced to zero, we have strong evidence for a single, dominant mediator. Path (iii) is not zero, this indicates the operation of multiple mediating factors. From a theoretical perspective, large reduction of the significance of the dependent variable demonstrates that a given mediator is indeed potent, albeit not both a necessary and sufficient condition for an effect to occur (baron and Kenny, 1986).

Results and Discussion

We first consider the impact of overall customer satisfaction on the rating (see Model 1, Table 5).

Table 5: Rating, Loyalty and Overall Customer Satisfaction Relationship

	Model 1 [13]			Model 2			Model 3		
Independent Variables	**Dep. Var.: Rating**			**Dep. Var.: Loyalty**			**Dep. Var.: Rating**		
	Coeff.	P>z	S.	Coeff.	P>z	S.	Coeff.	P>z	S.
<u>Branch level control variables</u>									
- Number of employees (Size)	-0.05	0.172		-0.012	0.000	***	-0.0001	0.741	
- Years in operation (In)	0.086	0.169		0.135	0.120		0.020	0.633	
- City/ town	0.049	0.601		-0.174	0.113		0.031	0.649	
- BG	-0.044	0.625		-0.016	0.899		--0.058	0.384	
<u>Customer level control variables</u>:									
- Years of relationship with the Branch0	0.032	0.000	***	0.005	0.486		0.027	0.000	***
- Number of operations	0.001	0.063	*	0.004	0.000	***	0.001	0.003	**
- AIR/BIR	-0.017	0.852		0.260	0.024	**	0.001	0.003	***
<u>Customer Satisfaction[14]</u>	0.059	0.103		0.322	0.000	***			
Loyalty							**0.169**	**0.001**	***
OBS.	874			816			1920		
Wald Chi2	57.10			77.96			120.67		
Prob Wald Chi2	0.000			0.000			0.000		
Pseudo R2	0.0195			0.0778			0.0167		

Ordered probit estimation controlled for clusters.

*** are for p-value< 0.05; and * is for p-value< 0.1.

Note that in this model the number of observations is reduced substantially. In order to test the representativeness of the sub-sample, we ran a t-test on the differences between the means and the standard deviations of the two samples. Table 6 shows the results.

Table 6: The T-Test

Variable	Sample 1: 2105	Sample 2: 874		Max	t-test on mean differences	
	Mean	Mean	Std. Dev			
Number of employees (size)	17.12732	17.27231	15.37814	3	72	0.812
Years in	3.70726	3.710258	0.887366	1.791759	4.912655	0.933
operation (in)	0.453682	0.632723	0.482339	0	1	0.920
City/town	10.12257	0.464531	0.499026	0	1	0.589
BG		9.947368	7.723722	0	33	0.574
Years of	7					
relationship						
with the branch	1.86556	80.17506	56.96043	0	596	0.000***
Number of						
transaction	1.609501	1.643021	0.479383	1	2	0.086

The sub-sample seems to be representative of the original sample. However, the number of transactions made by the customers seems to bias the sub-sample.

Considering the results in Table 5, the only controls that have significant effects are the ones at the customer level. This seems to suggest that what really matters for the value of the customers for the branch, that is for their 'branch's performance', is the attention to the customer level elements. In particular, the length of the relationship and the number of bank account transactions are statistically significant. This means that the longer the relationship with the branch and the higher the probability that customers perform bank account transactions, the greater the probability that the customer becomes more profitable for the branch. Note that the length of the relationship with the branch may be taken as a proxy for relational competencies, so that the analysis shows that as these types of competency increase, so does the profitability of the customer to the branch. The first model also shows that there is no direct relation between customer satisfaction and the value of the customers for the branch. The customer satisfaction index is, in fact, not significant, so that our first hypothesis is rejected.

However, the literature and the results of the first model seem to suggest that loyalty (or trust) may be another important variable for the subject of our analysis. Since there is no direct effect between CS and performance, as we have already noted, loyalty cannot be a mediator between these two variables. As described above, this is a condition for the existence of a mediation effect. What we are going to test is, thus, the existence of a causal relationship among Customer Satisfaction, Loyalty, and Rating. The test is performed by running models [2.1] and [2.2].

The results are presented in Table 5 (models 2 and 3). Also in this case, what really matters are the elements at the customer level. This is confirmed by the significance of a long-term relationship and the number of transactions for the Rating, while HRI classification becomes significant for the loyalty, to the detriment of the length of the relationship between the customer and the branch. Thus, if the customer credits his/her income on the bank account (that is, if the customer has a high relational intensity with the respective branch), the probability that such a customer will choose it as his/her own main bank increases.

Note also that the size of the branch negatively impacts the loyalty probability. This may be taken as an indication that the bigger the firm, the more difficult it is to implement those internal arrangements that support the building of close, long-term customer relations, such as lower delegation, motivation, and attention to employees (cf. Foss, Laursen, and Pedersen, 2007). Moreover, we might argue that the experience of the branches and their location do not influence customer loyalty and their value to the branch. However, the general experience of the branch should not be conflated with the development of relational competencies, which seem to have a direct impact on the profitability of the customers, even though they are not of direct relevance to their loyalty.

Concerning the main independent variables and their significance, we can state that the presence of customer satisfaction increases the probability of customer loyalty and therefore the value of the customer for the branch. In addition, it may be noted that, due to the fact that the moderation effects are difficult to interpret in an ordered probit analysis, we have considered the overall customer satisfaction index to approximate these effects, so that these results could suggest the existence of a moderation effect between the different types of customer satisfaction. As already indicated, there are two main groups of customer satisfaction variables, that is, one that concerns CS with relationships and the other CS with products. Considering the means of these two groups, we are going to test the same preceding models. Table 7 shows the results.

Table 7 :- Rating, Loyalty and Customer Satisfaction with relations and products: relationships.

Model 4 Model 5 Model 6 Model7

Independent Variables **Dep. Var.: Rating** **Dep. Var.:** **Dep.**

Var.: **De. Var.:**

Coeff. P>Z S. **Loyalty** **Rating**

Loyalty

Coeff. P>z S. Coeff. P>z S. Coeff. P>z S.

Branch level control variables:								
- Number of employees (size)	-0.004	0.220		-0.009	0.001	***	-0.002	0.494
-0.009 0.003**								
- Years in operation (In)	0.076	0.150		0.012	0.850		0.036	0.495
0.135 0.079*								
-city/town	-0.027	0.737		-0.102	0.321		0.082	0.320
-0.130 0.213								
-BG	-0.092	0.192		-0.005	0.954		-0.052	0.510
0.057 0.613								
Customer level control variables:								
-years of relationship with the branch	0.032	0.000	***	0.012	0.033	**	0.028	0.000
***0.011 0.077 *								
-Number of operations	0.002	0.001	***	0.005	0.000	***	0.001	0.012
***0.004 0.000 ***								
-AIR/BIR		0.045	0.477		0.296	0.000	***	-0.060
0.520 0.245 0.021 **								
Customer Satisfaction with relations15	0.013	0.570		0.188	0.000	***		
Customer Satisfaction with products[16]							0.011	0.795
0.3790.000 ***								
Obs.	1546			1427		1079		1000
Wald chi2	108.72			108.18		53.42		79.94
Prob wald chi2	0.000			0.000		0.000		0.000
Pseudo R2	0.018			0.069		0.014		0.073

Ordered probit estimation controlled for clusters.

*** are for p-value< 0.01; ** are for p-value<0.05; and * is for p-value<0.1.

The control variables confirm the preceding insights: what really matters is the customer level. A difference should be noted: all three customer level controls have a significant impact on loyalty. Thus, the relationship between customer satisfaction and loyalty, on one side, and their value for the branch, on the other, seems to emerge stronger than before. A longer relationship and a higher relational intensity, thus developing relational competencies, increases the number of transactions made through the bank account, due to a deeper feeling of trust by the customer, and profitability for the branch in the process. Another difference with the preceding models is the significant impact of the years in operation of the branch on the loyalty of the customer when we include in the model customer satisfaction with the products. This could be explained as follows: more experience makes the branch offer more interesting products to the customers who, thus, become more loyal. It is also confirmed the negative effect of the size on customer loyalty.

Considering the variables about customer satisfaction, all have a significant impact on loyalty. The causal effect between customer satisfaction and loyalty, on one side, and customer value, on the other, is confirmed. Customer satisfaction increases the probability that the customer chooses the bank as his/her own main bank and, in doing so, increases both his/her financial and non-financial value. Concerning the customer satisfaction variables built with the factor analysis we obtain the same results by running the same mode, This also holds for the single factors that compose customer satisfaction with relationships and the products. It is not our intention to show here the results, but what seems to be of interest is that for two types of customer satisfaction variables, the loyalty variable is a mediator. Specifically, there is: a direct relationship between (i) the second factor of customer satisfaction with relationships that is cs with the relations with front office and the branch and (ii) rating. In addition, this of type of cs impacts also loyalty. All the conditions are satisfied for the existence of the mediation effect. The same happens for cs with the bank account and the investment products. This suggests us test whether loyalty could be a statistically significant mediator of customer satisfaction with rating. In order to that we run the following models:

$$Rating = \alpha + controls + \beta factor2 + \gamma Loy + \mu + \varepsilon$$
$$Loy = \alpha + controls + \beta factor2 + \mu + \varepsilon$$

And

$$Rating = \alpha + controls + \beta csproduct + \gamma Loy + \mu + \varepsilon$$
$$Loy = \alpha + controls + \beta csproduct + \mu + \varepsilon$$

And calculate the product of the p-values of β and γ for each pair of equations. It is less than 0.0253, so the null hypothesis that $\beta^{*}\gamma=0$ is rejected and loyalty is a mediator (Kenny, 2006)[16]

DISCUSSIONS AND SUGGESTIONS

Much recent literature has argued that long-term relationships have the potential of bringing numerous benefits, such as reduced costs, long-term customer loyalty, useful knowledge that assist product innovation, etc. thus improving the performance of the firm. However, especially in retail banking, there is considerable lack of empirical evidence due to the fact that customer satisfaction and retention are difficult to measure (Munari, 2000). The contribution of this work is to provide an empirical analysis of customer relationships inside retail banking, suggesting that they are potential vehicles of learning and therefore a potential source of improved financial performance.

We have tested this by exploring first whether there is a relationship between customer satisfaction and loyalty, on one side, and profitability of the customers for the branch, on the other, and then we have examined the nature of this relationship. The results show that there is not a direct relationship between customer satisfaction and financial and not-financial customer value for the branch. Considering that, there cannot be a mediation effect between these two variables. Thus, there is a causal relationship. More precisely, customer satisfaction directly impacts customer loyalty, which has a direct effect on the profitability of customers for the branch. However, the loyalty variable becomes a mediator in the case of customer satisfaction with relationships with the front office and the branch and in the case of customer satisfaction with the products. Thus, it is arguable that, on the one hand, loyalty is determined in part by customer satisfaction, which impacts the profitability of the customers. On the other hand, it is important to distinguish between the different types of customer satisfaction. There are, in fact, different relations between the different types of customer satisfaction and financial and not-financial customer value for the branch. Some of them could be stronger and have a much greater impact on the branch's performance. Thus, managers should care about the loyalty of their customers but also about their satisfaction, in particular certain types of customer satisfaction. Thanks to the structure of the data, made on two levels of analysis, the branch level, that is the macro level, and the customer level, that is the micro level, we were also able to examine the existence and the nature of micro-macro relationships.

It is not all and not always that the branch level variables affect customer level variables, like rating or loyalty. Still, it can be argued that the larger the branch, the smaller the probability that customers choose it as their own main bank. This suggests that large banking firms may have difficulties structuring their organization to build relationships with customers. Instead, small branches make delegation and employee empowerment more feasible, so that a more customer oriented strategy can be implemented. Long-term, intensive and trusting relations with customers and, consequently, the development of relational competencies increase the profitability of the customers for the branch. Trust-based relations also increase the loyalty of the customers when we consider separately the two types of customer satisfaction. Consequently, in order to increase the profitability of the customers for the branch, what really matters is the way the employees of the branch relate themselves to customers.

Some limitations of our study could be the source of future in-depth examinations. For example, in this study we used rating as a performance variable, a function not only of the financial value of the customer but also of the number of products and the value of these for the branch. A suggestion for future researchers could be to consider the financial value of the customer per se as a dependent variable, that is his/her total revenue creation for the branch. The moderation effects between the different types of customer satisfaction might also be further explored.

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[1]In addition, some relationships between the branch level and the customer level will be considered.

[2] The retail customers of a bank include individuals and small businesses.

[3]The rating measures the profitability of customers for the branch, not only in terms of total revenue but also in terms

of the number and value of the products they hold.

[4]HRI(High Relational Intensity) is a classification of customers on the basis of their income and age.

[5] The Customer Population is retail banking customers including individuals and small businessmen.·

[6] In order to build this first synthetic index, we also considered the variables chosen inside the loyalty section of

the

questionnaire and all the satisfaction variables (except the one about communication). As indicated in the paper, we will use for our models another index with only some customer satisfaction variables about relationships.

7 Product Means financial products

8 This is a measure of the financial performance of the branch at the customer level.

9 In doing so, we obtained a total of 47 variables: 2 about customer satisfaction with the image of the bank; 5 about customer satisfaction with relationships with front-office employees; 6 about customer satisfaction with relationships with the managers; 5 about customer satisfaction with relationships with the branch; 1 about customer satisfaction with communications between the branch and the customer; 1 about customer satisfaction with relationships in general; 19 about customer satisfaction with products; 1 about customer satisfaction with the bank in general; and 7 about customer loyalty. Then, we considered the two main groups of variable available: one about CS with relations; and one referring to CS with the products. We did not consider the first variable concerning relationships with front-office employees due to correlation problems.

10 Thanks to the Cronbach's alpha value we were also able to build an index with the factor analysis. We obtained the same results in our estimation. Here, we are going to describe only the analysis run with the mean due to space problems. The results obtained with the factor analysis indices are shown in the Appendix.

11 This is probably a consequence of the forcing in running the factor analysis.

12 We should not use the number of transactions and the number of products together (their correlation is about 0.5165);

and with rating as a dependent variable, we have not used the number of transactions as a control, because rating is built as a function of this last variable.

13 As explained, the sub-sample in models 1 and 2 seems to be not biased and representative of the 2105 Customer belonging t the original sample

14 This Customer Satisfaction index is the mean of the item about customer satisfaction with relations and products.

15 this Customer Satisfaction index is a mean of the entire item about CS with relations.

[16] this Customer Satisfaction index is a mean of all the items about CS with products.

17 As explained, the sub-sample in models I and 2 seems to be not biased and representative of the 2105 customers belonging to the original sample.

[18] This Customer Satisfaction index is built with the factor analysis.

19.This Customer Satisfaction index is built with the factor analysis.

20 This Customer Satisfaction index is built with the factor analysis

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