ISSN 0973-3167

SCMS JOURNAL OF INDIAN MANAGEMENT

Volume IX, Number I
January - March 2012

Embedded in
Cabell's Directory, EBSCO, & ProQuest

Story of an entrepreneur who built up a set of high quality academic institutions in a totally hostile and challenging environment. A model for entrepreneurship in any situation.

By Prof.N.C.George

Price ₹895/-

Copies can be had from the Publication Department, SCMS Group of Educational Institutions, Cochin-683106

Contents

January - March 2012, Vol. IX, Issue No. I

Articles

Skimming & Scanning

Overview

Small and medium enterprises (SME) sector occupies a position of strategic importance in the growth of Indian economy. It accounts for around 45 percent of industrial output and nearly 40 percent of exports. The contribution of this segment towards GDP in 2011 was 17 percent. In regard to employment generation, the sector is the second largest in the country, second only to the agriculture sector.

At a closer look, it can be seen that a SME generates more jobs per unit of capital investment than a large enterprise. Over and above creating jobs, it also provides a training ground for nurturing entrepreneurship and management skill among people and thereby serving as a mechanism for local capacity building.

However, the sector is subjected to intense competition as a result of the accelerated process of globalisation and liberalisation. Many units are struggling hard to survive, unable to reap the benefits of globalisation, consequent on the onslaught of cheaper imports and increasing cost of production.

Enhancing competitiveness of SMEs is, therefore, a matter of serious concern for the nation. A research paper on Matching Compensation Strategies for Enhancing Competitiveness of SMEs, is brought to you in this context as the lead article in this issue.

We are witnessing dramatic benefits arising from the opening up of our telecom sector and the entry of private players. The Indian telecommunications network has grown to become the third largest in the world and the Indian market has become the fastest growing in the world. Prices of telecom services have fallen down drastically and the consumer has become the ultimate beneficiary.

The second lead article is a research paper on the impact of liberalization in the telecom sector in our country.

Subsequent articles deal with a variety of topics like achieving innovation and success, financial risk, changing jobs, multiple performance measures, corporate restructuring, CRM environment and so on.

Dr. G. P. C. NAYAR
Chairman, SCMS Group of Educational Institutions.

SCMS Journal of Indian Management

A Quarterly Publication of

SCMS-COCHIN

Editorial

Business and Ontology

Ontology is the subject of study in philosophy that is concerned with the nature of existence. Where does business exist? The word ***Business*** generates proliferation of ideas: Steel business, cotton business, import business, export business, textile business, and ever so many kinds of businesses. Where does it exist? How does it exist?

Ontology is the science of what ***is***. It is the science of the kinds and structures of objects, properties, events, processes and relations in every area of reality. Sometimes 'ontology' is used in a broader sense. It refers to the study of what *might* exist. The term 'ontology' (or *ontologia*) was coined in 1613, independently, by two philosophers, Rudolf Göckel (Goclenius), in his *Lexicon philosophicum* and Jacob Lorhard (Lorhardus), in his *Theatrumphilosophicum*. Its first occurrence in English as recorded by the OED appears in Bailey's dictionary of 1721, which defines ontology as 'an Account of being in the Abstract.'

'Ontology seeks to provide a definitive and exhaustive classification of entities in all spheres of being. The classification should be definitive in the sense that it can serve as an answer to such questions as: What classes of entities are needed for a complete description and explanation of all the goings-on in the universe? Or: What classes of entities are needed to give an account of what makes true all truths? It should be exhaustive in the sense that all types of entities should be included in the classification, including also the types of relations by which entities are tied together to form larger wholes.

Ontological questioning has not been scrupulously raised and discussed in the study of business. This has resulted in oversimplified thinking in the attempts at expanding the horizons in the realm of knowledge. Experience was given precedence over knowledge. Craze for expansion and proliferation of business became the highest priority. Profit-making and mutual competitiveness were the motivation and drive for business empire building. Ultimate business values were consumed in stress on utility. It is in this context that the following initiative has been noted.

The principle of ontology has lured the attention of experts in the sphere of Business. **The Business Management Ontology (BMO)** represents an integrated information model. It helps to better align IT with business. It brings together business process design, project management, requirements management, and business performance management (in the form of balanced scorecards). As such, it forms the basis for an integrated, vendor-neutral, Business Management Knowledge Base. It is from this Base various artifacts can be generated. Business analysts will be the primary users of the BMO. IT experts will also use it to establish mappings to software-related definitions, such as business objects and Web service descriptions. This is a welcome gesture.

Dr. D. Radhakrishnan Nair

Matching Compensation Strategies: Enhancing Competitiveness

Pankaj M. Madhani

Abstract

Over the last few decades there has been a tremendous growth in small and medium enterprises (SMEs). SMEs account for a major share of registered factories, employment, production and gross value added in Indian industry. However, more and more SMEs are now struggling to survive due to immense pressure created by globalization of world economy. The SMEs tend to be especially vulnerable to contextual changes. This paper focuses on enhancing competitiveness of SMEs through better HRM practice in general and compensation management strategy in particular. The paper aims to analyze differences between subsequent stages in the life cycle of SMEs and accordingly provide matching compensation strategy for enhancing competitive advantages.

Key words:

SMEs, HRM, Organizational Life Cycle, Business Risk, Compensation Strategy.

Pankaj M. Madhani, Associate Professor, ICFAI Business School (IBS), IBS House, Near GNFC Tower, S.G. Road, Bodakdev, Ahmedabad - 380054, E- mail: pankaj.madhani@gmail.com

Over the last few decades there has been a tremendous growth in small and medium enterprises (SMEs). SMEs have come to play a mounting role in growth of developing nations. A number of countries have witnessed successful SME-led economic growth and development. The growth-oriented SMEs, notably in the leading economies of Asia-Pacific viz., India, Japan, Singapore, South Korea and Taiwan have come to be identified as the driving force behind the economic growth. As SMEs contribute significantly to developing nations' gross domestic product (GDP) and provide employment to a large number of people, it is necessary to encourage their survival and growth. The failure of SMEs could lead to a situation of lower GDP of a nation, higher unemployment rate and consequent social tensions. More and more SMEs are now struggling to survive due to immense pressure created both by globalization of world economy and competition from giant multinational firms (Mulhern and Stewart, 2003). The SMEs tend to be especially vulnerable to contextual changes. The SMEs have to face the tough competition in a liberalized environment and have to produce quality goods at competitive price. This paper focuses on

enhancing competitiveness of SMEs through better human resource management (HRM) practice in general and compensation management strategy in particular. The paper aims to analyze differences between subsequent stages in the life cycle of SMEs and accordingly provide matching compensation strategy for enhancing competitive advantages.

Indian SMEs: Major Features

The concept of SME itself is quite problematic. According to Storey (1994), there is no single, uniformly acceptable, definition of a small firm as there are differences as to size, shape and capital employed. Most nations define the small scale units in terms of employment levels, capital investment or turnover. However, in India, the small scale industries (SSIs) are defined in terms of investment limits in plant and machinery. The definitions of SSI focusing on such investment criterion have undergone changes from time to time. The SSI owes its definition to Industries (Development and Regulation) Act, 1951 (IDRA). In India, until recently there has been no formal concept of medium enterprises (MEs). However, the term SSI is well known; this is different from the SME sector in other countries. The definition of the terms "small" and "medium" enterprise in India is investment specific, while in the rest of the world it reflects a combination of factors including terms of employment, assets or sales or combination of these factors. As small units pass through next stage of life cycle i.e. growth stage from start-up stage as explained earlier, they experience tremendous growth. Hence, over the years, this transition witnesses the process of graduation of several SSI units into MEs. Therefore, the report on working group on flow of credit to SSI sector appointed by the Reserve Bank of India (RBI) in 2003-04 (Dr. A. S. Ganguly Committee Report) recommends the creation of a separate category based on the adoption of turnover as a measure for defining the SME sector. Based on turn over, tiny, small and medium enterprises may be redefined as given in Table 1.

Table 1: Recommendation of Ganguly Committee Report

Size of Unit	Annual Turnover
Tiny	Up to financial limit of ₹ 20 million
SSI	Between ₹ 20 million and 100 million
Medium	Between ₹ 100 million and ₹ 500 million

In India, until recently there has been no formal concept of SME or medium enterprises (as Ganguly Committee Report was not accepted). The Government of India (GOI) introduced the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006, which came into force w.e.f. 02/10/2006, defines the micro, small, and medium enterprises. As per the Act, the activities are classified into manufacturing and service category. Initially the MSMED Act, 2006 had not given the definition of "Services sector" and RBI's guidelines were awaited. However, subsequently RBI has defined the services sector and the activities that can be covered under MSMED (Services) Sector. Hence, the MSMED Act, 2006 provides the first ever legal framework for recognition of the concept of 'Enterprises' (comprising both manufacturing and service) and integrating three tiers of these enterprises viz., micro, small and medium-sized. The definition given by the Act is given in Table 2.

One may, however, combine the definitions of small and medium enterprises to derive a concept of SME. This would mean that an SME in the Indian context is an enterprise in which the investment in plant and machinery is between ₹ 2.5 million and ₹100 million. The definition of SME, based on capital investment, puts restriction on the units for graduating it from micro, tiny and SSI to medium-scale due to facilities/incentives available to them by the government. The GOI had a policy of providing assistance of different types to SSIs through various state agencies. Recognizing the importance of SMEs in the industrial development of the country, the Government has initiated a range of programmes in diverse areas, viz., financing, technology, innovation, market information, technical training and developmental assistance. These initiatives are important in facilitating the growth of the SMEs. But it will be the competitiveness of individual units and internal dynamics of industries that will give a thrust to the emergence of SMEs.

Table 2: Definition of SMEs in India

Nature of the Enterprise	Micro Enterprise	Small Enterprise	Medium Enterprise
Manufacturing Sector	Investment in initial fixed assets (plant and machinery, which excludes land and building) does not exceed ₹ 2.5 million	Investment in initial fixed assets (plant and machinery, which excludes land & building) more than ₹ 2.5 million but does not exceed ₹ 50 million	Investment in initial fixed assets (plant and machinery, which excludes land and building) more than ₹ 50 million but does not exceed ₹ 100 million
Service Sector	Investment in equipment does not exceed ₹ 1.0 million	Investment in equipment is more than ₹ 1.0 million but does not exceed ₹ 20 million	Investment in equipment more than ₹ 20 million but does not exceed ₹ 50 million

(Source: Tabulated by author)

SMEs: Growth Engine of Indian Economy

Worldwide, the small and medium enterprises (SMEs) have been accepted as the engine of economic growth and for promoting equitable development. The major advantage of the sector is its employment potential at low capital cost. It is estimated that approximately 80 percent of the world's population live in emerging economies (EEs). Furthermore, a 2004 survey of OECD countries revealed that SMEs accounted for over 90 percent of total number of enterprises in EEs. According to a report of Citigroup and Economist Intelligence Unit (EIU), SMEs in EEs are becoming more competitive and increasingly crucial for economic growth (Newberry, 2006). The report, based on a survey of 670 Asian organizations, revealed that almost one-half of the SME entrepreneurs expect to grow significantly in the future. In general, a SME generates more jobs per unit of capital investment than a large enterprise. A SME has many other benefits: it can be started with relatively less capital; it facilitates nurturing of entrepreneurship, which could emerge from within; it can be used as an instrument for alleviating regional disparities in development etc. Further, a SME is flexible in production, has the potential to be a training ground for managerial skills and promotes individual initiatives.

SMEs account for a major share of registered factories, employment, production and gross value added in Indian industry. The total employment in SMEs in India is higher than that in the organized sector. The labour intensity of the SME sector is much higher than that of the large enterprises. The SMEs constitute over 90 percent of total enterprises in most of the economies and are credited with generating the highest rates of employment growth and account for a major share of industrial production and exports. In India too, the SMEs play a pivotal role in the overall industrial economy of the country. In recent years the SME sector has consistently registered higher growth rate compared to the overall industrial sector. The traditional small scale industries have been in focus since independence. The medium enterprises are recent entrants, and part of government's policy focus lately. The small and medium scale enterprise is a manifestation of India's socio-economic development model and has already contributed immensely in terms of contribution to GDP, industrial base, employment and exports. This segment forms a major part of India's industrial base. The booming Indian economy, friendlier regulations by GOI and increased entrepreneurship have contributed to increased growth of SMEs in India. SMEs play a crucial role in the growth of Indian economy as shown in Table 3.

Table 3 shows growth pattern of Indian SSIs (Number of units, fixed capital investment, employment growth and export). Since the term "medium" enterprise in India is a recent one,

Table 3: Growth of SSI: Indian Scenario

Year	No. of Units (in Millions)	Fixed Investment (in Billions Rupees)	Employment (in Millions)	Export (in Billions Rupees)
1990-91	6.787	9,35.55	15.83	96.64
1995-96	8.284	1,257.50	19.79	364.70
2000-01	10.110	1,473.48	23.91	697.97
2001-02	10.521	1,543.49	24.91	712.44
2002-03	10.949	1,625.33	26.01	860.13
2003-04	11.395	1,767.26	27.13	976.44
2004-05	11.859	1,786.99	28.26	1,244.17
2005-06	12.342	1,881.13	29.49	NA

(Source: Economic Survey of India, 2005-06)

hence, the data available is only for SSI units. The small industries have contributed over 39 percent of the gross industrial value added to the Indian economy. About 34 percent of the total manufactured exports of the India are directly accounted for by the SSI sector. In terms of employment generated, this sector is next only to the agriculture sector. The total exports' contribution by SMEs has grown from ₹ 138 billion in 1991-92 to ₹ 976 billion in 2003-04. The total output contributed by SSIs has gone up from ₹ 1787 billion in 1991-92 to ₹ 4187 billion in 2004-05. The total employment in them has gone up from 13 million in 1991-92 to 28.3 million in 2004-05. This data is just about the SSIs as information on the medium-scale industry is not officially documented separately due to problems of clear identification of the concept of medium enterprise. This statistics signifies impact of SSIs in view of the peculiar socio-economic realities in India.

The SSI sector acts as an engine for fuelling the growth of employment in the economy. During 1987-88 to 1993-94, the overall growth rate of employment in the economy was 2.43 percent, while the growth of employment in the SSI sector was close to four percent. During the period from 1993-94 to 1999-00, the overall employment growth rate was 0.98 percent while the employment in SSI sector grew at close to four percent per annum (Source: Ministry of Commerce and Industries, GOI). SME's contribution towards Indian GDP is expected to increase to 22 percent by 2012. As Indian economy is growing rapidly, it provides ample opportunities to Indian entrepreneurs in various industries like manufacturing, precision engineering, auto ancillary, food processing, pharmaceutical, textile and garments, retail, IT and ITES, agro and service sector, to launch SMEs in these lucrative sectors.

HRM Practices in SMEs: Major Issues

Main problems of small enterprises related to HRM are attracting talent, motivating employees and retaining key employees as small enterprises lack resources to advertise for positions, pay salaries in the range of large organizations and train employees (Singh and Vohra, 2005). It seems to be the case that SMEs have had the view, that HRM is unresponsive or not tailored to their needs, and it is considered too costly an activity to carry for a SME. SMEs are generally started by a single entrepreneur or a small group of people, and are often managed by owner – managers (Ritchie, 1993). Their organization structure is mostly flat. SMEs do not have many layers (mainly due to small number of both employees/ supervisors and specializations) because the owner is mostly at the helm of affairs. Nevertheless, it adds to their flexibility (Scott, Roberts, Holroyd, and Sawbridge, 1989).

The level of formalization of HRM increases with employee strength and was found to be higher for medium enterprises than small enterprises (Singh and Vohra, 2009). SMEs have to undergo some change in their policies and structure when they compete with international firms as global business environment

puts considerable pressure on SMEs to control both their costs and quality and meet the stringent quality requirements economically. This is a serious challenge for SMEs, especially for those operating in developing countries with labour-intensive technologies, where labour cost is a major concern (e.g., Stewart and Beaver, 2003). Hence, to control human resources (HR) cost many of them resort to questionable HRM practices, such as employment of child labour to reduce labour costs and violation of labour standards including denial of minimum wage, and other minimum-work conditions (Saini and Budhwar, 2008).

More than other business and technology issues, people issues are more likely to be taken for granted by SMEs as people management is not a technical matter for SMEs necessitating specialists (Matlay, 1999). SMEs are known to focus more on the operational aspects and neglect people-management issues. While small entrepreneurs do imbibe technological advancements in their operations, they do not recognize the critical role of effective HR policies and strategies for their success. Owners of SMEs do not normally adopt state-of-the-art people management practices. SMEs do not feel like revamping existing organizational structure, especially when they know that the status quo is delivering the output. Owner's of SMEs believe that being informal and without structured processes will help them minimize cost and provide the necessary in-built flexibility in their operations (Scott et al., 1989). Hence, they stick to informal and loose structures in their operations of SMEs, maintain status quo and remain where they are. Management of SMEs through certain indigenous ways becomes a usual way of carrying the business in their day-to-day working.

At present, firms are acknowledging the efficient management of human resources as a critical factor in their success or failure (Huselid, Jackson, and Schuler, 1997; Paauwe, 2004; Schuler and Jackson, 1999). However, the existing literature shows a strong deficiency of systematic HRM research in SMEs. The situation in the Indian context is far bad; the research in this field is almost barren. The increasing attention of researchers on HRM in SMEs is a comparatively recent phenomenon. HR researchers have largely ignored the SMEs, even though smaller firms could be fruitful subjects for qualitative and empirical investigation because their numbers, the growth-rates and management practices. Research studies have shown that smaller, medium size and newly started business units do not have any formal HR policies and the proprietors/owners of the units directly deal all HR matters and found that there were significant differences between larger and smaller organizations with respect to HR systems and practices (Srimannaryana, 2007).

Structure of an organization can be a precursor to determine both HR systems and practices and behavioural outcomes of employees. Size of the organization is one of the most important components in the organizational structure. Past studies have reported that larger organizations are more attractive to employees, because they provide many benefits (Brown, Hamilton, Medoff, 1990). Organizational size and job rewards are said to be strongly related (Evans and Leighton, 1988). Large organizations provide higher wages and fringe benefits, in order to elicit sufficient applicants to job openings (Mellow, 1982). According to Kalleberg and Van Buren (1996), the reason why employees of larger organization differ with smaller organizations, in terms of their earnings, fringe benefits, promotion avenues and autonomy could be due to product market characteristics, labour market characteristics, relations between the organization and its institutional environment, structure of the organization, unionization, job characteristics and quality of the labour force.

Researchers consider HRM to be a phenomenon related to large organizations (e.g., ISED, 2005; Wilkinson, 1999) and at the same time workers in SMEs have been described as 'the invisible workforce' (Curran, 1986). In reality, working in SMEs does not involve much paper work, policies, procedures, systems, rules, regulations and strategies, and even the presence of a HR manager is missing. Naturally then HR issues are not considered to be critical for growth and survival of SMEs. Goffee and Scase (1995) mentioned that a major constraint limiting small business growth is the process of mutual adjustment between proprietors and their employees. They identified the most common causes of crises in small firms as: weak general management; poor financial controls as well as high cost of overhead structure; among others. By effective compensation strategy, issues of poor financial controls and high overhead cost can be managed properly as explained below in subsequent sections.

The Organizational Life Cycle (OLC): Basic Concept

The organizations, like all living organisms, have a well defined life cycle and undergo very predictable and repetitive patterns of behaviour as they grow and develop (Adizes, 1979). Like people and plants, organizations have a life cycle and may go from youth to old age in two or three decades, or it may last for centuries (Gardener, 1965). Organizations move from one stage to another, because the fit between the organization and its environment is so inadequate that either the organization's efficiency and/or effectiveness is seriously impaired or its survival is threatened if it does not change (Baird and Meshoulam, 1988). As large number of strategically significant environmental and organizational variables affects organization performance, opportunities and threats in the external and internal environment of an organization vary considerably with life cycle stages (Anderson and Zeithaml, 1984). Organizations are likely to have different needs, in different stages of the OLC.

The OLC depicts that the process of organizational growth and development goes through a few regular stages (Gupta and Chin, 1994). Borrowing a universally accepted concept of life cycle analogy from the biological sciences, management researchers have developed various models to depict the life cycle of organizations (Lodahl and Mitchell, 1980). It is proposed that organizations, like civilizations, are born, grow, and eventually face stage of either decline or realign (Toynbee, 1957). There are a great number of multi-stage organizational life cycle models that focus on a diverse array of characteristics to describe organizational development (Granlund and Taipaleenmaki, 2005) and vary widely in a number of ways, including features and the actual number of stages (Jawahar and McLaughlin, 2001). The OLC stages vary per model depending on how the researcher defines an actual stage.

Hence, many models of OLC have been proposed, each of which emphasizes different factors to explain the changing characteristics of organizations over time. Some researchers proposed three-stage models (*Lippitt and Schmidt*, 1967) while other management researchers believed there should be four (Lyden, 1975), five (Greiner, 1972), nine (Torbert, 1974), or ten stages (Adizes, 2004). Whether the model is three or ten stages, most researchers are trying to describe a similar pattern of growth and development. Larger models tend to break down general stages into much more specific time periods, while shorter models tend to over generalize, incorporating two or more developmental periods in an effort to present a more straightforward depiction of organizational life (Lester and Parnell, 2005). Different organizational researchers stressed a unique set of characteristics and challenges found in each stage of their OLC models. While some researchers question validity of the OLC concept by stating that biological analogies contribute little to the theory of growth and development of organizations (Penrose, 1952), its applicability has been confirmed by various empirical research (Smith *et al.,* 1985).

From this literature review, it can be concluded that, whereas views on life cycle of organizations differ among authors, some form of OLC is distinguishable. There is a consistent pattern of development in organizations over time, and organizational activities and structures at one stage are not the same as those at another. The concept of OLC can also be extended to SMEs as they also undergo similar pattern in their life cycle. This paper's contribution to the literature lies in its synthesis of compensation framework for SMEs during different stages of OLC.

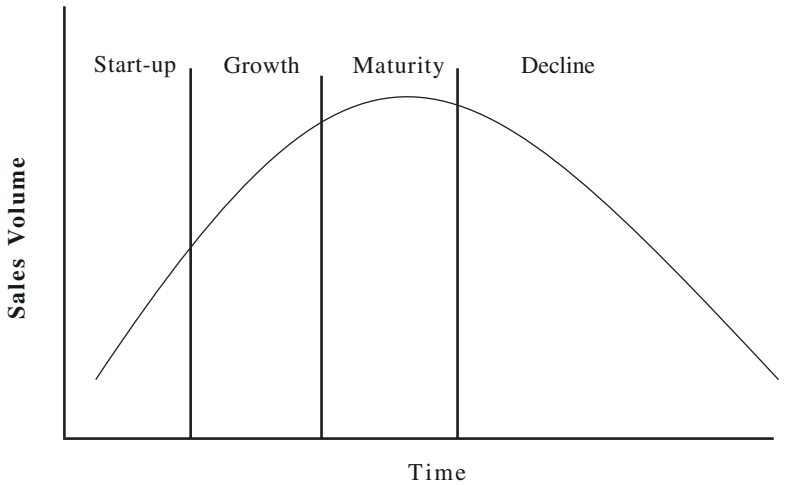
SMEs: Different Stages of OLC

The life cycle concept can also be extended specifically to SMEs as they also undergo similar pattern in their life cycle. Churchill and Lewis (1983), proposed OLC framework for small businesses and different stages elaborated are existence, survival, success, take-off and resource maturity. After the inception of SME, the starting phase is the first stage. This is followed by growth and maturity stages and the last development stage is decline. There are four key stages of the OLC, start-up, growth, maturity, and decline (Kimberly and Miles, 1980); the latter may transfer into revival. The typical OLC of an enterprise is shown in Figure 1 and its main stages are described:

Start-up Stage

The first stage of OLC, start-up, or inception stage occurs when an organization begins its operation from a few products. Start-up stage also known as birth stage, shows small and young, organization trying to establish a niche for them and is typically with little or no formal structure. In the start-up stage, organizations will have trouble finding and selecting adequate and suitable employees because prospective employees do not

Figure 1: Typical OLC



(Source: Chart developed by author)

view the organization as viable or legitimate (Williamson, 2000). The firm in this stage is still small, short of capital, does not have extensive cash reserves, and is therefore vulnerable to financial shocks (Marshall and Heffes, 2004).

Growth Stage

The second stage of life cycle known as growth stage is characterized by rapidly growing organizations, expanding their niche in the market. Large new investment is likely in this period. During this stage, the organization is growing in products, customers, sales volumes, geographic contact and in the number of employees giving rise to a hierarchical structure and functional specialization. In this stage, the organizational size and complexity increase obviously, so an organization needs multifaceted, versatile, and high performance employees (Chen and Hsieh, 2005), to face a more competitive environment.

Maturity Stage

The maturity stage is the relatively flat period of life cycle that follows the rapid growth period. As organizations mature, they focus more on defending their existing product niches. In this stage, organizations emphasize retaining customers, serving existing segments, and increasing the efficiency and effectiveness of the workforce. In the maturity stage, the environment becomes more stable and predictable in comparison with the growth stage.

Decline Stage

Although, the maturity stage can be extended through proper management action, internal and external factors or both may force the organization at any time to enter the decline stage (Whetten, 1980). During this stage organization begins to stagnate as markets dry up and product demand decrease. The decline stage of the OLC is characterized by a decrease in organization's resource base. In this stage, organizations are experiencing reductions in market share, reduced product demand and even financial losses, due to variety of reasons such as ineffective management practices, change in market environment or stiff competition etc.

Research Methodology

The concept of the OLC has developed to explain changes taking place in an organization over time. Different development stages of life cycle require different approaches. Proceeding from a theoretical perspective, Hillidge (1990) identified different strategies for the different stages of a specific enterprise. Dodge and Robbins (1992) emphasized that the major problems faced by small businesses differed according to the stage of their OLC. When organizations think of motivating employees, they think of ways to reward their performance through an appropriate compensation strategy. The stage in the life cycle is likely to be a key determinant of

compensation strategies and their effectiveness in achieving organizational goals (Balkin *et al.,* 1987). Compensation comprises two core elements - fixed pay and variable pay, as explained below (Madhani, 2009):

1. Fixed pay is fixed in nature and does not vary according to performance or results achieved. Fixed pay compensation is usually determined by the organization's overall pay philosophy and compensation structure.

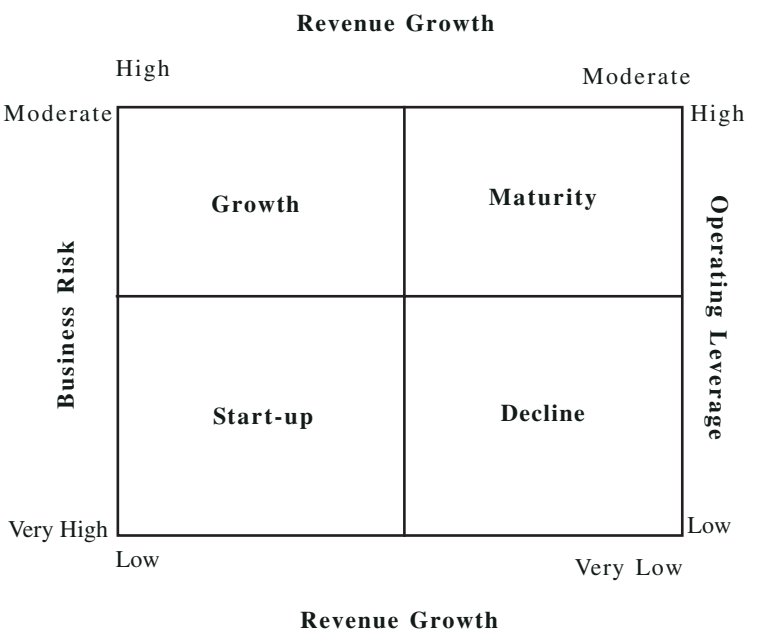
2. Variable pay**,** also known as pay at risk, changes directly with the level of performance or results achieved. Variable compensation is a one-time earning that must be reestablished and re-earned in each performance period.

Ratio of fixed pay to variable pay (pay mix) in compensation structure of employees is influenced by level of business risk, revenue growth and operating leverage of an enterprise as explained below by a research framework.

Business Risk, Revenue Growth and Operating Leverage during OLC

Business risk is defined as the risk inherent in the organization, independent of the way it is financed (Van Horne, J. C., and Wachowicz, J. M. 2008). Business risk is a central determinant of an organization's value in terms of the present value of the risk-adjusted future profit. It is affected by various parameters such as price, variable costs, operating costs and the stability of demand (Halil, and Hodgin, 2003). A business risk can be the result of internal conditions as well as some external factors. Internal conditions such as higher operating fixed costs affect an organization's value by increasing the variability of returns. When it comes to external factors that can create an element of business risk, one of the most predominant risks is that of a change in demand for the goods and services offered by the organization (Madhani, 2010a). The relationship of business risk, revenue growth and operating leverage during different stages of OLC is explained in a framework of Figure 2.

Figure 2. Business Risk, Revenue Growth and Operating Leverage during OLC



(Source: Framework developed by author)

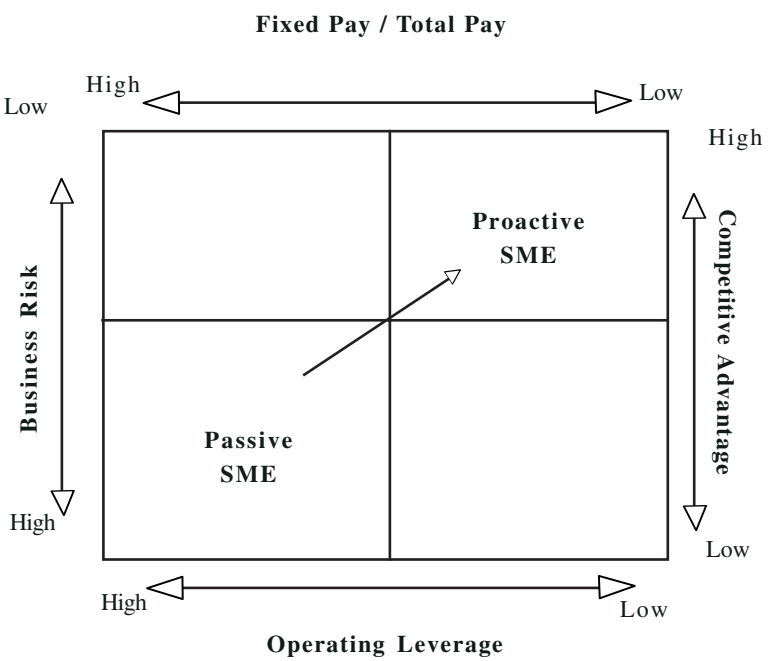
Revenue growth will be low during start-up stage of OLC while it will be very low or even negative for decline stage of OLC. Similarly, revenue growth will be high during growth stage while it will be moderate or flat during maturity stage. Operating leverage is the extent to which fixed costs are used in a firm's operations. Operating leverage is a measure of risk and opportunity. The operating leverage is a function of organization's cost structure, and defines the relationship between fixed costs and total costs. Relationship of business risk, operating leverage and competitive advantages during OLC is explained below with help of a framework.

Significance of Operating Leverage and its Impact on Firm Performance

Business risk is the uncertainty associated with organization's operating environment and reflected in the variations of operating income and hence, having a negative impact on the profitability of a given organization. Business risk is greatly influenced by the amount of fixed costs used in a firm's operation. Generally, the greater the reliance on fixed costs, the lower the variable costs and vice versa. Fixed cost of the organization increases when only base salary is used in compensation structure. However, when a portion of employee salary is tied to firm performance, employee costs will be lower when firm has less ability to pay and higher when ability to pay is higher (Gerhart and Milkovich, 1990). Hence, when a group of employees is paid under a variable, rather than fixed compensation system, strategy of maintaining employment stability in the firm should be a less risky proposition (Gerhart and Trevor, 1996).

The DOL is directly proportional to a firm's level of business risk, and therefore it serves as a proxy for business risk. Hence, as shown in a framework of Figure 3, *proactive* SME will employ strategy of reducing operating leverage when business risk is high especially during start-up stage or decline stage of OLC. However, *passive* SME do not change their operating leverage and pay mix by restructuring fixed and variable pay hence; they continue to misalign operating leverage with OLC. *Passive* SME continue to give higher level of pay and higher proportion of fixed pay in pay mix even after revenue of SME declines. Hence, *passive* SME have high operating leverage during start-up

Figure 3: Relationship of Business Risk and Operating Leverage during OLC (Start-up and Decline States)



(Source: Framework developed by author)

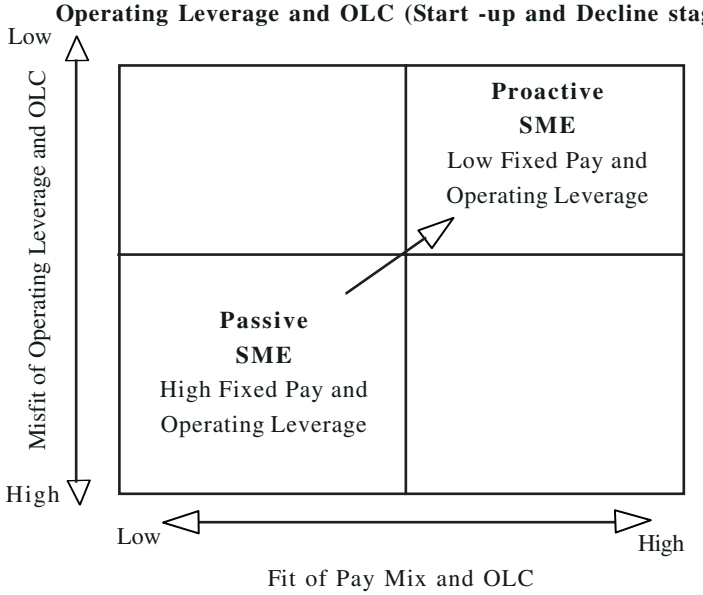
as well as decline stages of OLC. As life cycle of business necessitates a rapid response, *proactive* SME restructure their cost structure by reducing fixed cost and increasing variable cost. By this way, *proactive* SME reduce operating leverage and business risk and hence, enhance competitive advantage. *Passive* SME fails to recognize the changing dynamics of OLC and its impact on SMEs, hence continue to lose value to more nimble, *proactive* SME.

Hence, when employees of an enterprise are paid under a variable, rather than fixed, compensation system, it provides better fit between pay mix and OLC. As variable pay reduces operating leverage, it also reduces misfit between operating leverage and OLC. This is shown in a framework of Figure 4.

Enhancing Competitiveness of SMEs through Effective Compensation Management: An Illustration

One of the learning from anthropology study is that all organisms must evolve through time and adapt to their environment. Accordingly, organizations also must obey this physical law. If organizations adapt to changing circumstances, they are likely to be more successful (Duncan and Flamholtz, 1982). The organization must adjust its overall systems to fit

Figure 4: Relationship between Fit of Pay Mix and OLC and Misfit of Operating Leverage and OLC (Start -up and Decline stages)



(Source: Framework developed by author)

with the changed external and internal environment. When an organization experiences a change in the environment, it will adjust its strategy and structure to fit with the new environment. Accordingly, compensation systems should in turn be adjusted to support the changed strategy and structure of the organization (Gerhart and Milkovich, 1992). Compensation strategy of organization is influenced by level of operating leverage and of business risk present during different stages of OLC (Madhani, 2010b). There is evidence to show that the form of compensation changes to fit the OLC stages (Balkin and Montemayor, 2000). Thus, OLC can provide some key insights to SMEs to foresee when organizations are most likely to change compensation plan. Impact of operating leverage and business risk on various stages of OLC and subsequent response of organizations in terms of compensation strategy is explained below.

Start-up and Decline Stages of SMEs

During start-up stage of OLC, business risk is very high and SMEs will face many external uncertainties such as the inability of an enterprise to predict future events, the volatility in an unfamiliar market, for example, the product demand, the strategies of competitor, etc. During decline stage, the business risk is becoming high and the central focus of the organization becomes survival rather than earnings. To minimize increased

business risk during start-up and decline stages, SMEs must reduce commitment to fixed pay and maximize the use of variable pay. With low fixed cost, operating leverage will also be low. Low operating leverage means less variability of operating income during change in revenue. Hence, during start-up and decline stages of OLC, low operating leverage is preferred.

Growth and Maturity Stages of SMEs

In growth stage of OLC, operating income is increasing, while business risk is moderating. Organizations in maturity stage of life cycle are more likely to be operating in more stable environments where product market becomes established and business risk reduces further. During growth and maturity stages of OLC, enterprise prefers a high degree of base pay; hence, typically they have high operating leverage. High operating leverage results in more operating income from each additional unit if they do not have to increase proportional employee costs to make more units.

An Illustration

The impact of operating leverage and business risk on various stages of OLC is best demonstrated with hypothetical illustrations of *proactive* as well as *passive* organizations. During start-up stage of OLC, *proactive* SME takes proactive actions to change cost structure from fixed to variable pay. As explained above, *proactive* firm can improve its financial performance by reducing its operating leverage and BEP. Similarly, during a decline stage of OLC, a *proactive* firm with a lower DOL, due to higher emphasis on variable compensation will produce profitability estimates that are more consistent with actual results and will in turn benefit from more consistent and predictable financial returns. This will result into decreased market risk. Decrease in market risk of the firm, will also decrease cost of capital. Restructuring of fixed and variable pay in compensation structure offers SMEs enough flexibility to deal with market variability.

Table 4 and Table 5, show detailed calculation for operating leverage and BEP for *passive* as well as *proactive* SME respectively.

As shown in Table 4, *passive* SME do not do anything in start-up stage or decline stage of OLC to lower fixed cost or reduce fixed pay in compensation structure hence, it results in higher operating leverage during OLC. Also, BEP of *passive* SME is higher. BEP chart for *passive* SME during start-up and decline stage of OLC, based on calculation of Table 4, is shown in Figure 4(a) and Figure 4(b) respectively.

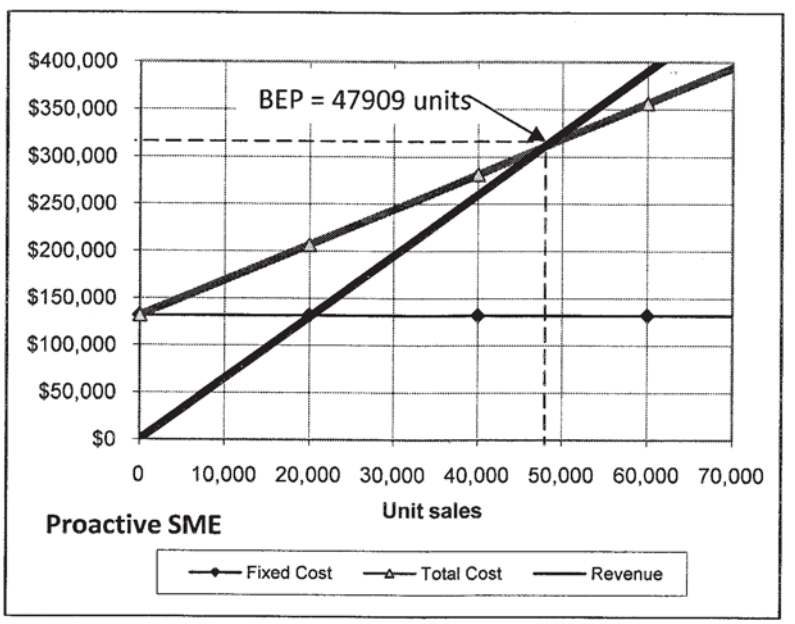
Table 4: Re-aligning Fixed and Variable Pay of a Passive SME

Sl. No.	Calculation for Passive SME	Organizational Life Cycle Stages for a SME			
		Start-up	Growth	Maturity	Decline
(1)	Sales forecast (units)	75000	94500	97402	75000
(2)	Change in sales (units)		26%	3%	-23%
(3)	Unit Selling Price	$6.50	$6.50	$6.50	$6.50
(4)	Unit variable cost	$3.75	$3.75	$3.75	$3.75
(5)	Incentives (Variable pay) rate	0%	0%	0%	0%
(6)	Variable pay	$0	$0	$0	$0
(7)	Fixed pay	$43,250	$45,570	$45,325	$42,250
(8)	Total pay = (6) + (7)	$43,250	$45,570	$45,325	$42,250
(9)	Fixed pay / total pay = (7) / (8)	100%	100%	100%	100%
(10)	Variable pay/unit = (6) / (1)	0.00	0.00	0.00	0.00

(11)	Total variable cost/unit = (4) + (10)	$3.75	$3.75	$3.75	$3.75
(12)	Variable pay / total pay = (6) / (8)	0%	0%	0%	0%
(13)	Unit contribution margin = (3) - (11)	$2.75	$2.75	$2.75	$2.75
(14)	Contribution margin =(1) * (13)	$2,06,250	$2,59,875	$2,67,856	$2,06,249
(15)	Overhead cost	$88,500	$1,42,000	$1,35,000	$84,000
(16)	Total fixed cost = (7) + (15)	$1,31,750	$1,87,570	$1,80,325	$1,26,250
(17)	Sales revenue= (1)*(3)	$4,87,500	$6,14,250	$6,33,114	$4,87,497
(18)	Fixed cost / sales revenue = (16) / (17)	27%	31%	28%	26%
(19)	Total variable cost = (1) * (11)	$2,81,250	$3,54,375	$3,65,258	$2,81,249
(20)	Total cost = (16) + (19)	$4,13,000	$5,41,945	$5,45,583	$4,07,499
(21)	EBIT (Earnings before interest and taxes) = (17) - (20)	$74,500	$72,305	$87,531	$79,999
(22)	BEP (Break Even Point) (units) = (16) / (13)	47,909	68,207	65,573	45,909
(23)	Operating leverage =(14) / (21)	2.77	3.59	3.06	2.58
(24)	Decline in profitability due to 20% decrease in sales (%) =0.2 x (23)	55.4	71.8	61.2	51.6
(25)	Cost of Capital	High	High	High	High

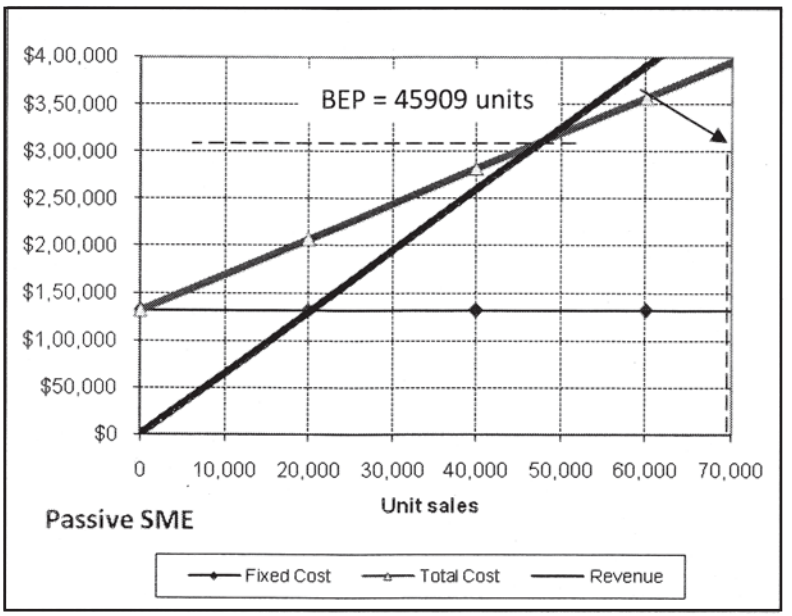
(Source: Calculated by Author)

Figure 4 (a): BEP Chart for Passive SME – Start-up Stage



Source: Chart developed by author based on calculation of Table 4)

Figure 4 (b): BEP Chart for Passive SME - Decline Stage



(Source: Chart developed by author based on calculation of Table 4)

As calculated in the illustration of Table 5, the shift from fixed pay to variable pay results in an increase in variable costs, a decrease in fixed costs, along with a decrease in BEP and DOL. A low DOL signals the existence of a low portion of fixed costs. Hence, *proactive* SME has a lower BEP, a lower DOL, lower market risk, lower cost of capital and its profits vary less with changes in sales volume (Table 5). Table 5 shows a hypothetical illustration of a *proactive* SME that realigns the fixed and variable pay of the employees according to the different stages of the OLC.

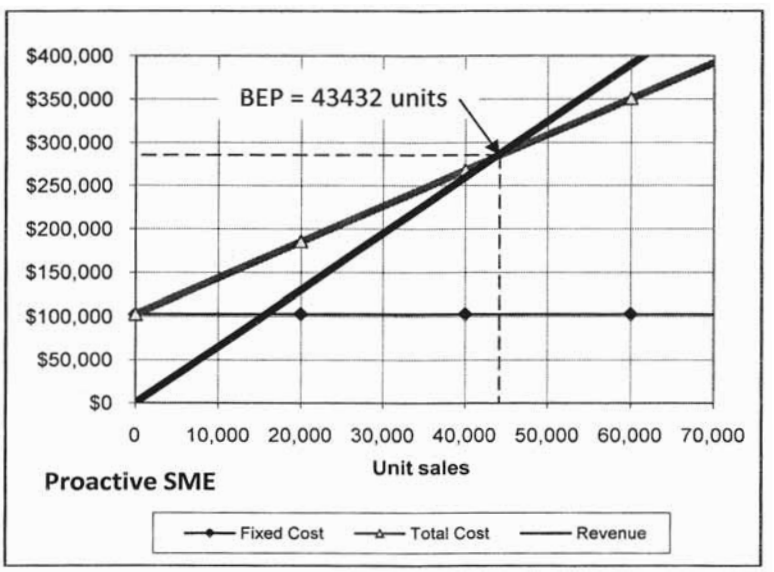
Table 5: Re-aligning Fixed and Variable Pay of a Proactive SME

Sl. No.	Calculation for Proactive SME	Organizational Life Cycle Stages for a SME			
		Start-up	Growth	Maturity	Decline
(1)	Sales forecast (units)	75,000	94,500	97,402	75,000
(2)	Change in sales (units)		26%	3%	-23%
(3)	Unit Selling Price	$6.50	$6.50	$6.50	$6.50
(4)	Unit variable cost	$3.75	$3.75	$3.75	$3.75
(5)	Incentives (Variable pay) rate	6%	4%	4%	6%
(6)	Variable pay	$29,250	$24,570	$25,325	$29,250
(7)	Fixed pay	$14,000	$21,000	$20,000	$13,000
(8)	Total pay = (6) + (7)	$43,250	$45,570	$45,325	$42,250
(9)	Fixed pay / total pay = (7) / (8)	32%	46%	44%	31%

(10)	Variable pay/unit = (6) / (1)	0.39	0.26	0.26	0.39
(11)	Total variable cost/unit = (4) + (10)	$4.14	$4.01	$4.01	$4.14
(12)	Variable pay / total pay = (6) / (8)	68%	54%	56%	69%
(13)	Unit contribution margin = (3) - (11)	$2.36	$2.49	$2.49	$2.36
(14)	Contribution margin =(1) * (13)	$1,77,000	$2,35,305	$2,42,531	$1,76,999
(15)	Overhead cost	$88,500	$1,42,000	$1,35,000	$84,000
(16)	Total fixed cost = (7) + (15)	$1,02,500	$1,63,000	$1,55,000	$97,000
(17)	Sales revenue= (1)*(3)	$4,87,500	$6,14,250	$6,33,114	$4,87,497
(18)	Fixed cost / sales revenue = (16) / (17)	21%	27%	24%	20%
(19)	Total variable cost = (1) * (11)	$3,10,500	$3,78,945	$3,90,582	$3,10,498
(20)	Total cost = (16) + (19)	$4,13,000	$5,41,945	$5,45,582	$4,07,498
(21)	EBIT (Earnings before interest and taxes) = (17) - (20)	$74,500	$72,305	$87,531	$79,999
(22)	BEP (Break Even Point) (units) = (16) / (13)	43,432	65,462	62,249	41,102
(23)	Operating leverage = (14) / (21)	2.38	3.25	2.77	2.21
(24)	Decline in profitability due to 20% decrease in sales (%) = 0.2 x (23)	47.6	65	55.4	44.2
(25)	Cost of Capital	Low	Low	Low	Low

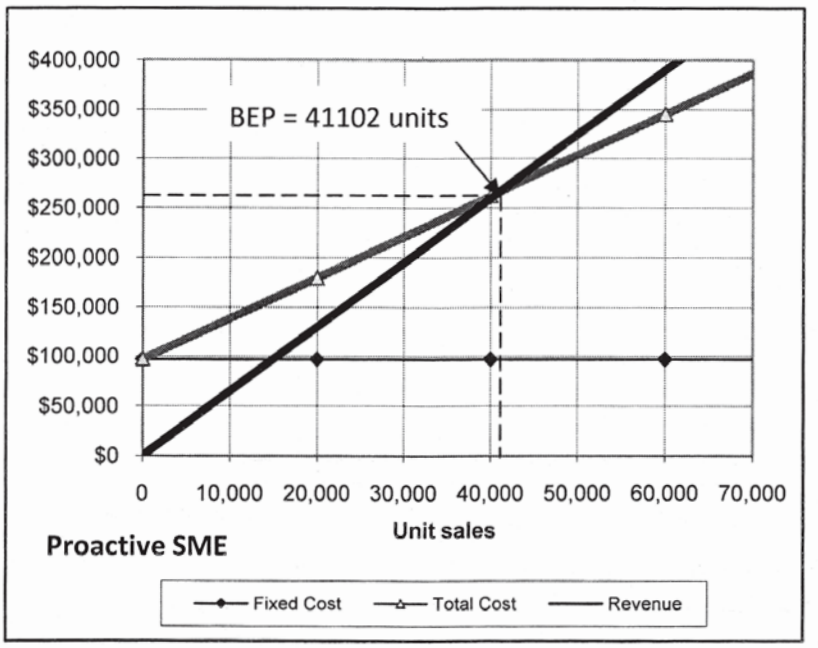
(Source: Calculated by Author)

Figure 5 (a): BEP Chart for Proactive SME - Start-up Stage



(Source: Chart developed by author based on calculation of Table 5)

Figure 5 (b): BEP Chart for Proactive SME - Decline Stage



(Source: Chart developed by author based on calculation of Table 5)

Decrease of fixed pay in pay structure also decreases BEP for *proactive* SME. BEP chart for *proactive* SME during start-up and decline stage of OLC, based on calculation of Table 5, is shown in Figure 5(a) and Figure 5(b) respectively.

Managerial Implications and Analysis

SMEs are the growth engine of Indian economy, hence it is necessary for, them to make optimum utilization of the resources, both human and economic, to achieve long term success and competitive advantages. Indian SMEs need to reduce overall cost of products to remain competitive with Chinese manufacturers and exporters. Apart from other functional areas such as production, finance, marketing, inventory and logistics, SMEs also need to focus on implementing best HR practices. As SMEs focus more on running the business on a day-to-day basis, they find less time to manage the HR processes which is perceived as non priority. Compensation strategy plays an important role in not only recruiting and retaining employees in SMEs but also increasing employee satisfaction, rewarding and encouraging best performers and reducing turnover and ultimately enhancing employee loyalty. SMEs should monitor compensation cost to remain competitive in this era of globalization and stiff competition. By proactively adjusting compensation strategy according stages of OLC, HR manager can enhance competitiveness of SMEs.

This paper gives an explanation of OLC, its impact on organization performance. Organizations must review and update their compensation strategy, according to OLC. Rebalancing fixed and variable pay in compensation structure according to different stages of OLC will help SMEs in designing optimal compensation strategy. During different stages OLC, sales revenue and business risk of SMEs change considerably. The OLC is an integral part of SMEs and therefore coping with it effectively is also a part of the strategy for gaining competitive advantages. In this paper a theory of the type of compensation system that is appropriate for SMEs during different stages of its life cycle is developed along with its usefulness for SMEs. The primary objective of this paper is to propose a framework for selecting appropriate compensation plan for SMEs according to different stages of OLC. This research identifies different stages of OLC for SMEs and also explains characteristics of different stages. This research can help SMEs to formulate and implement their

compensation strategies more effectively, take anticipatory action, and pursue an optimal balance between fixed and variable pay in compensation structure for gaining competitive advantages.

References

Adizes, I. "Managing Corporate Lifecycles: How to get to and stay at the top." *Santa Barbara*. CA: The Adizes Institute Publishing, 2004.

Adizes, I. "Organizational Passages: Diagnosing and Treating Life Cycle Problems in Organizations." *Organizational Dynamics*. 8(1), (1979): 3-24.

Anderson, C. R., and C.P. Zeithaml. Stage of Product Life Cycle, Business Strategy, and Business Performance. *Academy of Management Journal*. 27(1), (1984): 5-24.

Baird, L. and I. Meshoulam. "Managing Two Fits of Strategic Human Resource Management." *Academy of Management Review*. 13(1), (1988): 116-128.

Balkin, D. B. and L. R. Gómez-Mejía. "Toward a Contingency Theory of Compensation Strategy." *Strategic Management Journal*. 8, (1987): 169-182.

Balkin, D.B. and E.F. Montemayor. "Explaining Team-Based Pay: A Contingency Perspective Based on the Organizational Life Cycle, Team Design, and Organizational Learning Literatures." *Human Resource Management Review*. 10(3), (2000): 249-269.

Brown, C., J. Hamilton, and J. Medoff. *Employers Large and Small*. Cambridge, MA: Harvard University Press, 1990.

Chen, H.M., and Y.H. Hsieh. Incentive Reward with Organizational Life Cycle from Competitive Advantage Viewpoint. *Human Systems Management*. 24, (2005): 155-163.

Churchill, G. A. Jr., N.M. Ford, and O. C. Jr. Walker. "Personal Characteristics of Sales people and the Attractiveness of Alternative Rewards." *Journal of Business Research*. 7(6), (1979): 25-50.

Churchill, N. and V. L. Lewis. "The Five Stages of Small Business Growth." *Harvard Business Review*. 61(3), (1983): 30-50.

Curran, J. *Bolton 15 years on: A review and analysis of small business research in Britain 1971–1986*. London: Small Business Research Trust, 1986.

Dodge, H. R. and J. E. Robbins. "An Empirical Investigation of the Organizational Life Cycle Model for Small Business Development and Survival." *Journal of Small Business Management*. 30(1), (1992): 27-37.

Duncan, C.E. and E. G. Flamholtz. "Making the Transition from Entrepreneurship to a Professionally Managed Firm. *Management Review*. 71(1), (1982): 57-62.

Evans, D.S. and L.S. Leighton. "Why do smaller firms pay less?" *The Journal of Human Resources*. 24, (1988): 299-318.

Gardener J.W. "How to prevent organizational dry rot." *Harper's Magazine*. October, 20, 1965.

Gerhart, B. and G.T. Milkovich, "Employee compensation: Research and Practice. In M. D. Dunnette, and L.M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology*. 481-569. Palo Alto, CA: Consulting Psychologies Press, 1992.

Goffee, R. and R. Scase. *Corporate Realities*. London: Routledge, 1995.

Granlund, M. and J. Taipaleenmaki. "Management Control and Controllership in New Economy Firms - A Life Cycle Perspective." *Management Accounting Research*. 16(1), (2005): 21-57.

Greiner, L. "Evolution and Revolution as Organizations Grow." *Harvard Business Review*. 50(4), (1972): 37-46.

Gupta, Y.P. and D.C.W. Chin. "Organizational Life Cycle: A Review and Proposed Directions for Research." *The*

Mid-Atlantic Journal of Business. 30(3), (1994): 269-294.

Halil, K. and R. Hodgin. "Enhancing Clarity and Completeness of Basic Financial Text Treatments on Operating Leverage." *Journal of Economics and Finance Education*. *2*(1), (2003): 35-45.

Hillidge, J. "Planning for Growth in a Small Company." *Long Range Planning.* 23(3), (1990): 76-81.

Huselid, M. A., S. E. Jackson, and R. S. Schuler. "Technical and Strategic Human Resource Management Effectiveness as Determinants of Firm Performance." *Academy of Management Journal.* 40, (1997): 171-188.

ISED (Institute of Small Enterprises and Development). *India: the State of Development of Small and Medium Enterprises-2005*. Kochi: Institute of Small Enterprises and Development, 2005.

Jawahar, I.M. and G.L. McLaughlin. "Toward a Descriptive Stakeholder Theory: An Organizational Life Cycle Approach. *Academy of Management Review*. 26(3), (2001): 397-414.

Jensen, M. "Agency Costs of Free Cash Flow, Corporate Finance and Takeovers." *American Economic Review*. 76, (1986): 323-339.

Kalleberg, A.L. and M.E. Van Buren. Is Bigger the Better? "Explaining the Relationship between Organization Size and Job Rewards. *American Sociological Review*. 61, (1996): 47-66.

Kimberly, J. and R. Miles. *The Organizational Life Cycle.* San Francisco, CA: Jossey-Bass Publishers, 1980.

Lester, D. L. and J. A. Parnell. *The progression of Small and Medium-Size Enterprises (SME) through the Organizational Life Cycle*. Association of Small Business and Entrepreneurship, (2005): 202-215.

Lippitt, G., and W. *Schmidt.* "*Crisis in a Developing Organization." Harvard Business Review*. 45(6), (1967): 102-112.

Lodahl, T. and S. Mitchell, "Drift in the Development of Innovative Organizations. In J. Kimberly and R. Miles (Eds)." *The Organizational Life Cycle.* San Francisco, CA: Jossey-Bass Publishers, (1980): 184-207.

Lyden, F. "Using Parsons' Functional Analysis in the Study of Public Organizations." *Administrative Science Quarterly*. 20(1), (1975): 59-70.

Madhani, P. M. "Rebalancing Fixed and Variable Pay in a Sales Organization: A Business Cycle Perspective." *Compensation and Benefits Review*. 42(3), (2010a): 179-189.

Madhani, P. M. "Realigning Fixed and Variable Pay in Sales Organizations: An Organizational Life Cycle Approach." *Compensation and Benefits Review*. 42(6), (2010b): 488-498.

Madhani, P. M. "Sales Employee Compensation: An Optimal Balance between Fixed and Variable Pay." *Compensation and Benefits Review*. 41(4), (2009): 44-51.

Marshall, J. and E.M. Heffes. "Smaller Firms Most Vulnerable To Problems." *Financial Executive.* 20(7), (2004): 11.

Matlay, H. "The Paradox of Training in the Small Business Sector of the British Economy." *Journal of Vocational Education and Training*. 49, (1999): 573-589.

Mellow, W. "Employer Size and Wages." *Review of Economics and Statistics*. 64(3), (1982): 495-501.

Mintzberg, H. "Power and Organization Life Cycles." *Academy of Management Review*. 9(2), (1984): 207-224.

Mount, J., J. T. Zinger, and G. R. Forsyth. "Organizing for Development in the Small Business." *Long Range Planning.* 26(5), (1993): 111-120.

Mulhern, M. and C. Stewart. "Long-Term Decline of Small and Medium Size Enterprise Share." *Small Business Economics*. 21, (2003): 215-224.

Newberry, D. "The Importance of Small and Mid Sized Enterprise in Emerging Economies." 2006. <*http://www.wri.org/climate/topic_content.cfm? cid=4220*>. Accessed October 3, 2011.

Paauwe, J. "Human Resource Management and Performance: Achieving Long Term Viability." Oxford: Oxford University Press, 2004.

Richardson, S. "Over-Investment of Free Cash Flow." *Review of Accounting Studies*. 11, (2006): 159-189.

Ritchie, J. "Strategies for Human Resource Management: Challenges in Smaller and Entrepreneurial Organizations." In R. Harrison (Ed.). *Human Resource Management.* Wokingham, UK: Addison-Wiley, (1993): 111-135.

Saini, D.S. and P. S. Budhwar. "Managing the human resource in Indian SMEs: The Role of Indigenous Realities." *Journal of World Business*. 43(4), (2008): 417-434.

Schuler, R. and S. Jackson. *Strategic Human Resource Management*. London: Blackwell, 1999.

Scott, M., I. Roberts, G. Holroyd, and D. Sawbridge. "Management and Industrial Relations in Small Firms." London: Department of Employment Research (1989): 70.

Singh, M., and N. Vohra. "Level of Formalisation of Human Resource Management in Small and Medium Enterprises in India." *Journal of Entrepreneurship*. 18(1), (2009): 95-116.

Singh, M. and N. Vohra. "Strategic Human Resource Management in Small Enterprises." *Journal of Entrepreneurship*. 14(1), (2005): 57-70.

Smith, K., T. Mitchell, and C. Summer. "Top level Management Priorities in Different Stages of the Organizational Life Cycle." *Academy of Management Journal*. 28(4), (1985): 799-820.

Srimannarayana, M. "Human Resource Development climate in Dubai Organization." *Indian Journal of Industrial Relations*. 43(1), (2007): 1-12.

Stewart, J. and G. Beaver, *HRD in Small Organizations Research and Practice*. London: Routledge, 2003.

Storey, D. *Understanding the small business sector*. London, UK: International Thomson Business Press, 1994.

Torbert, W. R. "Pre-bureaucratic and Post-Bureaucratic Stages of Organization Development." *Interpersonal Development*. 5(1), (1974): 1-25.

Toynbee, A. *A Study of History*. Oxford, England: Oxford University Press, 1957.

Van Horne, J. C., and J. M. Wachowicz. *Fundamentals of Financial Management.* (13th ed.), Englewood Cliffs, NJ: Prentice-Hall, 2008.

Whetten, D. A. "Organizational Decline: A Neglected Topic in Organizational Science." *Academy of Management Review*. 5, (1980): 577-588.

Wilkinson, A. Employment relations in SMEs. *Employee Relations.* 21, (1999): 206-217.

Williamson, I. O. "Employer Legitimacy and Recruitment Success in Small Businesses. *Entrepreneurship: Theory and Practice*. 25(1), (2000): 27-43.

<www.indiabudget.nic.in> <www.oecd.org>

<www.rbi.org.in> <www.smechamberofindia.com>

Privatization of Telecom: Public Sector on the Wane

Amulya M. and D. Anand

Abstract

The Indian telecom industry, the world's fastest growing industry with 851.70 million mobile phone subscribers as of June 2011, is the second largest telecommunication network in the world in terms of number of wireless connections after China. It is projected that India will have 1.159 billion mobile subscribers by 2013. Global consultancies indicate that the total number of subscribers in India will exceed the total subscriber count in the China by 2013. The industry is expected to reach a size of 344,921 crores (US$76.92 billion) by 2012 at a growth rate of over 26 percent, and generate employment opportunities for about 10 million people during the same period. The paper delineates the eclipse of the public sector with the advent of the private sector.

Key words:

Privatization, Telecom, FDI, GDP, Subscribers, BSNL.

Amulya M., Asst. Professor, DoS in Business Adminstration, Bahadur Institute of Management Sciences, Manasagangothri, University of Mysore, Mysore-570006, amulyabims@gmail.com

D. Anand, Professor and Chairman, DoS in Business Adminstration, Bahadur Institute of Management Sciences, Manasagangothri, University of Mysore, Mysore - 570006 Email: danmysore@gmail.com

A large population, low telephony penetration levels, and a rise in consumer spending power have helped India to become the fastest-growing telecom market in the world. The market's first operator was the state-owned Bharat Sanchar Nigam Limited (BSNL), created by corporatization of the Indian Telecommunication Service, a government unit formerly responsible for provision of telephone services. Subsequently, after the telecommunication policies were revised to allow private operators, companies such as Bharti Airtel, Reliance Communications, Tata Teleservices, Idea Cellular, Aircel and Loop Mobile have entered the market (Bharti Airtel currently being the market leader in India).

The total number of telephones in the country stands at 885.99 million, while the overall tele-density has increased to 73.97 percent as of June 30, 2011. Mobile telephony experiences growths at rates such as adding up 12-14 millions of customers every month.

History of Indian Telecom

The history of Indian telecom can be traced from 1851. The Indian telecom service is segmented into two distinct markets- the wire line and wireless services. Some of the important milestones in the communication industry in India are:

Role of TRAI

The entry of private service providers brought with it the inevitable need for independent regulation. The Telecom Regulatory Authority of India (TRAI) was, thus, established with effect from 20th February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997, to regulate telecom services, including revision of tariffs for telecom services which were earlier vested in the Central Government.

TRAI's mission is to create and nurture conditions for growth of telecommunications in the country in manner and at a pace, which will enable India to play a leading role in emerging global information society. One of the main objectives of TRAI is to provide a fair and transparent policy environment, which promotes a level playing field and facilitates fair competition. In pursuance of above objective TRAI has issued from time to time a large number of regulations, orders and directives to deal with issues before it and provided the required direction to the evolution of Indian telecom market from a Government owned monopoly to a multi operator multi service open competitive market. The directions, orders and regulations issued cover a wide range of subjects including tariff, interconnection and quality of service as well as governance of the Authority.

Table 1: History of Indian Telecom

Year	Milestones
1851	First operational land lines were laid by the government near Calcutta (seat of British power)
1881	Telephone services introduced in India
1883	Merger with the postal system
1923	Formation of Indian Radio Telegraph Company (IRT)
1932	Merger of ETC and IRT into the Indian Radio and Cable communication company (IRCC)
1947	Nationalization of all foreign telecommunication companies to form the posts, telephone and telegraph (PTT), a monopoly run by the government's ministry of communications.
1985	Department of Telecommunication (DOT) established, an exclusive provider of domestic and long distance service that would be its own regulator (separate from the postal system)
1986	Conversion of DOT into two wholly government owned companies; the Videsh Sanchar Nigam Limited (VSNL) for International telecommunications and Mahanagar Telephone Nigam Limited (MTNL) for service in Metropolitan areas.
1997	Telecom Regulatory Authority of India (TRAI) created.
1999	Cellular services launched in India. New National Telecom Policy is adopted
2000	DOT becomes a corporation, BSNL.

Source: TRAI

The TRAI Act was amended by an ordinance, effective from 24 January 2000, establishing a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI. TDSAT was set up to adjudicate any dispute between a licensor and a licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any direction, decision or order of TRAI. Despite several hiccups, in the way the Telecom

Regulatory Authority of India (TRAI), an Independent regulator has earned a reputation for transparency and competence.

Emergence as Major Players

In 1975, the Department of Telecom (DoT) was separated from Indian Post and Telecommunication Accounts and Finance Service. DoT was responsible for telecom services in entire country until 1985 when Mahanagar Telephone Nigam Limited (MTNL) was carved out of DoT to run the telecom services of Delhi and Mumbai. In 1990s the telecom sector was opened up by the Government for private investment as a part of Liberalization-Privatization-Globalization policy. Therefore, it became necessary to separate the Government's policy wing from its operations wing. The Government of India corporatized the operations wing of DoT on 1 October 2000 and named it as Bharat Sanchar Nigam Limited (BSNL). Many private operators, such as Reliance Communications, Tata Indicom, Vodafone, Loop Mobile, Airtel, Idea, Tata Docomo, Uninor, MTS, successfully entered the high potential Indian telecom market.

Impact of Macroeconomic Indicators on Indian Telecom Market

Telecom business is significantly influenced by the state of economy of a country and the major impacting factors are rate of growth of GDP, inflow of FDI, number of subscribers, etc. Recent upsurge in Indian economy particularly since the liberalization and market reforms leading to competition, has created tremendous opportunities for growth of telecom industry.

There are several yardsticks to measure this role and relationship of telecom services and macro economic factors in the context of market development. They can be listed as below:

1) Growth in GDP and tele-density
2) Higher GDP and increase in inflow of FDI
3) Growth of subscribers and Revenue of telecom sector
4) Population growth and telephone subscribers
5) Telecom sector contribution to GDP
6) Telecom Subscribers and telecom revenue

Hypothesis

To test the relationship between the macro economic factors and Telecom sector, the following null and alternative hypotheses are postulated:

H0 : There is no significant relationship between macro economic factors and telecom in India.

H1 : There is significant relationship between macro economic factors and telecom in India.

Research Methodology

The article is based on the secondary data collected through various reports of RBI, TRAI, and DOT reports for the last 10 years.

The following tables and paragraphs throw further light on the influence of individual macro economic factors on telecom in India with the help of the data for the period from 2000-01 to 2009-10.

Subscriber base is expected to have a positive relationship with revenue. To test this relationship Pearson Correlation Matrix analysis was performed with subscriber base and revenue for the period 2000–2011. The analysis indicates a strong positive correlation with the selected variables, i.e., revenue (0.913) with subscriber base. As the subscriber base grows over the years, total revenue is increasing proportionately but at average revenue per user is declining due to reduction in tariff rates.

Subscriber base is expected to have a positive relationship with population. To test this relationship Pearson Correlation Matrix analysis was performed with subscriber base and population for the period 2000–2011. The analysis indicates a strong positive correlation with the selected variables, i.e., population (0.915) with subscriber base. The growth in national population and the subscriber base has shown a linear growth trend over the years.

Pearson Correlation Matrix analysis was performed with GDP and Telecom Contribution for the period 2000–2010. The analysis indicates a strong positive correlation with the selected variables, i.e., GDP (0.995) with Telecom

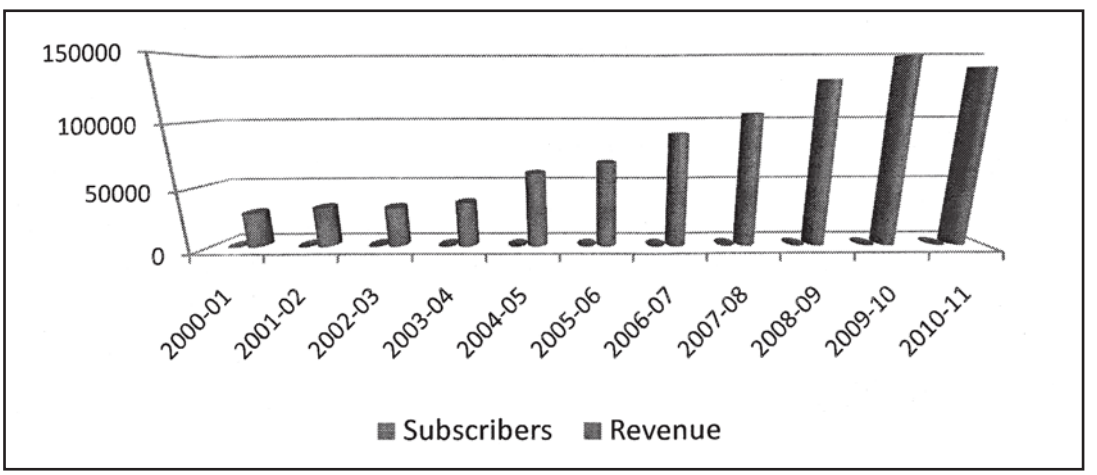
Table 2: Growth Subscribers and Revenue of Telecom Sector

Year	Subscribers Fig. in Cr.	Reveneue (₹ Cr.)
2000-01	3.63	28000
2001-02	4.49	32000
2002-03	5.46	32000
2003-04	7.55	36000
2004-05	9.84	60000
2005-06	14.03	680000
2006-07	20.68	90000
2007-08	30.05	105000
2008-09	42.97	130200
2009-10	62.13	147000
2010-2011	84.63	138600

Correlation Coefficient
r = 0.913

Source: RBI Statistics 2009-10 & TRAI Annual Report 2009-10

Graph No: 1: Growth Subscribers and Revenue of Telecom Sector



Contribution. The high growth of GDP induces economic effect through higher per capita and disposable income and savings, which in turn creates favourable market and demand for telecom sector. However, it has also been observed that in India while the economy in general has registered significant growth, telecom sector is not left far behind with a very strong positive correlation between GDP and telecom contribution.

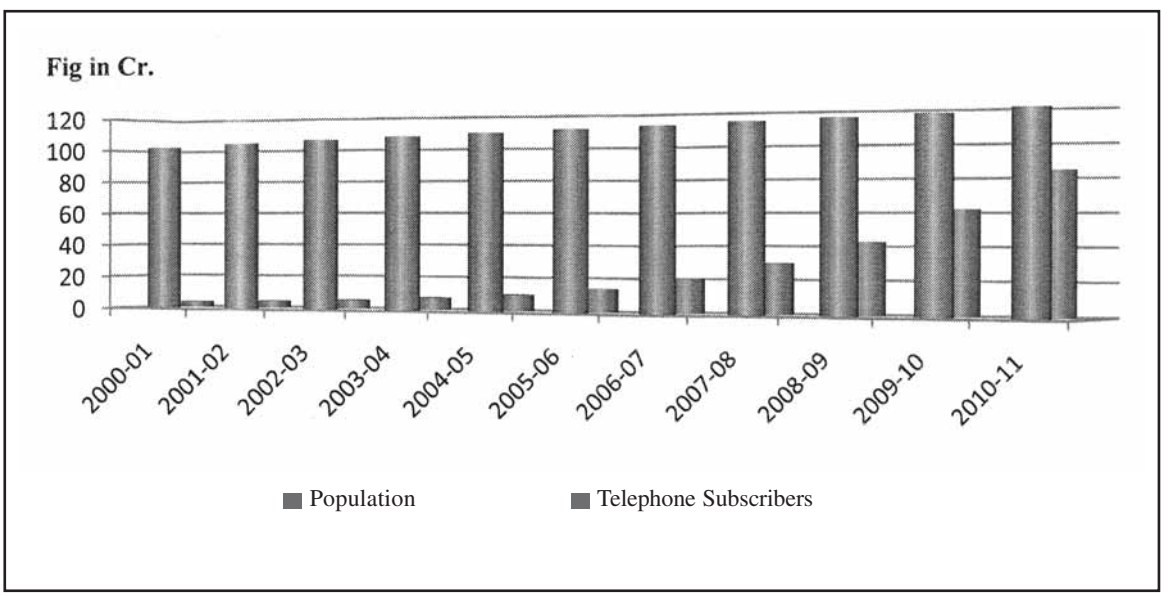
Table 3: Growth in Population and Telephone Subscribers

Year	Subscribers Fig. in Cr.	Reveneue Fig. in Cr.
2000-01	101.9	3.63
2001-02	104	4.49
2002-03	105.6	5.46
2003-04	107.2	7.55
2004-05	108.9	9.84
2005-06	110.6	14.03
2006-07	112.2	20.68
2007-08	113.8	30.05
2008-09	115.4	42.97
2009-10	117	62.13
2010-2011	120	84.63

Correlation Coefficient
r = 0.915

Source: RBI Statistics 2009-10 & TRAI Annual Report 2009-10

Graph 2: Growth in Population and Telephone Subscribers



Tele-density is expected to have a positive relationship with GDP. To test this relationship Pearson Correlation Matrix analysis was performed with tele-density and GDP for the period 2001–2010. The analysis indicates a strong positive correlation with the selected variables, i.e., tele-density (0.971) with GDP. The analysis shows a linear trend over the years and a rapid growth rate from 2005-06 onwards are due to entry of new private telecom service providers.

Table 4: Growth in GDP and Contribution of Telecom Sector

Year	GDP (At Factor Costs ₹ in Cr.)	Telecom Contribution (₹ in Cr.)
2000-01	1925017	28875.25
2001-02	2097726	35661.34
2002-03	2261415	36182.64
2003-04	2538170	40610.72
2004-05	2967599	65287.18
2005-06	3402316	74850.95
2006-07	3941865	90662.89
2007-08	4540987	104442.7
2008-09	5228650	135944.9
2009-10	5868332	164313.3

Correlation Coefficient r = 0.995

Source: RBI Statistics 2009-10 & TRAI Annual Report 2009-10

Graph 3: Growth in GDP and Contribution of Telecom Sector

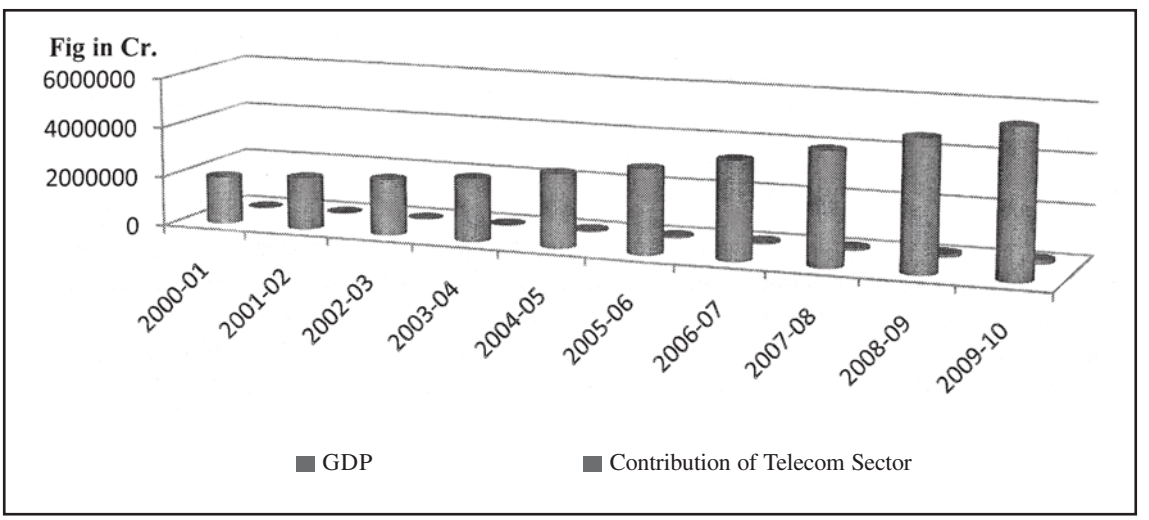


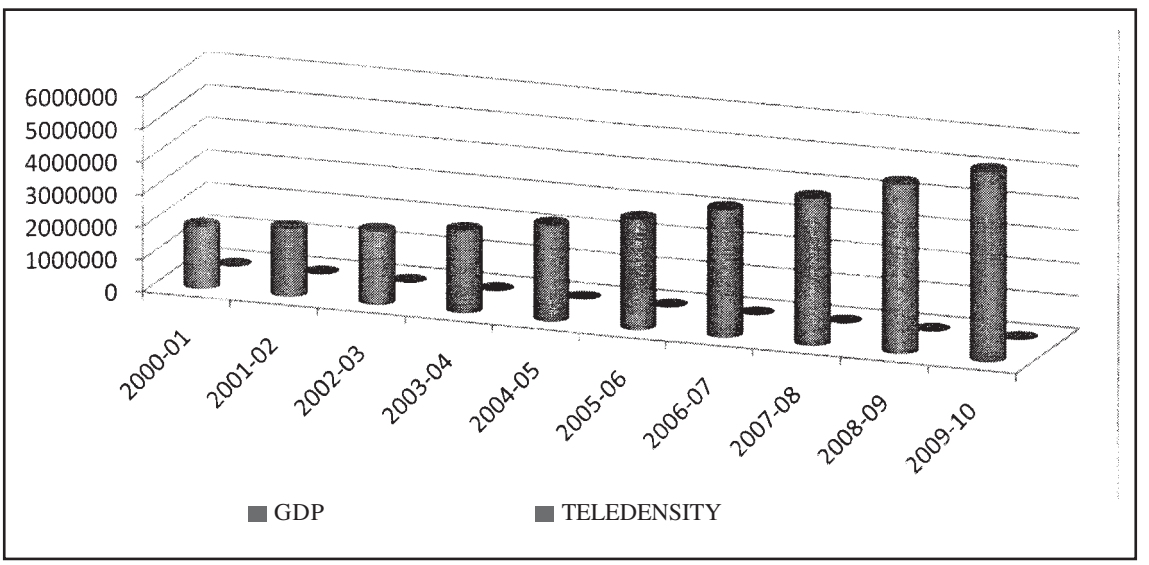
Table 5: Growth in GDP and Tele-density

Year	GDP (At Factor Costs ₹ in Cr.)	Tele-density
2000-01	1925017	3.6
2001-02	2097726	4.3
2002-03	2261415	5.1
2003-04	2538170	7

Correlation Coefficient r = 0.995

2004-05	2967599	9.08
2005-06	3402316	12.86
2006-07	3941865	18.23
2007-08	4540987	26.22
2008-09	5228650	36.98
2009-10	5868332	52.74

Graph 4: Growth in GDP and Tele-density



FDI in Indian Telecom Sector

FDI plays an important role in telecom sector as well as an economy as a whole. Earlier, there were very few public players like BSNL, MTNL and VSNL in this sector but as the time progressed and competition increased, the private players like Airtel, Reliance , Tata, Vodafone and Idea entered the market, which changed the whole scenario of telecom sector. FDI is vital because they not only bring capital and technology into the market but they provide employment opportunities and effective productivity also. The liberalization measures post-1990 has changed with foreign investments radically, now portfolio as well as FDI are not only allowed but also actively encouraged. During the decade of the 90's, the ceiling on FDI in different sectors was progressively raised. Over the years, 100 percent foreign investments were allowed in several industrial sectors and in almost all the infrastructure sectors.

FDI in telecom has been hiked up from 49 percent to 74 percent. This move is positive for the sector, as it requires investments of ₹ 700-900 million over the next five years. There are restrictions related to remote access, transfer of network information outside India and international transit routing of Indian traffic. It has been decided to enhance the FDI in telecom services in areas like basic telecom, cellular unified access services (UCC), internet, long distance services, public mobile, radio service etc.

FDI is expected to have a positive relationship with GDP. To test this relationship Pearson Correlation Matrix analysis was performed with FDI and GDP for the period 2000–2010. The analysis indicates a strong positive correlation with the selected variables, i.e., FDI (0.863) with GDP. The growth in national GDP and FDI has revealed a linear growth trend from FY01 to FY10. Indian telecom sector has witnessed growing FDI inflow along with the entry of foreign telecom service providers.

Table 6: Growth in GDP and FDI Inflow

Year	GDP (At Factor Costs ₹ in Cr.)	FDI in Telecom (₹ in Cr.)
2000-01	1925017	784
2001-02	2097726	3998
2002-03	2261415	908
2003-04	2538170	409
2004-05	2967599	570
2005-06	3402316	2774
2006-07	3941865	2155
2007-08	4540987	5103
2008-09	5228650	11727
2009-10	5868332	12338

Correlation Coefficient
r = 0.971

Source: RBI Statistics 2009-10 & TRAI Annual Report 2009-10

Graph 5: Growth in GDP and FDI Inflow

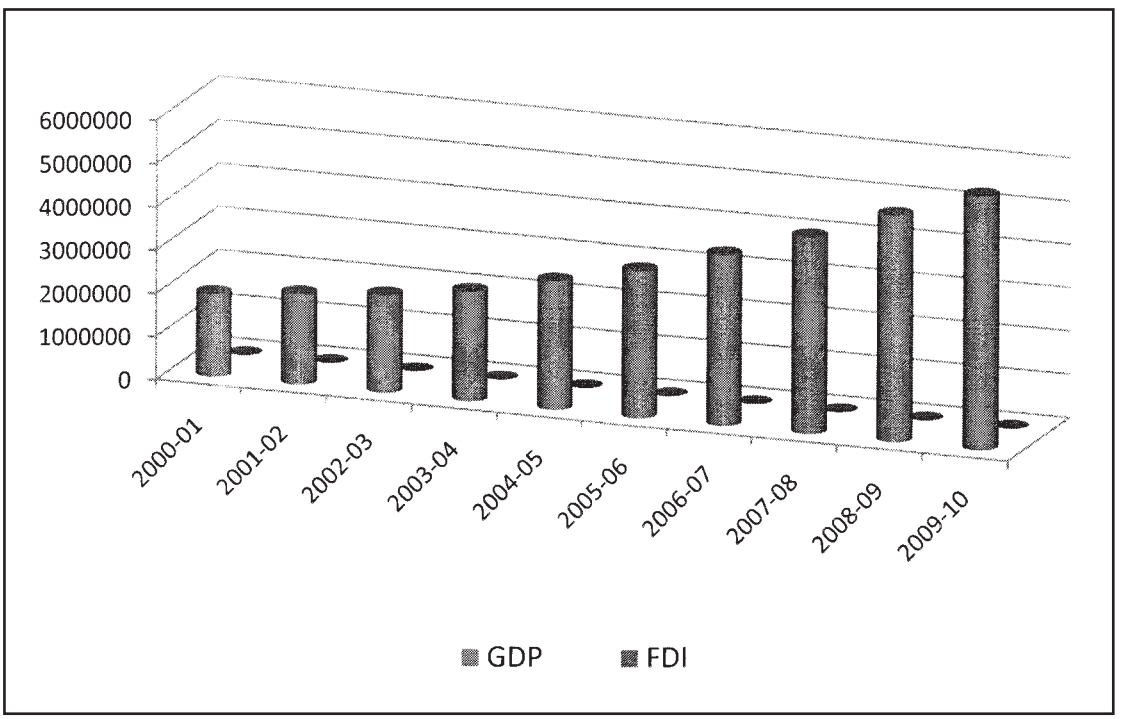


Table 7: Private vs. Public Telephone Connections

Year	% Public Telephone Connections	% Private Telephone Connections
2004	60.73	39.27
2005	52.95	47.05
2006	42.99	57.01
2007	34.68	65.32
2008	26.47	73.53
2009	20.84	79.16
2010	15.40	84.60

Source: TRAI Reports 2004 to 2010

Table 8: Public and Private Subscriber-base in Wireless Segment [Fig. in Million]

Year	Public	Private	Total
2002	0.26	6.28	6.54
2003	2.64	10.35	13
2004	5.99	27.7	33.69
2005	10.36	41.86	52.22
2006	18.73	71.41	90.14
2007	81.15	152.85	234
2008	91.85	255.15	347
2009	109.41	415.59	525
2010	81.46	447.54	529
2011	94.08	761.00	855

Source: Association of basic telephone operators

Table 9: Call Tariffs Chart [Fig in ₹ Per Minute]

Year	Fixed Line	GSM
1998	1.2	15.5
1999	1.2	15
2000	1	7.3
2001	1	4.3
2002	1	3.8
2003	1	3.5
2004	1	2
2005	1	1.2

2006	1	1.1
2007	1	1
2008	1	0.8
2009	1	0.6
2010	1	0.5
2011	1	0.3

Source: Association of basic Telephone Operators

Table 10: Long Distance Peak Tariff Rates (₹/min)

Year	National Long Distance	International Long Distance
1998	44	130
1999	30	88
2000	25	74
2001	10	36
2002	8	24
2003	6	17
2004	5.8	16.2
2005	5.3	13.8
2006	5.1	10.3
2007	4.9	8.5
2008	3.5	6.7
2009	2.8	5.3
2010	1.5	4.5
2011	1	3.3

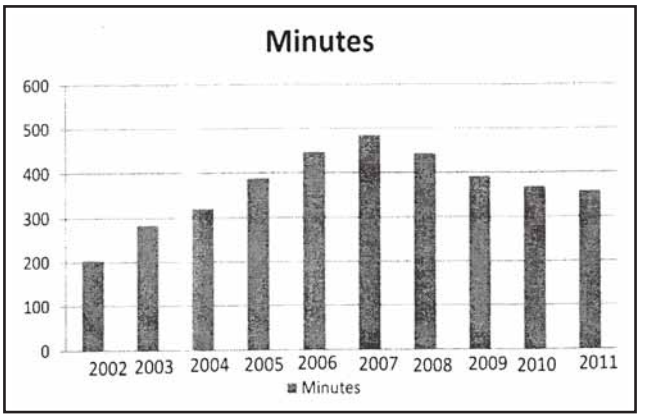
Source: Association of Basic Telephone Operators

Table 11: Minutes of Usage Per Month Per Subscriber in India

Year	Minutes
2002	2004
2003	284
2004	321
2005	388
2006	488
2007	485
2008	444
2009	392
2010	369
2011	358

Source: DoT

Graph 6: Minutes if Usage Per month Per Subscriber in India



Graph 7: Average Reveneue Per Minute

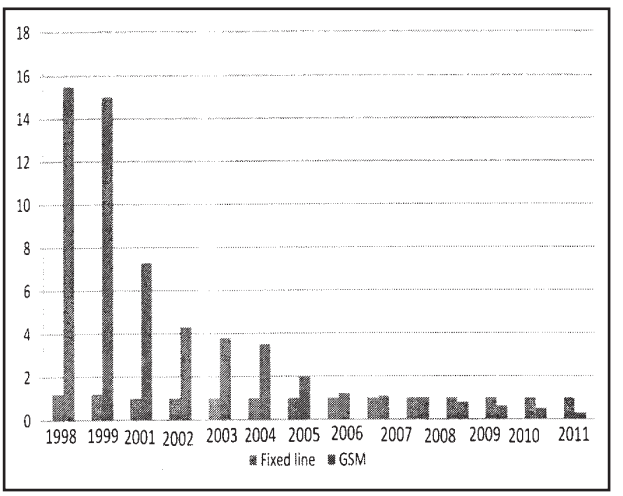


Table 12: Average Revenue per Minute

Year	Fixed line (Rs.)	GSM (Rs.)
1998	1.2	15.5
1999	1.2	15
2000	1	7.3
2001	1	4.3
2002	1	3.8
2003	1	3.5
2004	1	2
2005	1	1.2
2006	1	1.1
2007	1	1
2008	1	0.8
2009	1	0.6
2010	1	0.5
2011	1	0.3

Source: DoT

Private vs. Public

The fruits of the liberalization efforts of the Government are evident in the growing share of the private sector. The private sector is now playing an important role in the expansion of telecom services. The share of private sector in total telephone connections is now 84.60 percent as per the latest statistics available as on December, 2010 as against a mere five percent in 1999.

From the above tables it is noted that, the sector is now characterized by many players, there is a steep decline in tariff, falling minutes of usage, falling ARPU. This credit goes to the high network expansion and low cost of operations due to technological innovations. Intense competition with 17 operators in as service area has led to a free-fall in tariffs both for voice and data. However, this has not been matched by an increase in minutes of use (MoU) per connection per month. Which on the contrary, has witnessed a drastic fall from a peak of 485 minutes in 2007 to 358 minutes at the end of march 31st 2011, a decline of more than 20 percent. The decline in the MoUs is noted though there was falling tariffs.

As a result, average revenue per month (ARPU) has witnessed a steep fall and India currently has one of the lowest ARPU's in the world at approximately 1/3rd and 1/10th the average levels in developing and developed markets respectively. The consequence of these trends is that the telecom market revenues have started to stagnate. Although the number of connections grew by 43 percent in 2010, the telecom market revenues increased by a mere five percent.

While the revenue growth is declining, driven by inflation, the cost burden of operators continued to increase. Network operating expenses of all operators have increased significantly with time. Also the operators have been incurring additional expenses on account of compliance to regulatory initiatives such as mobile number portability (MNP), Unified Access Services (UCC), subscriber verification and stricter Electro Magnetic Frequency (EMF) requirements and lawful interception. As a result of being squeezed from all sides, the financial position of operators is under significant stress. The profit after tax margins of operators has been deteriorating significantly and in fact are negative for a large number of operators.

Testing of Hypostheses

H0 : There is no significant relationship between macro economic factors and telecom in India.

H1 : There is significant relationship between macro economic factors and telecom in India.

The above hypothesis is tested by applying Karl Pearson Correlation Matrix Analysis at 0.01 significance level and the results are shown in the following table.

Table 13: Pearson Correlation Matrix Analysis

Macro Economic Variables	Telecom Sector Variables	Correlation "r"	Significance "p"
GDP (At Factor Costs ₹ in Cr.)	Telecom Contribution (₹ in Cr.)	0.995*	0.000
GDP (At Factor Costs ₹ in Cr.)	Teledensity	0.971*	0.000
GDP (At Factor Costs ₹ in Cr.)	FDI in telecom (₹ in Cr.)	0.863*	0.001
Population [Fig in Cr]	Subscribers Fig. in Cr.	0.915*	0.000
Subscribers Fig. in Cr.	Revenue (₹ Cr.)	0.913*	0.000

** Correlation is significant at the 0.01 level (2-tailed). Source: RBI Statistical annual report 2009-10.

The above table reveals that there is a strong positive correlation between macro economic factors and telecom sector in India as correlation coefficient -r is more than 0.7 in all cases and the obtained P value i.e., 0.00 is less than the assumed significance level of 0.01 which indicates that all macro economic factors exert a significant influence on the telecom business in India since deregulation of Indian telecom industry. Hence the null hypothesis, 'there is no significant relationship between macro economic factors and telecom sector in India' is rejected and the alternative hypothesis, 'there is significant relationship between macro economic factors and telecom sector in India' is accepted.

Conclusion

By analyzing the impact of privatization and competition on a comprehensive set of indicators of performance in the telecommunications sector in India during the past one decade, so the privatization and competition have improved performance and service quality, from state owned monopoly to more players, fighting for the same portion of the customers today with reduced tariff rates and undifferentiated services.

References

Ashok Desai (2000) Indian telecom industry, Voice and Data magazines, <www.trai.gov.in> RBI, DOT and TRAI Reports.

Achieving Innovation and Success: Organizational Learning

Kalyani Mohanty and Subhasree Kar

Abstract

Learning paves the way for success. Learning adds value and helps in the acquisition of new knowledge that enlightens the lives of people and their work. In this globalized knowledge economy organizations strives to be in an advantageous position by practising organizational learning. This paper is an attempt to study the status of an organization from learning organization perspective. It diagnoses the organizational learning capability of HP and examines how far the organization is a Learning Organization.

Key words:

Learning Organization, Organizational Learning, Potential for Learning Organization Index.

Dr. Kalyani Mohanty, Reader, Department of PMIR, Utkal University, Vani Vihar, Bhubaneswar, Orissa, Email: mkalyani58@yahoo.co.in

Subhasree Kar, Asst Professor, Sambhram Academy of Management Studies, Amba Bhavani Temple Road, Jyothi Nagar, Near M.S.Palya, Via Jalahalli East, Bangalore, Karnataka - 560097, Email: karsubhasree@yahoo.com

The dream of learning organization is the demand of the new knowledge based economy and the learning society. The conventional organizations are taking steps to realize the dream and transform into learning organizations. The current business scenario characterized by globalization, rise in the service sector, customer driven markets, new technology, stiff competition, creates the demand for such type of organizations where there should be innovation, experimentation, divergent ways of thinking and unique problem solving to achieve the goals in qualitative terms and realize the cherished vision and mission through proper planning and building of competencies.

In this Information age organizations realized the importance of learning as an efficient and effective measure towards sustainability and competencies in the changing business environment. This is the need of the hour to create learning organizations that can provide continuous learning opportunities by using learning to reach their goals by linking individual performance with organizational performance. Learning organizations are different from the conventional

organizations because of its ability to update knowledge continuously with Unique Selling Propositions, Core Competencies and Knowledge based intangible assets and life-long learning. Learning organization culture fosters inquiry and dialogue, making it safe for people to share openly and takes risks, discusses problems openly and listens to each other and grows with sharing of knowledge adopting knowledge management practices. Learning Organization creates that environment which provides organizations the opportunities to discover who they are, where they want to go, and define the quality of life they wish to pursue. It empowers people to effect change, improve quality, bring innovation and expand the boundaries of the business.

The paper starts with a theoretical focus on organizational learning and learning organization and how organizational learning makes learning organizations with extensive literature review, followed by a brief on the organization for study, research methodology, results and discussion with a concluding remark.

Review of Literature

Organizational Learning

The idea of organizational learning and learning organisation has been present in the management literature for decades, but it has only become widely recognized since around 1990 by Peter Senge in his most popular and acclaimed book *The Fifth Discipline* where he described Learning Organization are places where people continually expand their capacity to create the results they truly desire, where new and expensive patterns of thinking are nurtured, collective aspiration is set free and people are continually learning to see the whole together." He writes that a learning organization values and derives competitive advantage from continuing learning, both individual and collective. The dimension that distinguishes learning from more traditional organizations is the mastery of certain basic disciplines or "component technologies." Following are the five disciplines that help in converging to innovate learning organizations.

1. Personal Mastery,
2. Mental Models,
3. Shared Vision,
4. Team Learning, and
5. System Thinking.

Senge's five disciplines are integral components in a learning organization, providing tools and methods that are applicable and useful in the process of organizational learning.

'Organizational Learning' and 'Learning Organization' are the two terms used interchangeably, if not as synonyms. The two most common ways to distinguish between organizational learning and learning organization in existing literature are:

That learning organization is a form of organization while organizational learning is an activity or processes (of learning) in organizations. Organizational learning is a concept used to describe certain types of activity that take place in an organization while the learning organization refers to a particular type of organization in and of itself (Tsang, 1997, DiBella, 1995, Elkjaer, 1999, Finger and BuÈrgin Brand, 1999, Lundberg, 1995).

In order to clarify this distinction, we have to view the concept of "organization form" from a traditional perspective. Thus, organizational learning would be processes going on in the learning Organization (e.g. Jones and Hendry, 1994), or learning organization is a specific kind of organizational learning (e.g. Easterby- Smith, 1997; Huysman, 1996), i.e. a form of organization where processes of learning in some way or another are important. Learning organization is described as something that any company can become organizational learning is the '*activity* and the *process* by which organizations eventually reach the ideal of a learning organization' (Finger and Brand 1999). Organisational learning is the ability of an organization to gain insight and understanding from experience through experimentation, observation, analysis, and a willingness to examine both successes and failures"… and then respond to that learning.

Schwandt (1993) defined organizational learning as: a system of actions, actors, symbols and processes that enables an organization to transform information into valued knowledge which in turn increases its long-run adaptive capacity. Schwandt's model emphasizes the relationships and integration of subsystems, which allows the organization to increase its learning capacity.

The second point of distinction is that - Learning organization needs efforts while organizational learning exists without any efforts. The most obvious implication of the distinction, distinguishes between something that exists

naturally without any efforts and something that does not naturally exist but needs activity or effort to be carried out. In this case, all organizations would have organizational learning, but only some would be learning organizations. For instance, Dodgson (1993) uses the term "natural state" for organizational learning, while learning organization is seen to move beyond natural learning: Organizational learning is as natural as learning in individuals . . . the "learning organization" can be distinguished as one that moves beyond this "natural" learning, and whose goals are to thrive by systematically using its learning to progress beyond mere adaptation.

Another popular way to differentiate between the two terms, or perhaps another variant of the descriptive vs. normative distinction, is that Organizational Learning says about single and double loop learning, how does one organization learn and the socio and psychological process of learning and tries to be descriptive in approach which is academic oriented. In the other hand the literature of learning organization is practice-oriented and often written by consultants that focus on the interventions and prescriptions that are required by an organization in the process of continuous change (e.g. Argyris, 1999; Argyris and SchoÈn, 1996; Easterby-Smith,1997).

Organizational learning is described as a technical or a social process in different models and forms of learning by different researchers Easterby-Smith and Araujo (1999). The technical view assumes that organizational learning is about the effective processing, interpretation of, and response to, information both inside and outside the organization. This information may be quantitative or qualitative, but is generally explicit and in the public domain. The social perspective on organization learning focuses on the way people make sense of their experiences at work. These experiences may derive from explicit sources such as financial information, or they may be derived from tacit sources, such as the 'feel' that skilled craftsperson has, or the intuition possessed by a skilled strategist. From this view, learning is something that can emerge from social interactions, normally in the natural work setting. In the case of explicit information it involves a joint process of making sense of data. The more tacit and 'embodied' forms of learning involve situated practices, observation and emulation of skilled practitioners and socialization into a community of practice.

A classic expression of the technical view can be found in the work of Argyris and Schönon single- and double-loop learning (1978, 1996). Single-loop learning with its emphasis on the detection and correction of errors within a given set of governing variables is linked to incremental change in organizations. Double-loop learning involves interrogating the governing variables themselves and often involves radical changes such as the wholesale revision of systems, alterations in strategy and so on. Chris Argyris in his 'Theory in Action' concept originally developed for individuals defines organizational learning in terms of restructuring of organizational theory in action. According to him, Organizational Learning occurs when members of the organization acts as learning agents for the organization, responding to changes in the external and internal environments of the organization by detecting and correcting organizational theory in use, and embedding the results of their enquiry in private images and shared maps of the organization. Those operating within the social perspective may view organizational learning as a social construction, as a political process, and/or as a cultural artifact (Easterby-Smith and Araujo 1999).

In summary, organizations, like individuals, can learn. Many of the fundamental phenomena of learning are the same for organizations. However, organizational learning also has distinctive characteristics with reference to what is learned, how it is learned, and the adjustments called for to enhance learning. These derive from the fact that any organization by definition is a collective unit with individuals and larger units in different roles that involve different perspectives and values, passing information through their own filters, and with noisy and loss-prone information channels connecting them. Organizational learning (OL) is more than individual learning and arises through the interaction of individuals in groups and teams of different sizes.

Although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of its members' learning. Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their personalities, personal habits, and beliefs over time, organizations develop world views and ideologies. Members come and go, and leadership changes, but organizations' memories preserve certain behaviours, mental maps, norms,

and values over time" (Hedberg, 1981). Organizational Learning is an emergent process whose outcome is not predictable and it is more than the separate contributions of individuals.

Organizational learning and the learning organization can and should co-exist. To be effective as a learning organization there is a need for a deep learning cycle and recognition that it will take time. Organizational learning occurs through shared insights, knowledge and mental models and builds on past knowledge and experience – that is on memory. Organizational learning is the key to management innovation.

Learning Organization

A learning organization is "an organization that is continually expanding its capacity to create its future." For such an organization, it is not enough to merely survive. 'Survival learning' or what is more often termed 'adaptive learning' is important - indeed it is necessary. But for a learning organization, 'adaptive learning' must be joined by 'generative learning,' learning that enhances our capacity to create" (Senge, Kleiner et al., 1994).

In a similar context Nonka (1991) said that knowledge creating companies are places where inventing new knowledge is not a specialized activity …. It is a way of behaving, indeed a way of being, in which everyone is a knowledge worker." A learning organization is an organization skilled at creating, acquiring and transferring knowledge and at modifying its behavior to reflect new knowledge and insights (Garvin, 1993).

The learning organization concept can be divided into different levels. Although the approaches to frame learning organization vary widely, many scholars depicted the learning organization through three levels - the individual level, the group level, and the organizational level (Cummings and Worley, 2001, Watkins and Marsick, 1996). The five discipline model suggested by Senge (1990) implicitly brings these three levels of learning. The individual level (mental models and personal mastery), the group level (team working) and the organizational level (shared vision and system thinking). Similarly Wakins and Marsick (1993, 1996) suggested the same three levels of organizational learning as a framework. They included at individual level two dimensions of organizational learning: continuous learning and dialogue and inquiry. In the group level they included team learning and collaboration. And in organizational level, they included four dimensions of Organizational learning: embedded systems, system connections, and empowerment and provide leadership for learning.

Building a learning organization requires real effort. In his article David A. Garvin (1993) mentioned that "Three M's "are to be addressed to have a firm foundation of Learning Organization.

- Meaning of learning organisation, which should be actionable and easy to apply.
- Management – we need clear guidelines for practice.
- Measurement – we need better tools for assessing an organisation rate and level of learning to ensure that gains have in fact been made.

It should be flexible. It does not provide rigid specification "how life should be lived," instead it is the act of shaping space to human needs and aspiration." With the Components of Strategic intent to learn, Learning mechanism and Supporting structure and processes learning organization can be possible.

No doubt new ideas insights, innovation, creativity are essential for a learning organization but these things do not happen by chance rather by design and practice. So distinctive policies, practices should be there, as the building blocks of a learning organization. To be a learning organization it requires an integrated policy which takes account of strategy, structure, culture, information system with knowledge management practices, good HR practices and effective Leadership.

Organization for Study

For the purpose of the study HP – the world's largest information technology company which is ranked 11th position in the Fortune 500 list this year is chosen. The survey is carried out at HP, Bangalore to diagnose organizational learning and to explore whether the corporate is a Learning Organization or not.

Objective of the Study

The objective of the study aims at distinguishing between organizational learning and learning organization and how organizational learning is the key to make a learning organization and further to diagnose and assess the status of HP from learning organization point of view.

Research Methodology

Nature of Study

An exploratory study with Survey Research.

Sample

100 executives of different rank and file were taken for the survey from HP Company with the method of Simple Random Sampling.

Data Collection

The primary data was collected with the administration of Organizational Learning Diagnostic (OLD) questionnaire. Secondary data was collected through extensive study of literature.

Survey Instrument

Organizational Learning Diagnostic (OLD) instrument has been taken for the study which has 23 items and respondents are required to rate each item in a five point scale. Three subsystem of organizational learning are there in OLD namely acquiring and experimenting (the innovation phase), retain and integrating (the implementation phase) and using and adopting (the stabilization phase). Furthermore all the 23 items can be grouped into five categories of OL mechanism: experimentation and flexibility, mutuality and team work, contingency and incremental planning, temporary systems and competency building. The high score of POLI (Potential for Organizational Learning Index) indicates a stronger organizational learning. Though OLD is a metrics that can gauge and evaluate learning in an organization, but this discussion will offer an alternative perspective, not about how to measure outcomes, but more about how to create learning environments that facilitate the achievement of specific or multiple, and related objectives.

Results and Discussions

The study found that Organizational Learning is a process, a continual series of interlinked activities producing several changes in any organization. If organizational learning is seen as a continuous learning cycle, then an organization can not arrive at a point in time when it declares itself "a learning organization," an end state. On the other hand, any organization can identify with being in a constant state of learning and declare itself to be practising organizational learning.

The present study says that HP's success is due to it being a learning organization which continually innovates and responds to consumer feedback by being ready to change and adapt according to the latest trends and technology. HP culture speaks acts and operates within their values which are further elaborated in their motto that is widely shared at HP "the HP way." The core organizational values have been embedded and practised over the years by its employees proves that HP is one of the best learning organizations today.

Descriptive Statistics showing Organizational Learning at HP:

In this study it was found that organizational learning is practised in HP and the organization is continuously trying to enhance its capacity for self learning and self renewal and to excel in the market. The high mean score of POLI in different phases of Organizational learning indicates that the organization in a right way is committed for innovation, its implementation and stabilization.

The mean score 95.56 – the highest one among the three phases reveals about HP's focus on innovation - acquiring new input and examining it which includes new structures; new technology or any change introduced in the organization.

Table – 1: Statistics of different phases of OL

Aspects	Mean	Variance	SD
P1- Innovation	95.56	39.89	6.31
P2- Implementation	86.42	82.25	9.06
P3- Stabilization	90.93	92.97	9.64

Table - 2: Statistics of Different OL Mechanisms

Aspects	Mean	Variance	SD
M1 –Experimentation	89.62	66.92	8.18
M2-Mutuality	82.81	73.19	8.55
M3-Planning	90.5	62.5	7.90
M4-Temporary System	80.83	47.47	6.89
M5-Competency Building	90.76	41.19	6.41

HP's focus on innovation has helped the company get through significant market changes. In 2003, HP borrowed from its own best practices and lessons learned to create the adaptive enterprise strategy, a formalized set of practices, services and technologies to help manage change and get more out of IT investments. The adaptive enterprise strategy is based on using change as a competitive advantage.

In regards to implementation the second phase of OL, which is concerned with the retention of the acquired input and integration of the new input with the existing one to make organizational learning more effective, HP's effort is really praiseworthy. Starting from knowledge management to retention of talents, HP sets a good example aligning its talent management strategy with its business strategy. The company follows a people based management system and rightly thinks about succession planning and career developments of the workforce.

The stabilization phase of OL is concerned with using the new input whenever it is needed and the present organization excels in doing that.

The table 2 shows the five general areas which are the mechanisms for Organizational Learning. The study shows that in almost all the mechanisms HP's mean score is high and more or less close among the mechanisms. From this, we can say that the organization having flexibility and positive attitude for experimentation and adopting new ways to approach issues and problems (M1). There is mutuality and team work within the organization in terms of mutual support, mutual respect, learning from one another, experience sharing, problem solving in a team, collaborative work and effective teams (M2). For the young talents at HP training programme are there where the young talents get a chance to interact face to face with the senior and experienced trainers and focuses on HP leadership standards. The organization also offers "Leadership Master Classes" during which the employees have a chance to meet and interact with senior leaders from within and outside the organization and learn from them and thereby builds learning networks. At HP ideas thrive best in teamwork culture. Mean score of 90.5 shows that there is effective planning at HP to produce the desired results (M3). One of the critical keys to adaptive strategy is HP's commitment to ongoing planning and employee development. Rather than based on employee development plans on job descriptions, an adaptive enterprise follows the need for on-going skills development. At HP, it all starts with workforce planning. The HP definition of workforce planning touches on many areas such as internal mobility, workforce profiling, career planning, resource management, training plans, compliance tracking and organizational design analysis. Use of temporary system using task groups, task forces, project groups is there to generate fresh ideas and take quick action. (M4). Lastly the highest mean score of 90.76 in the last one Competency Building emphasizes organization values its resources and committed towards building the core competencies at individual level to make the organizational learning more effective (M5) .

Conclusion

To compete successfully in a highly competitive and constantly changing business environment, the organizations need to have the ability to learn continuously. An ongoing process of Learning only can bring sustainable competitive advantage. Organizations therefore should create the learning cultures where innovations can be experimented with

mutuality, creation of temporary system, planning and developing employee competencies.

References

Argyris, Argyris, C. "On Organizational Learning." *Blackwells.* Oxford: 1999.

Argyris, C. and D.A. SchoÈ n, "Organizational Learning: A Theory of Action." *Perspective.* Addison-Wesley, London: 1978.

Argyris, C. and D.A. SchoÈ n, "Organizational Learning II: Theory, Method, and Practice." *Addison*. Wesley, Reading, MA: 1996.

Cummings, T.J. and Worley, C.G. "Organisation Development and Change (7th Edition)." *Cincinnati*. OH: Southwestern College, 2001.

Dogdson, M. "Organizational Learning: A Review of Some Literatures." *Organization Studies.* Vol. 14, No. 3, (1993): 375-394.

DiBella, A.J. "Developing Learning Organizations: A Matter of Perspective." *Academy of Management: Best Papers Proceedings*. (1995): 287-90.

Easterby-Smith, M. "Disciplines of Organizational Learning: Contributions and Critiques." *Human Relations*. Vol. 50, No. 9, (1997): 1085-113.

Easterby-Smith, M. and L. Araujo. "Organizational Learning: Current Debates and Opportunities." in Easter by-Smith, M., J. Burgoyne and L. Araujo (Eds), Organizational Learning and the Learning Organization: Developments in Theory and Practice, Sage, London, (1999): 1-21.

Elkjaer, B. "In search of a social learning theory." in Easterby-Smith, M., Burgoyne J. and L. Araujo (Eds), Organizational Learning and the Learning Organization: Developments in Theory and Practice, Sage, London, (1999): 75-91.

Finger, M. and S. BuÈ rgin Brand. "The Concept of the Learning Organization Applied to the Transformation of the Public Sector: Conceptual Contributions for Theory Development.'' in Garvin, D.A. (1993), "Building a Learning Organization." *Harvard Business Review.* Vol. 71, No. 4, (1999): 78-91.

Hedberg, B. "How organizations learn and unlearn." in Nystrom P.C. and Starbuck W.H. (Eds), *Handbook of Organizational Design*. Oxford University Press, Oxford, (1981): 3-27.

Huysman, M. "Dynamics of Organizational Learning." *Unpublished Doctoral Dissertation*. University of Vrije, Amsterdam: 1996.

Jones, A.M. Hendry C. "The Leading Organization: A Review of Literature and Practice." University of Warwick, Coventry, UK. *The HRD Partnership*, 1992.

Lundberg, C.C. "Learning in and by Organizations: Three Conceptual Issues." *The International Journal of Organizational Analysis*. Vol. 3, No. 1, (1995): 10-23.

Nonaka, I. "The Knowledge-Creating Company." *Harvard Business Review*. Nov – December, 1991.

Schwandt, D.R. "Organizational Learning: A Dynamic Integrative Construct." *Unpublished Manuscript.* The George Washington University Executive Leadership in Human Resource Development Programme, Washington, DC: 1993.

Senge, P.M. "The Fifth Discipline: The Art and Practice of the Learning Organization." *Doubleday.* New York, NY: 1990.

Senge, P., A. Kleiner, et al. *The Fifth Discipline Field Book: Strategies and Tools for building a Learning Organization*. New York: Doubleday, 1994.

Tsang, E.W.K. "Organizational Learning and the Learning Organization: A Dichotomy between Descriptive and Prescriptive Research." *Human Relations*. Vol. 50, No. 1, (1997): 73-89.

Watkins, K.E. and V.J. Marsick. Sculpting the Learning Organization: Lessons in the Art and Science of Systemic Change, Jossey-Bass, San Francisco, CA: 1993.

Watkins, K. E. and V. J. Marsick. "In action: Creating The Learning Organization." *Alexandria, VA: American Society for Training and Development.* 1996.

Website:

<http://www.ourfuture.com/arts02.htm>

<http://www.infed.org/biblio/learning-organization.htm> <www.HP.com>

Financial Risk: Impact on Debt-Equity Mix

Jothi Krishnasami

Abstract

The research paper deals with econometric analysis of financial risk on debt fund on debt - equity mix, that is, capital structure decisions. It reflects the incidence of fixed financial costs: interest, lease rent and so on and their effect on the fluctuation of income that flows to investors. When fixed financial costs, that is, the interest associated with the use of financial leverage, are introduced, the fluctuation of earnings available to shareholders is greater than that of operating earnings. There are six sample industries taken for present research work. The variables used in work are: profitability, size of the business, tangibility, non-debt tax shields, growth opportunity, agency cost, income variability and other financial risk variables.

Key words:

Financial risk, debt equity mix, financial leverage, causality, return on equity, capital structure, regression models.

Dr. Jothi Krishnasami, Faculty of Commerce, Karpagam University, Pollachi Main Road, Eachanari (Post), Coimbatore – 641021, Tamil Nadu, India, Email: jothi krishnasamy@ yahoo.co.in

Financial leverage measures the fluctuation of earnings available to the common shareholders relative to the fluctuation of operating earnings. The higher degree of financial leverage (DFL) indicates existence of more risk for company's equity investors, because, there is a greater possibility that they will receive lower cash flows both at present and in the future. As financial risk reflects the incidence of fixed cost components which comprises lease rent, dividends payable to preferred stock holders in addition to interest on debt in capital structure, using DFL is more appropriate as proxy for financial risk because all the above fixed financial cost are inherent in DFL. That is, DFL not only incorporates interest charges but also, other fixed financial costs. In this scenario, here an attempt is made to evaluate the capital structure that is share of debt and equity by groups of firm with different levels of financial risk under each sector as well as all sectors.

Specific Objectives of the Present Research

The main objective of the present research is to analyse the impact of financial risk on debt – equity mix. To achieve

this objective the following sub-objectives have been designed:

1. To evaluate the background of financial risk on debt equity mix,
2. To analyse the impact of financial risk on debt equity mix decisions of selected industries, and
3. To offer major findings, concrete suggestions for solving the problems and enhance the debt equity mix decisions of the selected industries.

Literature Review

Gabriel and Baker (1980) developed a conceptual framework for linking production and investment decisions to the financing decision via risk constraint. Financial risk is defined as the added variability of net cash flows of the owners' equity that result from the fixed financial obligations associated with debt financing and cash leasing. Kim and Sorensen (1986) tested whether the cross- sectional variation in corporate leverage ratio can be related to agency costs. This study suggests that large firms who are heavily owned by insider tend to finance projects with greater amount of long term debt.

Friend and Hasbrouck (1988) investigated whether there is a systematic relationship between insider (managers) holding and debt. They suggested that, the reverse causality may also occur. A high level of debt increases the risk of firms stock and tends to drive out outside shareholders. Garvey and Hanka (1997) assess the impact of a possibility of takeover on the firm's capital structure decision. They concluded that firms which are facing a threat of takeover from rival firms opt for a capital structure with high leverage of debt.

Sharma, Thenmozhi and Preethi (2003) found that firms using non-traditional debt have higher leverage and presence of non-traditional debt has a positive influence on financial leverage. Lisa Koonce, McAnally and Mercer, (2005) have proposed and tested a risk model that explained how investors perceive financial risks. By identifying the unintended consequence of current risk disclosures, these results have the potential to influence the way accounting regulators, firm managers and academic researchers to think about risk disclosure.

Research Methodology and Sample

It is the arrangement of condition and analysis of data in a manner that aims to combine reference to the research purpose with economy in procedure. It is the conceptual structure within which the research is conducted. The present study covers the period of 10 years, that is, from 1999-2000 to 2008-09 more specifically the period subsequent to the initiation of liberalization measures.

The data used in this study are the financial statements of sixty companies – ten each from Cement, Food, Pharmaceutical, Steel, Textile and from Information Technology for the years from 1999-2000 to 2008-09. For the present study, data were collected through the secondary sources. The sample industries were selected from the Centre for Monitoring Indian Economy (CMIE), and PROWESS Data Base software. Companies were selected using stratified random sampling followed by simple random sampling technique.

The data used in the present study are of time series in nature, the statistical tools used for analyzing them varies from general descriptive analysis such as Mean, Standard Deviation, Coefficient of Variation, Compound Growth Rate to Linear Growth Rate. Also, Parametric t-test for ascertaining the level of significance of both compound and linear growth rates and one way analysis of variance, simply called F-test for comparing.

Impact of Financial Risk on Debt Fund

To begin with, selected companies under each sector are segmented into three mutually exclusive groups based on low, moderate and high financial leverage. Companies with financial leverage ratio value of 30^{th} percentile and below is considered as low group, between 30^{th} and 70^{th} percentile as moderate financial risk group and the companies with financial leverage ratio equal to and above 70^{th} percentile are treated as high financial risk group. Significance of the difference in debt level across groups is tested with one ANOVA (F test).

Financial leverage, interest rate risk and coefficient of variation in return on equity were used as measures of financial risk. Financial leverage (FL) and coefficient of variation in return on equity (CVROE) reflects the financial risk of a firm in the preceding years (FL is percent change in EPS relative to percent change in EBIT and CVROE is calculated as standard

deviation divided by mean based on three years data). So, any decision selection of capital between debt and equity would obviously be based on these measures. So, in this study, an attempt is made to identify the impact of financial risk on debt financing in capital structure through long-term debt by firms across cement, food, pharmaceutical, information-technology, steel and textile sectors in India. For analysing the impact, multiple regression statistical technique was used.

Three measures were used as proxy for capital structure. Three measures are long-term debt (LTDTA), short-term debt (STDTA) and total debt (TDTA) relative to total assets. The reasons for choosing three leverage measures are: (1) various capital structure theories have not specified explicitly which leverage measurements should be used; (2) for consistency purpose most empirical studies have used these leverage measures.

Three regression models, two reduced models and one full model were run for each debt measures. The Chow-test was used to test significant difference in R^2 values between first reduced model and full model in order to know the extent of collective influence of financial risk variables on debt financing after controlling for basic determinants (control variables) of capital structure. The specification of models is given below:

Reduced Model 1:

$$y = \alpha + \beta_1 Prof + \beta_2 Size + \beta_3 Tang + \beta_4 NDTS + \beta_5 GrowOpp + \beta_6 AgCost + \beta_7 IncVar + \varepsilon$$

Where,

Y = Dependent Debt variables (Long-Term Debt to Total Assets, Short-Term Debt to Total Assets, Total Debt to Total Assets)

Prof = Profitability (measured as natural logarithm of profit before tax scaled by net sales)

Size = Size of the firm (measured as Natural logarithm of Total assets)

Tang = Tangibility (ratio of fixed assets to total assets)

NDTS = Non-debt tax shield (depreciation to total assets)

GrowOpp = Growth opportunity (ratio of market value of assets to book value of assets)

AgCost = Agency Cost (asset turnover ratio, measured as net sales to total assets, is used as proxy for agency cost)

IncVar = Income variability (an indicator of operating risk, measured as standard deviation of EBIT – earning before interest and tax)

ε = Error term

Reduced Model 2:

$$y = \alpha + \beta_1 MFR + \beta_2 HFR + \beta_3 FINLVR + \beta_4 IR + \beta_5 CVROE + \beta_6 MFRxFINLVR + \beta_7 MFRxIR + \beta_8 MFRxCVROE + \beta_9 HFRxFINLVR + \beta_{10} HFRxIR + \beta_{11} HFRxCVROE + \varepsilon$$

Where,

Y = As above

MFR = Dummy variable for Medium Financial Risk (1 for Medium Risk and 0 for others)

HFR = Dummy variable for High Financial Risk (1 for High Risk and 0 for others)

FINLVR = Percentage change in EPS / percentage change in EBIT

IR = Interest risk – [EBIT / (EBIT – I)]

CVROE = Coefficient of Variation in Return on Equity

MFR x FINLVR = Interaction between MFR and FINLVR

MFR x IR = Interaction between MFR and IR

MFR x CVROE = Interaction between MFR and CVROE

HFR x FINLVR = Interaction between HFR and FINLVR

HFR x IR = Interaction between HFR and IR

Table I: Regression Showing the Effect of Financial Risk on Debt Fund in Capital Relative to Total Assets of Firms under Cement Sector

Explanatory Variables	LTDTA			STDTA			TDTA		
	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model
Intercept	1.430***	0.491***	1.293***	-0.228*	0.130***	-0.298**	1.202***	0.621***	0.995***
	(6.37)	(10.83)	(5.48)	-(1.69)	(5.75)	-(2.01)	(5.71)	(13.64)	(4.45)
Profitability	-0.545***		-0.522***	0.234***		0.277***	-0.311***		-0.245**
	-(5.02)		-(3.98)	(3.58)		(3.36)	-(3.05)		-(1.97)
Size	-0.120***		-0.109***	0.010		0.014	-0.109***		-0.095***
	-(5.32)		-(4.66)	(0.75)		(0.97)	-(5.19)		-(4.27)
Tangibility	0.021		0.101	0.134*		0.172**	0.155		0.274**
	(0.16)		(0.77)	(1.71)		(2.08)	(1.27)		(2.19)
Non-debt Tax Shield	-2.527***		-2.139***	-0.219		-0.243	-2.746***		-2.382***
	-(3.57)		-(3.06)	-(0.51)		-(0.55)	-(4.13)		-(3.59)
Growth Opportunity	0.077		0.043	0.153***		0.161***	0.231***		0.204**
	(0.87)		(0.49)	(2.87)		(2.91)	(2.77)		(2.44)
Agency Cost	-0.085**		-0.074	-0.009		-0.012	-0.094**		-0.086**
	-(1.96)		-(1.64)	-(0.36)		-(0.42)	-(2.32)		-(2.00)
Income Variability	0.523		-0.435	1.119***		1.687***	1.642***		1.252*
	(0.99)		-(0.60)	(3.52)		(3.71)	(3.31)		(1.83)
Medium Financial Risk (MFR)		0.237***	0.120**		-0.073**	-0.018		0.164**	0.102**
		(3.46)	(2.43)		-(2.14)	-(0.57)		(2.39)	(2.19)
High Financial Risk (HFR)		-0.028	-0.010		-0.001	0.021		-0.029	0.011
		-(0.36)	-(0.19)		-(0.04)	(0.65)		-(0.38)	(0.23)
Financial Leverage (FL)		-0.001	0.000		0.000	0.000		-0.001	-0.001
		-(0.87)	-(0.34)		(0.52)	-(0.63)		-(0.61)	-(0.78)
Interest Risk (IR)		0.001	0.001		0.000	-0.001		0.001	-0.001
		(0.27)	(0.36)		-(0.24)	-(0.95)		(0.15)	-(0.25)
CV in ROE (CVROE)		0.002**	0.002**		0.001	-0.001*		0.003***	0.001
		(2.43)	(2.26)		(1.32)	-(1.79)		(3.07)	(1.19)
MFR x FL		-0.184**	-0.044		0.043	-0.047		-0.141**	-0.092**
		-(2.95)	-(0.91)		(1.37)	-(1.54)		-(2.26)	-(1.98)
MFR x IR		-0.003	0.004		0.026***	0.014*		0.023	0.018
		-(0.14)	(0.35)		(2.76)	(1.72)		(1.23)	(1.50)
MFR x CVROE		-0.018	-0.005		-0.009	0.004		-0.027**	-0.001
		-(1.47)	-(0.50)		-(1.49)	(0.65)		-(2.21)	-(0.10)
HFR x FL		0.004	0.002		-0.002	-0.001		0.003	0.000
		(0.77)	(0.45)		-(0.58)	-(0.62)		(0.48)	(0.06)
HFR x IR		-0.009	-0.009*		0.002	0.000		-0.007	-0.009*
		-(1.22)	-(1.80)		(0.53)	(0.09)		-(0.95)	-(1.83)
HFR x CVROE		-0.016	-0.004		0.010	0.003		-0.007	-0.001
		-(0.72)	-(0.24)		(0.87)	(0.29)		-(0.29)	-(0.06)
R^2	0.6746	0.3375	0.7540	0.4193	0.1889	0.5205	0.7121	0.3286	0.7774
Adjusted R^2	0.6430	0.2304	0.6814	0.3629	0.0577	0.3790	0.6841	0.2200	0.7118
F Value	21.32***	3.15***	10.39***	7.43***	1.44 NS	3.68***	25.44***	3.02***	11.84***
DF for Models	7,72	11,68	18,61	7,72	11,68	18,61	7,72	11,68	18,61
ΔR^2	0.0794			0.1012			0.0653		
Chow Test 'F'	1.79*			1.17 NS			1.63 NS		
DF for Chow 'F'	11,61			11,61			11,61		

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level.

Figures in brackets are 't' values for estimated coefficients. NS – Not significant

HFR x CVROE = Interaction between HFR and CVROE

ε = Error term.

Full Model:

$$y = \alpha + \beta_1 Prof + \beta_2 Size + \beta_3 Tang + \beta_4 NDTS + \beta_5 GrowOpp + \beta_6 AgCost + \beta_7 IncVar + \beta_1 MFR + \beta_2 HFR + \beta_3 FINLVR + \beta_4 IR + \beta_5 CVROE + \beta_6 MFRxFINLVR + \beta_7 MFRxIR + \beta_8 MFRxCVROE$$

The results of the regression analysis of restricted models revealing the effect of control and financial risk variables on debt financing, and results of full model showing the unique impact of financial risk variables after partialling out the effect of control variables on debt financing for group of firms under each six selected sector as well as for firms under all sectors are depicted from Tables I to VII (List Enclosed–Annexure– I).

Table I reports the results of three regression models for long-term debt, short-term debt and total debt. By using reduced model 1, in which the effect of financial risk is set to zero, the regression coefficients of the control variables on LTD, STD and TD were estimated. Using reduced model 2, the regression of debt financing relative to total assets on financial risk variables after setting effect of control variables to zero was estimated. By using full model the effect of financial risk variables on debt financing in the presence of control variables were examined.

The significant intercept term ($\alpha = 0.491$, $t = 10.83$, $p < 0.01$) and coefficient of MFR ($\beta = 0.237$, $t = 3.46$, $p < 0.01$) in reduced model 2 indicate that, long-term debt fund in capital is significantly higher for firms with low and medium financial risk compared to high risk firms and between low and medium risk firms, it is significantly higher for medium risk firms, holding all else constant (after partialling out the effect of FL, interest risk and CVROE). Further, the coefficients of financial leverage and interest risk are negative but insignificant, indicating that these two financial risk factors do not have any effect on long-term debt fund in capital of firms with low financial risk. But, the coefficient of CVROE (β=0.002, $t = 2.43$, $p < 0.05$) is significant and positive.

This shows that increase in volatility of net income relative to equity increases the portion of long-term debt in capital structure of firms with low financial risk.

From the estimation of the full model, it is apparent that, there has been increase in the overall explanatory power ($R^2 = 0.7540$) when compared to that of the reduced model 1. This significant F value from Chow test between full model and reduced model 1 indicates that, financial risk variables could significantly explain 7.94 percent more variation in long-debt financing in addition to control variables. But, from the estimated coefficient of MFR dummy, it is understood that, the explanatory power of this dummy variables has decreased in the presence of control variables.

Regarding proportion of short-term fund in capital structure for firms under cement sector, it is significantly lower for medium risk firms compared to low and high risk firms (β =0.073, $t = -2.14$, $p < 0.05$ for MFR). Further, interest risk has positive significant effect on STDTA for firms with medium financial risk. Also, the financial risk variables together could explain 18.89 percent of the variation in STDTA when the effects of control variables are set to zero. From the observation of the beta coefficients of the full model, it can be seen that coefficients of MFR become insignificant and that of CVROE (β =0.001, $t = -1.79$, $p < 0.10$) and MFR x IR (β =0.014, $t = 1.72$, $p < 0.10$) is significant with negative and positive sign respectively in the presence of control variables.

For total debt, from results of reduced model 1, it is clear that, all control variables have explanatory power and together explaining 71.21 percent of the variation in total debt. Further, in the absence of control variables, the financial risk factors could determine the variation in TD to the extent of 32.86 percent. However, control variables have eliminated the explanatory power CVROE and MFR x CVROE (beta coefficients become insignificant in full model). Only MFR and MFR x FL have unique impact on TD in addition to HFR x IR in the presence of control variables. This shows that change in financial risk from low to medium increases use of debt fund, all else held constant. Also, the decline in the degree financial leverage increase the debt in capital structure of firms with medium financial risk whereas for firms with high financial risk, increase in decline in interest liability increases the debt in capital structure after controlling the effect of some basic control variables.

Table II: Regression Showing the Effect of Financial Risk on

Debt Fund in Capital Relative to Total Assets of Firms under Food Sector

Explanatory Variables	LTDTA			STDTA			TDTA		
	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model
Intercept	0.825***	0.407***	0.613***	0.101	0.082***	0.100	0.926***	0.490***	0.713***
	(3.72)	(7.24)	(3.21)	(1.02)	(4.11)	(1.02)	(3.69)	(7.75)	(3.27)
Profitability	-1.762***		-2.451**	-0.398		0.011	-2.159***		-2.439***
	-(3.16)		-(4.10)	-(1.60)		(0.04)	-(3.42)		-(3.58)
Size	-0.111***		-0.035	0.003		0.001	-0.108**		-0.034
	-(3.04)		-(1.03)	(0.21)		(0.04)	-(2.60)		-(0.89)
Tangibility	0.030		0.135	-0.028		0.037	0.001		0.172
	(0.26)		(1.34)	-(0.57)		(0.73)	(0.01)		(1.50)
Non-debt Tax Shield	-0.291		-2.086**	-0.808*		-1.310***	-1.099		-3.396***
	-(0.29)		-(2.17)	-(1.80)		-(2.66)	-(0.96)		-(3.10)
Growth Opportunity	-0.015*		-0.017**	-0.001		-0.001	-0.016		-0.018**
	-(1.66)		-(2.12)	-(0.16)		-(0.37)	-(1.52)		-(2.02)
Agency Cost	0.034**		0.021	0.001		0.003	0.036**		0.024
	(2.44)		(1.53)	(0.22)		(0.40)	(2.24)		(1.52)
Income Variability	1.444**		2.473***	0.586**		0.548*	2.030***		3.021***
	(2.64)		(4.14)	(2.40)		(1.79)	(3.27)		(4.44)
Medium Financial Risk (MFR)		-0.122	0.155		-0.049	-0.013		-0.171	0.142
		-(0.50)	(0.88)		-(0.56)	-(0.14)		-(0.62)	(0.70)
High Financial Risk (HFR)		-0.109	-0.085		-0.021	-0.029		-0.129	-0.114
		-(1.33)	-(1.39)		-(0.71)	-(0.93)		-(1.41)	-(1.63)
Financial Leverage (FL)		0.016	0.032		-0.047***	-0.045***		-0.031	-0.013
		(0.36)	(1.02)		-(2.99)	-(2.83)		-(0.63)	-(0.38)
Interest Rate Risk (IR)		-0.072*	-0.079***		-0.002	-0.001		-0.074	-0.080**
		-(1.68)	-(2.72)		-(0.13)	-(0.07)		-(1.54)	-(2.41)
CV in ROE (CVROE)		-0.349**	-0.095		0.008	0.009		-0.340**	-0.086
		-(2.25)	-(0.86)		(0.15)	(0.16)		-(1.96)	-(0.68)
MFR x FL		-0.156	-0.150		0.022	0.010		-0.134	-0.140
		-(0.83)	-(1.13)		(0.32)	(0.15)		-(0.64)	-(0.92)
MFR x IR		0.076*	0.072**		0.004	0.003		0.080	0.075**
		(1.68)	(2.37)		(0.27)	(0.18)		(1.58)	(2.16)
MFR x CVROE		0.446**	-0.222		0.086	0.023		0.532***	-0.198
		(2.47)	-(1.50)		(1.34)	(0.31)		(2.63)	-(1.18)
HFR x FL		-0.016	-0.031		0.047***	0.0455***		0.031	0.015
		-(0.35)	-(0.99)		(2.98)	(2.86)		(0.63)	(0.41)
HFR x IR		0.074*	0.079***		0.001	0.001		0.076	0.080**
		(1.72)	(2.70)		(0.09)	(0.04)		(1.56)	(2.38)
HFR x CVROE		0.188	-0.121		-0.021	-0.050		0.167	-0.171
		(1.08)	-(0.97)		-(0.33)	-(0.78)		(0.86)	-(1.20)
R^2	0.5574	0.3799	0.7487	0.2106	0.2929	0.4048	0.5634	0.3995	0.7490
Adjusted R^2	0.5143	0.2796	0.6745	0.1339	0.1785	0.2292	0.5210	0.3024	0.6750
F Value	12.95***	3.79***	10.09***	2.74**	2.56***	2.31***	13.27***	4.11***	10.11***
DF for Models	7,72	11,68	18,61	7,72	11,68	18,61	7,72	11,68	18,61
ΔR^2	0.1913			0.1942			0.1856		
Chow Test 'F'	4.22***			1.81*			4.10***		
DF for Chow 'F'	11,61			11,61			11,61		

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level.
Figures in brackets are 't' values for estimated coefficients. NS – Not significant

In Table II, regression results with respect to debt financing in capital structure relative to total assets for firms under food sector are presented. Reduced model 1 with control variables is significantly fitted with 55.74 percent of the explained variance. Reduced model 2 with financial risk variables is also fitted significantly explaining 37.99 percent of the variation in long-term debt fund. In the absence of control variables, interest risk (β =0.072, t = -1.68, p < 0.10) and volatility in ROE (β =0.349, t = -2.25, p < 0.05) have significant negative effect.

The coefficient of interaction variables, MFR x IR (β = 0.076, t = 1.68, p < 0.10) and MFR x CVROE (β =0.446, t = 2.47, p < 0.05), which are significant with positive sign, evidence that long-term debt has increased with increase in interest risk as well as increase in volatility in ROE for firms with moderate financial risk. Similarly, the significant positive coefficient of HFR x IR (0.074, t = 1.72, p < 0.10) has indicated that there was an increase in debt financing through long-term debt for high financial risk firms when its interest risk increased. All the above relationships between financial risks and long-term debt were in the absence of control variables.

Further, financial risk variables together significantly explain 19.13 percent of variance (ΔR^2 = 0.1913, Chow F = 4.22, p < 0.01) in excess of the variance explained by the control variable in long-term debt. Hence, it is well found that debt financing in capital structure through long-term debt is significantly and negatively related to interest liability of the firms under food sector and the degree of negative relationship is higher when firms' overall financial risk is less.

For STDTA, all the three models are fitted significantly with 21.06 percent, 29.29 percent and 40.48 percent of the variance in STDTA explained by the explanatory variables in reduced model 1, model 2 and full model respectively. This shows that use of short-term debt in the business decreases and the level of decrease is same for medium risk firms whereas the decrease is lesser for firms with high financial risk (coefficient of HFR x FL is significant positive indicating upward shift in slope coefficient correspond to that of reference category, low risk groups) when compared to firm groups with low financial risk under food sector.

From the estimated coefficient of full model, it is clear that, the explanatory power of FL (β=0.045, t = -2.83, p < 0.01) and HFR x FL (β=0.0455, t = 2.86, p < 0.01) is significant with same negative and positive sign in the presence of control variables respectively. Further, there is significant increase in coefficient of determination to the extent of 19.42 percent (ΔR^2 = 0.1942, Chow F = 1.81, p < 0.10) due to factors associated with financial risk in addition to coefficient of determination in reduced model 1. Hence, it is well established that financial risk factors have negative influence on use of short-term debt fund at mentionable level for firms under food sector and decrease in short debt fund is higher for low and medium risk firms and lesser for firms with high financial risk under this sector.

The results of reduced model 2 for total debt with control variables show that CVROE (β=0.340, t = -1.96, p < 0.05) has significant negative coefficient and interaction variable, MFR x CVROE (β=0.532, t = 2.63, p < 0.10) has significant positive coefficient for total debt of firms under food sector. This evidences that, increase in volatility in ROE decrease the debt fund for firms with low financial risk whereas, the debt fund increases with increase in volatility in ROCE for firms with medium risks while the relationship between the above independent and dependent factors for high risk firms is similar to that of low risk groups. By applying full model, in which both control and financial risk variables are included, it is found that, the coefficient of IR

(β=0.080, t = -2.41, p < 0.05) is significant with negative sign while the coefficients of MFR x IR (β=0.075, t = 2.16, p < 0.05) and HFR x IR (β=0.080, t = 2.38, p < 0.05) are significant positive. However, the significant effect of CVROE for low and medium firms, which is found in the stand alone model for financial risk variables (reduced model 2), has disappeared in the presence in control variables in full model. The significant coefficients of IR and its cross terms with medium and high financial risk has evidenced that, debt fund has increased for low financial risk firms and there has been significant difference in slope coefficients of interest risk on total debt across firms with different level of financial risk. Therefore, from the overall interpretation, it is found that, financial risk in terms of interest liability has significant impact on debt financing and there has been significant difference in the explanatory power across firms with different levels of financial risk under food sector.

In Table III, various test results with respect to effect of financial risk on debt financing in capital structure through

Table III: Regression Showing the Effect of Financial Risk on Debt Fund in Capital Relative to Total Assets of Firms under Pharmaceutical Sector

Explanatory Variables	LTDTA			STDTA			TDTA		
	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model
Intercept	0.246	-0.162	-0.105	0.174**	0.082**	0.148	0.420**	-0.080	0.043
	(1.49)	-(1.51)	-(0.46)	(2.36)	(2.19)	(1.56)	(2.38)	-(0.69)	(0.18)
Profitability	-1.234***		-0.554	-0.447***		-0.402**	-1.681***		-0.956**
	-(4.22)		-(1.43)	-(3.45)		-(2.50)	-(5.41)		-(2.33)
Size	0.004		0.002	0.006		0.011	0.009		0.013
	(0.20)		(0.11)	(0.68)		(1.32)	(0.47)		(0.62)
Tangibility	0.803***		0.628***	-0.052		-0.080	0.751***		0.548***
	(5.54)		(4.05)	-(0.81)		-(1.24)	(4.86)		(3.34)
Non-debt Tax Shield	-3.567**		-3.984**	-1.749**		-1.550**	-5.316***		-5.535***
	-(2.26)		-(2.46)	-(2.49)		-(2.30)	-(3.16)		-(3.22)
Growth Opportunity	-0.003		-0.012	-0.005		-0.006	-0.008		-0.017*
	-(0.40)		-(1.35)	-(1.33)		-(1.58)	-(0.93)		-(1.89)
Agency Cost	-0.037		0.047	-0.004		0.009	-0.040		0.055
	-(0.90)		(0.89)	-(0.21)		(0.39)	-(0.93)		(0.99)
Income Variability	0.127		-0.287	0.208		0.351*	0.335		0.065
	(0.33)		-(0.58)	(1.22)		(1.70)	(0.82)		(0.12)
Medium Financial Risk (MFR)		0.253	0.239*		-0.019	0.008		0.234	0.248*
		(1.56)	(1.93)		-(0.34)	(0.16)		(1.32)	(1.88)
High Financial Risk (HFR)		-0.055	0.040		-0.094**	-0.078*		-0.150	-0.038
		-(0.40)	(0.37)		-(1.97)	-(1.75)		-(1.00)	-(0.34)
Financial Leverage (FL)		-0.006	-0.003		0.001	0.001		-0.004	-0.002
		-(1.64)	-(1.05)		(1.18)	(0.92)		-(1.12)	-(0.63)
Interest Rate Risk (IR)		0.282***	0.174***		0.004	-0.002		0.286***	0.172***
		(5.38)	(3.50)		(0.24)	-(0.10)		(4.99)	(3.26)
CV in ROE (CVROE)		0.037	0.112		-0.055	-0.069		-0.018	0.043
		(0.25)	(0.95)		-(1.09)	-(1.40)		-(0.11)	(0.34)
MFR x FL		-0.132	-0.070		-0.087**	-0.085**		-0.219*	-0.156
		-(1.13)	-(0.76)		-(2.13)	-(2.21)		-(1.71)	-(1.58)
MFR x IR		-0.046	-0.111*		0.098***	0.089***		0.051	-0.021
		-(0.59)	-(1.81)		(3.56)	(3.52)		(0.60)	-(0.33)
MFR x CVROE		-0.256	-0.058		-0.033	-0.092		-0.289	-0.149
		-(1.19)	-(0.33)		-(0.45)	-(1.26)		-(1.23)	-(0.80)
HFR x FL		0.022**	0.012		0.002	0.0003		0.024**	0.012
		(2.15)	(1.40)		(0.56)	(0.11)		(2.14)	(1.37)
HFR x IR		-0.011	-0.037		0.018	0.018		0.007	-0.019
		-(0.16)	-(0.70)		(0.75)	(0.82)		(0.09)	-(0.34)
HFR x CVROE		0.009	-0.065		0.093	0.077		0.103	0.013
		(0.05)	-(0.47)		(1.50)	(1.35)		(0.52)	(0.09)
R^2	0.7351	0.6032	0.7973	0.3053	0.3573	0.5349	0.7569	0.6145	0.8154
Adjusted R^2	0.7094	0.5391	0.7375	0.2378	0.2534	0.3976	0.7332	0.5521	0.7610
F Value	28.55***	9.40***	13.33***	4.52***	3.44***	3.90***	32.02***	3.95***	14.97***
DF for Models	7,72	11,68	18,61	7,72	11,68	18,61	7,72	11,68	18,61
ΔR^2	0.0622			0.2296			0.0585		
Chow Test 'F'	1.70*			2.74***			1.76*		
DF for Chow 'F'	11,61			11,61			11,61		

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level.
Figures in brackets are 't' values for estimated coefficients. NS – Not significant

long-term debt using three difference regression models are reported. Reduced model 1 for LTDTA, STDTA and TDTA has revealed the explanatory power of control variables. Regarding the effect of financial risk variables in the absence of control variables on dependent debt variables relative to total assets, reduced model 2 for LTDTA, STDTA and TDTA are all fitted significantly with explained variance, 60.32 percent, 35.73 percent and 61.45 percent respectively. This has revealed that, various factors associated with financial risk play a vital role in determining the status of debt financial in capital structure of firms under pharmaceutical sector.

In the presence of control variables also, the explanatory power of financial risk is found to be significant for long-term debt ($\Delta R^2 = 0.0622$, Chow F = 1.70, $p < 0.10$), short term debt ($\Delta R^2 = 0.2296$, Chow F = 2.74, $p < 0.01$) and total debt ($\Delta R^2 = 0.0585$, Chow F = 1.76, $p < 0.10$) in capital structure. Explanatory power of financial risk is very high on debt financing through short-term debt. From the individual coefficients of financial risk variables in full model for LTDTA, it is found that the coefficients of MFR dummy (β=0.239, t = 1.93, $p < 0.10$) and IR (0.174, t = 3.50, $p < 0.01$) is significant positive while that of interaction variable, MFR x IR (β=0.111, t = -1.81, $p < 0.10$) is significant negative.

Regarding short-term debt financing, the estimated coefficients in the full model has exhibited that intercept for high financial risk firms is significantly lesser when compared to the intercept of low and medium risk firm (intercept term is positive and the coefficient of MFR dummy is also positive but that of HFR dummy only is significant with negative sign). This shows that the portion of short-term debt in capital structure is significantly less than that of low and medium risk firms. The significant coefficient of interaction variable, MFR x FL (β=0.085, t = -2.21, $p < 0.05$) and MFR x IR (β= 0.089, t = 3.52, $p < 0.01$) further evidences that, there is significant increase in short-term debt with decline in degree of financial leverage and increase in fixed cost of debt (interest risk) for only medium financial risk firms under pharmaceutical sector.

As far as the total debt in capital structure is concerned, significant estimated coefficients in the full model for MFR dummy (0.248, t = 1.88, $p < 0.10$) and IR (β= 0.172, t = 3.26, $p < 0.01$), which are positive in sign, have hinted that, debt financing in capital structure is significantly higher among medium financial risk firms when compared to firms with low and high financial risk whereas it is significantly and positively influenced by interest risk in the case of firms with low financial risk. So, from the overall interpretation, it is summed up as the interest risk, degree of financial leverage have significant influence on use of debt fund in capital structure of firms under pharmaceutical sector.

Table IV reports the result of regression based on reduced model 1, model 2 and full model for choice of debt in capital structure of information technology (IT) firms. Though all models for all debt variables are fit significantly, the difference in R^2 between reduced model 1 and full model is not significant for all debt variables (Chow F is insignificant for all), indicating that different factors associated with financial risk as one core dimension do not have any effect on determining the capital structure between debt and equity. But, from coefficients of individual explanatory variables, it can be stated that there is significant difference in use of long-term debt across firms with different levels financial risk (β= -0.544, t = -2.43, $p < 0.05$ for MFR dummy). Also interest riskβ= (0.092, t = 3.08, $p < 0.10$) as well as volatility in ROE (β=0.025, t = 1.96, $p < 0.05$) have positive significant influence on debt financing through long-term sources but the degree of impact in respect of interest risk differ across firms with different levels of financial risk (β=0.187, t = 2.88, $p < 0.01$ for MFR x IR) in the absence of control variables.

But in the presence of control variables, only interaction of IR (β= 0.123, t = 2.20, $p < 0.05$) and CVROE (β= 0.237, t = 1.70, $p < 0.10$) with MFR dummy has significant unique positive impact. That is the increase in interest risk along with increase in degree of inconsistency in ROCE has significantly increased the long-term debt in capital structure of firms with medium financial risk and the above positive relationship of long-term debt finance with interest risk as well as with volatility in ROE is significantly higher for medium risk firms when compared to that of those with low and high financial risk under IT sector.

In respect of short debt financing, only one financial risk variable, HFR dummy has significant and positive beta coefficient in stand alone model (reduced model 2). In the full model none-of the coefficients of financial risk variables is found to be significant. This implies that portion of short-term debt in capital structure of firms under IT sector is independent of the various factors associated with financial risk. Similarly, none of the beta coefficients of financial risk

Table IV: Regression Showing the Effect of Financial Risk on Debt Fund in Capital Relative to Total Assets of Firms under Information Technology (IT) Sector

Explanatory Variables	LTDTA			STDTA			TDTA		
	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model
Intercept	0.594***	0.037	0.558***	-0.113**	0.008	-0.076	0.481***	0.045	0.482***
	(5.47)	(0.70)	(3.46)	-(1.98)	(0.31)	-(0.90)	(4.44)	(0.74)	(2.85)
Profitability	-1.807***		-1.435***	0.019		-0.268	-1.788***		-1.703***
	-(5.18)		-(3.49)	(0.10)		-(1.24)	-(5.14)		-(3.96)
Size	-0.017		-0.018	0.005		0.007	-0.012		-0.012
	-(1.04)		-(1.08)	(0.54)		(0.75)	-(0.76)		-(0.65)
Tangibility	0.006		-0.027	0.019		0.042	0.025		0.015
	(0.04)		-(0.19)	(0.26)		(0.56)	(0.18)		(0.10)
Non-debt Tax Shield	0.815		1.217	0.418		0.077	1.232		1.294
	(1.05)		(1.56)	(1.03)		(0.19)	(1.60)		(1.58)
Growth Opportunity	0.000		-0.001	0.000		0.000	0.000		-0.001
	(0.07)		-(0.64)	-(0.05)		(0.52)	(0.04)		-(0.35)
Agency Cost	-0.082***		-0.064**	0.055***		0.034**	-0.027		-0.030
	-(4.10)		-(2.53)	(5.22)		(2.58)	-(1.35)		-(1.12)
Income Variability	0.588		0.167	-0.187		0.129	0.401		0.296
	(1.34)		(0.35)	-(0.81)		(0.52)	(0.92)		(0.59)
Medium Financial Risk (MFR)		-0.544**	-0.301		-0.075	0.107		-0.619**	-0.194
		-(2.43)	-(1.53)		-(0.65)	(1.04)		-(2.36)	-(0.94)
High Financial Risk (HFR)		0.083	-0.010		0.088**	0.052		0.171**	0.042
		(1.19)	-(0.17)		(2.43)	(1.63)		(2.09)	(0.66)
Financial Leverage (FL)		0.015	0.011		-0.004	-0.001		0.011	0.010
		(1.49)	(1.29)		-(0.82)	-(0.20)		(0.91)	(1.14)
Interest Rate Risk (IR)		0.092***	0.025		-0.004	-0.007		0.088**	0.018
		(3.08)	(0.88)		-(0.25)	-(0.48)		(2.52)	(0.60)
CV in ROE (CVROE)		0.025**	0.012		-0.004	-0.004		0.021	0.008
		(1.96)	(1.09)		-(0.61)	-(0.62)		(1.40)	(0.73)
MFR x FL		0.177	-0.014		0.131	0.000002		0.308	-0.014
		(1.02)	-(0.10)		(1.45)	(0.00)		(1.51)	-(0.09)
MFR x IR		0.187***	0.123**		0.000	-0.033		0.187**	0.091
		(2.88)	(2.20)		-(0.01)	-(1.11)		(2.45)	(1.54)
MFR x CVROE		0.099	0.237*		-0.081	-0.089		0.018	0.148
		(0.64)	(1.70)		-(1.01)	-(1.22)		(0.10)	(1.02)
HFR x FL		-0.015	-0.012		0.007	0.002		-0.008	-0.010
		-(1.49)	-(1.41)		(1.29)	(0.54)		-(0.70)	-(1.08)
HFR x IR		-0.053	-0.024		-0.011	-0.005		-0.063*	-0.029
		-(1.61)	-(0.86)		-(0.61)	-(0.37)		-(1.65)	-(1.00)
HFR x CVROE		-0.018	-0.012		0.002	0.001		-0.016	-0.011
		-(1.36)	-(1.12)		(0.28)	(0.25)		-(1.04)	-(0.94)
R^2	0.6415	0.5219	0.7216	0.4878	0.3316	0.6036	0.7154	0.4760	0.7566
Adjusted R^2	0.6023	0.4343	0.6271	0.4317	0.2090	0.4689	0.6843	0.3800	0.6739
F Value	16.36***	5.95***	7.63***	8.71***	2.71***	4.48***	22.98***	4.96***	9.15***
DF for Models	7,72	11,68	18,61	7,72	11,68	18,61	7,72	11,68	18,61
ΔR^2	0.0801			0.1158			0.0412		
Chow Test 'F'	1.39 NS			1.41 NS			0.82 NS		
DF for Chow 'F'	11,61			11,61			11,61		

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level.
Figures in brackets are 't' values for estimated coefficients. NS – Not significant

Table V: Regression Showing the Effect of Financial Risk on Debt Fund in Capital Relative to Total Assets of Firms under Steel Sector

Explanatory Variables	LTDTA			STDTA			TDTA		
	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model
Intercept	0.514**	0.556***	0.374	-0.276**	0.212***	-0.109	0.238	0.768***	0.266
	(2.35)	(10.77)	(1.50)	-(2.42)	(8.85)	-(0.90)	(1.23)	(15.85)	(1.27)
Profitability	-0.194***		-0.188**	-0.014		0.003	-0.209***		-0.185***
	-(2.79)		-(2.59)	-(0.39)		(0.08)	-(3.38)		-(3.06)
Size	-0.033		-0.027	0.037***		0.029***	0.003		0.002
	-(1.61)		-(1.18)	(3.39)		(2.67)	(0.18)		(0.13)
Tangibility	0.191		0.235	-0.120		-0.134	0.071		0.101
	(1.15)		(1.30)	-(1.38)		-(1.54)	(0.49)		(0.67)
Non-debt Tax Shield	0.705		1.167	2.267***		2.074**	2.973**		3.242**
	(0.43)		(0.68)	(2.67)		(2.52)	(2.07)		(2.28)
Growth Opportunity	0.282		0.257	0.086		0.059	0.368**		0.315
	(1.36)		(1.10)	(0.79)		(0.52)	(2.00)		(1.62)
Agency Cost	-0.127***		-0.104**	0.005		0.005	-0.123***		-0.099***
	-(3.23)		-(2.54)	(0.22)		(0.25)	-(3.52)		-(2.90)
Income Variability	-0.740		-0.719	0.064		0.178	-0.677		-0.541
	-(1.38)		-(1.21)	(0.23)		(0.62)	-(1.43)		-(1.09)
Medium Financial Risk (MFR)		-0.007	0.043		-0.141***	-0.107**		-0.148*	-0.064
		-(0.07)	(0.50)		-(3.18)	-(2.59)		-(1.65)	-(0.90)
High Financial Risk (HFR)		-0.103	0.008		-0.103**	-0.097**		-0.205**	-0.089
		-(1.22)	(0.10)		-(2.62)	-(2.59)		-(2.59)	-(1.38)
Financial Leverage (FL)		0.000	-0.001		0.000	0.000		0.000	-0.001
		-(0.44)	-(0.95)		(0.03)	-(0.15)		-(0.46)	-(1.23)
Interest Rate Risk (IR)		0.002	0.008		-0.009**	-0.007**		-0.007	0.001
		(0.23)	(1.13)		-(2.27)	-(2.00)		-(0.88)	(0.19)
CV in ROE (CVROE)		-0.042**	-0.029*		0.011	0.006		-0.031*	-0.022*
		-(2.31)	-(1.78)		(1.34)	(0.79)		-(1.79)	-(1.68)
MFR x FL		-0.043	-0.003		0.002	-0.002		-0.041	-0.005
		-(0.53)	-(0.04)		(0.05)	-(0.05)		-(0.54)	-(0.08)
MFR x IR		-0.002	-0.008		0.009**	0.008**		0.008	0.000
		-(0.22)	-(1.07)		(2.48)	(2.20)		(0.99)	-(0.01)
MFR x CVROE		-0.028	-0.016		-0.026	-0.024		-0.055	-0.041
		-(0.57)	-(0.37)		-(1.12)	-(1.14)		-(1.16)	-(1.11)
HFR x FL		0.002	0.002		0.000	0.000		0.002	0.002
		(1.14)	(1.18)		-(0.21)	(0.06)		(1.12)	(1.45)
HFR x IR		0.001	-0.005		0.012**	0.011**		0.013	0.005
		(0.10)	-(0.58)		(2.49)	(2.36)		(1.34)	(0.66)
HFR x CVROE		0.030	0.019		-0.014	-0.010		0.016	0.009
		(1.32)	(0.97)		-(1.31)	-(1.08)		(0.76)	(0.54)
R^2	0.3921	0.1816	0.4741	0.3392	0.2985	0.5147	0.5214	0.2733	0.6321
Adjusted R^2	0.3330	0.0192	0.3189	0.2749	0.1850	0.3715	0.4749	0.1558	0.5235
F Value	6.63***	1.37 NS	3.05***	5.28***	2.63***	3.59***	11.21***	2.32**	5.82***
DF for Models	7,72	11,68	18,61	7,72	11,68	18,61	7,72	11,68	18,61
ΔR^2	0.0820			0.1755			0.1107		
Chow Test 'F'	0.86 NS			2.01**			1.67*		
DF for Chow 'F'	11,61			11,61			11,61		

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level.
Figures in brackets are 't' values for estimated coefficients. NS – Not significant

variables in full model for TDTA is found to be significant statistically, hinting that choice of debt in capital structure for firms under IT sector is mainly based on profitability (inverse relationship, that is, increase in profitability, decrease in debt and vice versa) and not on any other factors.

Table V presents the test results by estimating the reduced model 1 and 2 and full model for proportion of debt fund in capital structure relative to total assets for firms under Steel sector. All the models except stand along model (reduced model 2) for LTDTA are fit significantly. The difference of explained variance in LTDTA between reduced model 1 and full model (ΔR^2 = 0.0820, Chow F = 0.86, p > 0.10) is insignificant. But, explained variance between control model and full model differ significantly at five percent level for STDTA (R^2 = 0.1755, Chow F = 2.01, p < 0.05) and 10 percent level for TDTA (R^2 = 0.1107, Chow F = 1.67, p < 0.10) respectively.

This shows that degree of financial leverage, interest risk and volatility in ROE have together played vital role in influencing the status of short-term as well as total debt but, not in respect of long-term debt for firms under steel sector.

From the observation of estimated coefficients in full model for STDTA, it is found that MFR dummy (β=0.107, t = -2.59, p < 0.05), HFR dummy (β=0.097, t = -2.59, p < 0.05) and IR (-0.007, t = -2.00, p < 0.05) is significant with negative sign while MFR x IR (β=0.008, t = 2.20, p < 0.05) and HFR x IR (β= 0.011, t = 2.36, p < 0.05) is significant with negative sign. This has revealed that short-term debt, which is significantly lower for medium and high financial risk firms when compared to that of low risk firms, has increased at mentionable level with decrease in interest risk when the firms financial risk is low but the increase in STD declines with increase in the level of financial risk in the presence of control variables for steel sector.

In respect of the total debt fund in capital structure, only coefficient of CVROE is significant at 10 percent level with negative sign in the presence of control and other financial risk variables (full model), providing the evidence that increase in degree of inconsistency in ROE decreases the proportion of total debt in capital structure relative to total assets for firms under steel sector. On the whole, it is predicted that, degree of financial leverage, interest risk and volatility in ROE has collective impact on determining the level of debt financing in capital structure of firms under steel structure.

In Table VI, regression test results for debt financing in capital structure for firms under textile sector are shown. According to the estimated values using reduced model 1, control variables have significant explanatory power on LTDTA, STDTA and TDTA to the extent of 39.96 percent, 60.23 percent and 40.57 percent respectively. From the estimated results using reduced model 2 for financial risk variables in the absence of control variables, it is evident that the coefficient of MFR dummy is significant and negative on LTDTA (β=0.157, t = -1.87, p < 0.10) and TDTA (β=0.145, t = -2.08, p < 0.05) while that of MFR x CVROE (0.150, t = 1.90, p < 0.10) and HFR x IR (β=0.012, t = 1.86, p < 0.10) is significant with positive sign on STDTA. Also, intercept term is significant in all the three regressions using reduced model 2.

The entire above table provides evidence that, use of debt financing is significantly higher for low risk firm when compared to that of those with medium and high financial risk. The results further evidence that increase in the level of inconsistency in ROE among firms with medium financial risk and increase in interest risk among firms with high financial risk has increased the borrowed funds through short-term sources under textile sector.

The estimated coefficients of full models show that, CVROE (-0.054,

t = -1.80, p < 0.10) on LTDTA, MFR x CVROE (β=0.134, t = 2.07, p < 0.05) and HFR x IR (β=0.013, t = 2.51, p < 0.05) on STDTA, and MFR dummy (β=0.127, t = 1.99, p < 0.05) on TDTA have significant impact in the presence of control and other financial risk variables. The difference in R^2 between reduced model 1 and full model is significant only for STDTA (ΔR^2 = 0.1561, Chow F = 3.58, p < 0.01), hinting that degree of financial leverage, interest risk and volatility in ROCE have collectively determined the variation in short term financing even in the presence of control variables. But, those financial risk variables do not have explanatory power on long-term debt and total debt in capital structure of firms under textile sector.

Table VII reports the regression results of LTDTA, STDTA and TDTA using reduced model 1, model 2 and full model for firms under all selected sectors. All the three reduced models

Table VI: Regression Showing the Effect of Financial Risk on Debt Fund in Capital Relative to Total Assets of Firms under Textile Sector

Explanatory Variables	LTDTA			STDTA			TDTA		
	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model
Intercept	-0.124	0.523***	-0.089	0.909***	0.059**	0.714***	0.785***	0.582***	0.625***
	-(0.55)	(11.79)	-(0.33)	(6.49)	(2.20)	(4.84)	(4.07)	(15.82)	(2.73)
Profitability	-1.196***		-1.183***	-0.570**		-0.345	-1.766***		-1.528***
	-(3.28)		-(2.81)	-(2.51)		-(1.52)	-(5.66)		-(4.34)
Size	0.079**		0.076**	-0.080***		-0.063***	-0.001		0.012
	(2.49)		(2.21)	-(4.06)		-(3.42)	-(0.04)		(0.43)
Tangibility	0.538***		0.596***	-0.479***		-0.403***	0.059		0.193
	(4.02)		(3.50)	-(5.76)		-(4.39)	(0.51)		(1.36)
Non-debt Tax Shield	-3.247***		-2.887***	2.287***		1.943***	-0.960		-0.944
	-(3.40)		-(2.88)	(3.85)		(3.59)	-(1.18)		-(1.13)
Growth Opportunity	0.145*		0.140*	-0.035		-0.009	0.109*		0.131**
	(1.90)		(1.79)	-(0.75)		-(0.21)	(1.68)		(2.01)
Agency Cost	0.045		0.011	-0.283***		-0.216***	-0.238***		-0.205***
	(0.83)		(0.17)	-(8.28)		-(5.96)	-(5.06)		-(3.65)
Income Variability	-1.815*		-1.260	1.484**		1.343**	-0.330		0.083
	-(1.78)		-(1.10)	(2.34)		(2.18)	-(0.38)		(0.09)
Medium Financial Risk (MFR)		-0.157*	-0.090		0.012	-0.037		-0.145**	-0.127**
		-(1.87)	-(1.18)		(0.24)	-(0.89)		-(2.08)	-(1.99)
High Financial Risk (HFR)		0.008	-0.020		-0.040	-0.039		-0.032	-0.060
		(0.13)	-(0.39)		-(1.12)	-(1.39)		-(0.66)	-(1.36)
Financial Leverage (FL)		0.001	0.001		-0.001	0.000		0.000	0.000
		(0.60)	(0.78)		-(1.03)	-(0.32)		-(0.03)	(0.73)
Interest Rate Risk (IR)		-0.004	-0.001		0.009	-0.002		0.004	-0.003
		-(0.42)	-(0.13)		(1.44)	-(0.42)		(0.54)	-(0.43)
CV in ROE (CVROE)		-0.005	-0.054*		-0.026	0.016		-0.031	-0.038
		-(0.17)	-(1.80)		-(1.33)	(0.98)		-(1.17)	-(1.52)
MFR x FL		0.062	0.068		-0.045	-0.023		0.016	0.045
		(1.21)	(1.53)		-(1.48)	-(0.96)		(0.39)	(1.22)
MFR x IR		0.015	-0.008		-0.009	-0.003		0.005	-0.012
		(0.80)	-(0.49)		-(0.85)	-(0.37)		(0.34)	-(0.82)
MFR x CVROE		-0.138	-0.079		0.150*	0.134**		0.011	0.056
		-(1.06)	-(0.65)		(1.90)	(2.07)		(0.10)	(0.56)
HFR x FL		0.003	0.001		0.001	0.002		0.004	0.003
		(0.79)	(0.28)		(0.56)	(1.12)		(1.37)	(1.06)
HFR x IR		-0.011	-0.005		0.012*	0.013**		0.002	0.008
		-(0.98)	-(0.51)		(1.86)	(2.51)		(0.17)	(1.01)
HFR x CVROE		-0.004	0.035		0.025	-0.009		0.021	0.026
		-(0.10)	(1.06)		(1.13)	-(0.52)		(0.70)	(0.93)
R^2	0.3996	0.2389	0.5155	0.6023	0.5241	0.7584	0.4057	0.2915	0.5424
Adjusted R^2	0.3413	0.1157	0.3725	0.5636	0.4472	0.6871	0.3479	0.1769	0.4074
F Value	6.85***	1.94**	3.61***	15.58***	6.81***	10.64***	7.02***	2.54***	4.02***
DF for Models	7,72	11,68	18,61	7,72	11,68	18,61	7,72	11,68	18,61
ΔR^2	0.1158			0.1561			0.1367		
Chow Test 'F'	1.33 NS			3.58***			1.66 NS		
DF for Chow 'F'	11,61			11,61			11,61		

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level.
Figures in brackets are 't' values for estimated coefficients. NS – Not significant

Table VII: Regression Showing the Effect of Financial Risk on Debt Fund in Capital Relative to Total Assets of Firms under All Selected Sectors

Explanatory Variables	LTDTA			STDTA			TDTA		
	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model	Reduced Model 1	Reduced Model 2	Full Model
Intercept	0.390***	0.386***	0.412***	-0.050*	0.099***	-0.033	0.340***	0.485***	0.379***
	(7.03)	(16.74)	(7.16)	-(1.84)	(11.18)	-(1.17)	(5.69)	(19.25)	(6.16)
Profitability	-0.519***		-0.479***	-0.028		-0.024	-0.547***		-0.503***
	-(9.98)		-(9.04)	-(1.11)		-(0.94)	-(9.75)		-(8.88)
Size	-0.010		-0.011	0.016***		0.016***	0.006		0.005
	-(1.33)		-(1.51)	(4.45)		(4.38)	(0.78)		(0.58)
Tangibility	0.423***		0.388***	0.077***		0.070***	0.499***		0.457***
	(9.11)		(8.33)	(3.40)		(3.07)	(9.98)		(9.19)
Non-debt Tax Shield	-1.848***		-1.522***	-0.108		-0.042	-1.956***		-1.564***
	-(4.25)		-(3.49)	-(0.51)		-(0.20)	-(4.17)		-(3.35)
Growth Opportunity	-0.006***		-0.006***	-0.003***		-0.003***	-0.009***		-0.009***
	-(2.75)		-(2.89)	-(3.19)		-(3.21)	-(3.99)		-(4.16)
Agency Cost	-0.026***		-0.024***	0.001		0.001	-0.025***		-0.023***
	-(3.33)		-(3.03)	(0.18)		(0.17)	-(3.01)		-(2.76)
Income Variability	-0.364*		-0.486**	0.135		0.156	-0.228		-0.330
	-(1.80)		-(2.36)	(1.38)		(1.56)	-(1.05)		-(1.50)
Medium Financial Risk (MFR)		0.121**	0.049		-0.020	-0.033*		0.102*	0.016
		(2.52)	(1.33)		-(1.06)	-(1.86)		(1.93)	(0.40)
High Financial Risk (HFR)		-0.017	-0.009		-0.021	-0.019		-0.038	-0.027
		-(0.50)	-(0.33)		-(1.58)	-(1.47)		-(1.01)	-(0.98)
Financial Leverage (FL)		-0.001*	-0.001		0.000	0.000		-0.001*	-0.001
		-(1.77)	-(1.25)		-(0.81)	-(0.44)		-(1.91)	-(1.37)
Interest Rate Risk (IR)		0.002	0.002		-0.002	-0.002		0.000	0.000
		(0.64)	(0.64)		-(1.39)	-(1.29)		(0.10)	(0.01)
CV in ROE (CVROE)		0.002**	0.002**		0.001*	0.001		0.003**	0.002***
		(2.14)	(2.32)		(1.72)	(1.40)		(2.56)	(2.81)
MFR x FL		-0.166***	-0.070**		-0.014	0.001		-0.180***	-0.069**
		-(4.33)	-(2.36)		-(0.92)	(0.08)		-(4.29)	-(2.17)
MFR x IR		-0.001	-0.001		0.003**	0.003*		0.002	0.002
		-(0.28)	-(0.26)		(2.01)	(1.76)		(0.45)	(0.56)
MFR x CVROE		-0.039***	-0.021**		-0.007	-0.005		-0.046***	-0.027**
		-(2.84)	-(2.02)		-(1.25)	-(1.03)		-(3.04)	-(2.36)
HFR x FL		0.002*	0.001		0.000	0.000		0.002**	0.001
		(1.80)	(1.04)		(0.97)	(0.47)		(1.99)	(1.18)
HFR x IR		-0.004	-0.004		0.005***	0.005***		0.002	0.001
		-(0.78)	-(1.21)		(2.87)	(2.91)		(0.30)	(0.19)
HFR x CVROE		-0.005	-0.005		-0.001	0.000		-0.006	-0.005
		-(1.00)	-(1.23)		-(0.51)	-(0.14)		-(1.09)	-(1.21)
R^2	0.4768	0.1091	0.5052	0.1161	0.0636	0.1640	0.4998	0.1270	0.5358
Adjusted R^2	0.4689	0.0878	0.4856	0.1027	0.0412	0.1308	0.4923	0.1061	0.5174
F Value	60.42***	5.12***	25.70***	8.70***	2.84***	4.94***	66.25***	6.08***	29.05***
DF for Models	7,464	11,460	18,453	7,464	11,460	18,453	7,464	11,460	18,453
ΔR^2	0.0284			0.0479			0.0378		
Chow Test 'F'	2.36***			2.36***			3.35***		
DF for Chow 'F'	11,453			11,453			11,453		

***Significant at 1% level. **Significant at 5% level. *Significant at 10% level.
Figures in brackets are 't' values for estimated coefficients. NS – Not significant

with only control variables (model 1) are fitted significantly explaining 47.68 percent, 11.61 percent and 49.98 percent of the variation in the respective dependent variable. The fit of the reduced model 2 for LTDTA, STDTA and TDTA is also significant with explained variance of 10.91 percent, 6.36 percent and 12.70 percent respectively.

The coefficients of the determination of the regression using full model with control and financial risk variables, 50.52 percent in LTDTA, 16.40 percent in STDTA and 53.58 percent in TDTA, are also significant. Further, difference in R^2 between reduced model 1 and full model, 2.84 percent, 4.79 percent and 3.78 percent for LTD, STD and TD relative to TA are also significant at required level (Chow Test Fs are significant). The statistical significance of the additional variance implies that all the three financial risk variables together have significant effect on debt financing in capital structure of firms under all selected sectors. Also, from the significant coefficients of CVROE (β=0.002, t = 2.32, $p < 0.05$), MFR x FL (β=0.070, t = -2.36, $p < 0.05$) and MFR x CVROE (β=0.021, t = -2.02, $p < 0.05$) on LTDTA, coefficients of MFR dummy (β=0.033, t = -1.86, $p < 0.10$), MFR x IR (β=0.003, t = 1.76, $p < 0.10$) and HFR x IR (β=0.005, t = 2.91, $p < 0.01$) on STDTA, and that of CVROE (β=0.002, t = 2.81, $p < 0.05$), MFR x FL (-0.069, t = -2.17, $p < 0.05$) and MFR x CVROE (-0.027, t = -2.36, $p < 0.05$) on TDTA are significant at required hypothetical level.

This shows that debt financing through long-term sources has increased significantly with increase in CVROE among low and medium risk firms and decrease in degree of FL among firms with medium risk firms under all sectors. The short-term debt, which differs significantly by level of financial risk (coefficient of MFR dummy is significant) across firms, is significantly and positively related to interest risk among medium and high financial risk firm under all sectors. Similarly, total debt in capital structure is affected negatively by CVROE among low risk firms and level of impact of CVROE on total debt differ significantly by level of financial (coefficient of cross term of CVROE and MFR dummy is significant) in the presence of control and other financial risk variables. Further, decrease in degree of FL among firms with medium financial risk increases the total debt financial in capital structure.

Major Findings of the Present Research

The following are the major findings of the research study:

- It is evident that use of debt fund is high among firms with low financial risk whereas it is less in respect of medium and high financial risk firms under food sector.
- The study interpreted that the firms with medium financial risk have used significantly less debt fund in their capital than use of debt fund by low and high financial risk firms under pharmaceutical sector. At the same time use of debt fund by high risk firms is marginally less than that of low risk firms, indicating that low risk pharmaceutical firms opt for more debt fund but maintain at one-third level (total fund).
- It is identified that proportion of debt fund relative to total assets is significantly affected by the financial risk whereas relative to net worth, use of debt financing is independent of the financial risk of the firms under steel sector.
- It is elicited that choice of debt in capital structure is significantly associated with levels of financial risk for firms under textile sector.
- It is found that proportion of debt fund provided by the long-term debt as well as by short-term debt is significantly related to the level of financial risk of the firms under Cement, Food, Pharmaceutical, Information technology, Steel and Textile sectors.
- It is found that, debt financing in capital structure through long-term debt is significantly and negatively related to interest liability of the firms under food sector and the degree of negative relationship is higher when firms' overall financial risk is less.
- It is envisaged that interest risk, degree of financial leverage have significant influence on use of debt fund in capital structure of firms under pharmaceutical sector.
- It is elicited that portion of short-term debt in capital structure of IT firms is independent of the various factors associated with financial risk.
- It has emerged that degree of financial leverage, interest risk and volatility in ROE has collective impact on determining the level of debt financing in capital structure of firms under steel sector.
- It is found out that factors associated with financial risk do not have significant role in determining the proportion of long-term debt relative to net worth of firms under steel sector.

Conclusion

The relationship between financial risk factors and debt financing in capital structure among firms with low, medium and high financial risk using three regression models, first one with only control variables, second one with only financial risk variables as well as dummy and interaction variables for risk level, and third one with full model by including both control and financial risk variable were evaluated. From the estimated results, it is concluded that financial risk variables, particularly interest risk followed by volatility in ROE has significant effect on determining the additional variation in use of debt financing in business through long-term sources among firms under all selected sectors.

Future Research Direction

The present research is an effort to study the impact of financial risk on choice of debt equity mix. It can be further extended to other risk factors such as operating risk, interest rate risk, market risk etc. There are six selected industries have taken for the present analysis. Further research can be conducted on a single Industry while taking into consideration of more variables. For comprehensive and detailed understanding of debt – equity mix decision should be conducted by taking larger sample size.

Reference

Friend, I. and L. Lang, "An Empirical Test of the Impact of Managerial Self Interest on Corporate Capital Structure." *Journal of Finance*. Vol.43, (1988): 271-281.

Gabriel, Stephan C. and C.B. Baker. "Concepts of Business and Financial Risk." *American Journal of Agricultural Economics*. 62(3), August (1980): 560-564.

Garvey, Gerald T. and R. Hanka, Gordon, "The Management of Corporate Capital Structure: Theory and Evidence." Vol. 21, Nov., (1997): 100-104.

Kim, W. and E.H. Sorensen. "Evidence on the Impact of the Agency Costs of Debt in Corporate Debt Policy." *Journal of Financial and Quantitative Analysis.* Vol. 21, (1986): 131-144.

Lisa Koonce, Mary Lea Mc Anally and Molly Mercer. "How do Investors Judge the Risk of Financial Items?" *The Accounting Review*. Vol. 80, No.1, January (2005): 221-242.

Milton, Harris and Artur, Raviv. "Capital Structure and the Informational Role of Debt." *The Journal of Finance.* Vol. 45, No.2, June (1990): 321-350.

Sharma L. V. L. N., M. Thenmozhi and S. K. Preethi. "Effect of Non- Traditional Debt on Financial Risk: Evidence from Indian Manufacturing Firms." Paper Presented at *International Conference on Business and Finance – 2003*. December 15 and 16, 2003.

Changing Jobs: Influencing Factors

Jins Joy P. and R. Radhakrishnan

Abstract

Employees are frequently changing their employment; owing to several motives: company factors and personal factors. The company factors are bifurcated into favourable monetary factors and non-monetary factors, unfavourable monetary factors and non-monetary factors. This study is made to test the influence of factors on the employment decisions of the employees. Five industries are considered to collect sample required to analyze: Aviation, banking, software, automobile and financial services. A detailed questionnaire is presented to the employees, to show their tendencies with the factors having influence in job retention and resignation decisions. This study suggested that, future research will likely focus on greater understanding of personal characteristics, such as emotion in defining job satisfaction and how employee attitudes influence organizational performance.

Key words:

Job Retention, Resignation, Monetary Factors, Non-Monetary Factors, Personal Factors.

Jins Joy P., Research Scholar, Bharathiar University, Coimbatore-641046, E-mail id: jinsjoy.p@gmail.com

Dr. R. Radhakrishnan, Professor and Head, Department of Management Studies, SNS College of Technology, Coimbatore, E-mail id: dr_radha_krish@yahoo.co.in

Increasing employee turnover is one among the evergreen problems poising in Indian industries. Organizations invest a lot on their employees in terms of induction and training, developing, maintaining and restructuring them in their organization. Often employees are shifting their employment to wherever possible with the lot of motives. Motives are numerous and different from one person to another. Few expect monetary benefits and few expect non-monetary benefits. If there is any lack in provision of such kind of monetary and non-monetary benefit. The employees no way waste their time to stay in the organization. If the benefits are meets their expectation, they will settle without any limit in the organization. There are large number of factors having influence on the job retention and resignation decisions. It is a big challenge to sourcing; hiring, and retaining. Self-motivated and talented employees are the responsibility of the company's governing board and leadership team. Getting and keeping good staff demands focused. Formal and informal policies and procedures make retention a prime management outcome. The human

relations department alone cannot reduce turnover. For significant, positive change, company leaders must establish distinct retention processes and programmes within all levels of an organization. After finding the right people, it is management's primary role to take responsibility for the success of their employees including leading people towards performance goals and targets. The focus of our discussion in this section is on job retention and resignation decision of the employees, because this is the employee attitude that is most often related to organizational outcomes. Monetary and non-monetary factors, personal factors of an employee, have been studied as well, although they have similar relationships to outcomes as job retention and resignation.

Background of the Study

There are a number of factors that will contribute to a forthcoming movement of employee from one company to another company. New job opportunities are progressively escalating in every field that was once under-performing. Fast online job search resources let employees search and apply to new jobs easily. Globalization and off-shoring have created a sense of discomfort and lack of loyalty to companies. Increased corporate employment efforts are aiming to snatch top performers and the natural shift of age dynamics means retirement levels will soon come in waves, leaving once unachievable roles open. Never has it been more critical to organize company retention programmes before high turnover takes hold and strongly impacts on the business goals. When seeking to resolve the problems associated with high turnover, companies must first investigate the underlying causes. They need to have in mind an appropriate level of attrition by setting benchmarks against similar organizations and taking into account the entire cost of turnover to the company. Some issues may be addressed at a local level by placing a greater emphasis on listening and responding to employees concerns and ideas. Yet, in general, retention difficulties are likely to require a company leader with the ability to engage the employees - using strategies such as job satisfaction surveys - who can also create a broader, long-term plan. Here the focus can be given to study the company specific monetary and non-monetary factors influence on employment decisions are studied along with personal factors of an employee.

Review of Literature

A considerable amount of literature has been published on job retention and resignation decision of employees. Most researchers (Bluedorn, 1982; Kalliath and Beck, 2001; Kramer et al., 1995; Peters et al., 1981; Saks, 1996) have attempted to answer the question of what determines people's intention to quit by investigating possible antecedents of employees' intentions to quit. Employees have a strong need to be informed. Organization with strong communication systems enjoyed lower turnover of staff (Labov, 1997). Employees feel comfortable to stay longer, in positions where they are involved in some level of the decision-making process. That is employees should fully understand about issues that affect their working atmosphere (Magner et al. (1996). But in the absence of openness in sharing information, employee empowerment of the chances of continuity of employees is minimal. Garden (1989) points out that a high labour turnover may mean poor personnel policies, poor recruitment policies, poor supervisory practices, poor grievance procedures, or lack of motivation. All these factors contribute to high employee turnover in the sense that there is no proper management practices and policies on personnel matters hence employees are not recruited scientifically, promotions of employees are not based on spelled out policies, no grievance procedures in place and thus employees decide to quit.

John and Edwards (2001) similar results were also found in a series of questions regarding descriptions of the workers' personal work situation. High marks were given for aspects such as, reasonable employee expectations, reasonable hours, and respect from superiors, recognition, and a feeling of producing something important. The lowest responses were for, having a say in decisions, opportunities for creativity, and opportunities for promotions. Harter (1987) attempted to study using professionals in forty companies. Again using the job seekers' attitude, his findings concurred with the initial study in that workers were satisfied with supervision, co-workers, work, and benefits, but dissatisfied with promotion and contingent rewards. The mean score for communication was near the mid-point; suggesting some workers were satisfied and a similar number were dissatisfied. Interestingly, George William's (1991) study of perceptions of employees in rendering job found that "relationship with non-professional staff" was a source of great satisfaction among professional employees, suggesting either the existence of a less classic system than in the MNCs or that professional employees are unaware that many paraprofessionals feel deprecated. Both

studies found that job satisfaction of professional employees was high. Saravanakumar et al. (2011) presented a study on job seekers attitude; it is found that job seekers depend the company factors and personal factors on seeking jobs. But null hypothesis does not support this study.

Objective of the Study

This study makes an attempt in this direction with the following objectives:

- To identify and evaluate the favourable and unfavourable monetary factors which are involved in job retention and resignation decisions of an employee.
- To investigate the consequences of favourable and unfavourable non-monetary benefits offered to the employees and their impact on employment decisions.
- To check the influence of personal factors of an employee on job retention and resignation decisions.

Research Methodology

A sample 100 employees with a record of having employment for the past two years were randomly selected across the states of Tamilnadu, Andra Pradesh, Kerala and Karnataka. In order to maintain homogeneity and consistency among the different industries, 20 employees from five industries – aviation, banking, software, automobile and financial services - were selected for this study. The sample selection and data collection were completed with the help qualified enumerators; the detailed questionnaires were presented to the respondents to collect the required data. The questionnaire used for the sample survey is structured and non-disguised. It consisted of two major sections. The first section intended to collect the various company specific – monetary and non-monetary - factors affecting or favouring job retention and resignation decisions; the second section intended to collect the various personal factors affecting the employment decision. The sample survey takes a period of three months from April 2011to June 2011. The enumerators appointed to collect the data from the several parts of South India. This study was conducted in the cities like Chennai, Coimbatore, Trivandrum, Cochin, Hyderabad, Vishakhapatnam, and Bangaluru. This study focuses only the employee's attitude towards the retention or resignation of their jobs, it doesn't attempt to test the company's decision to cut their employment force is completely excluded. There is no partiality shown between male and female employees.

The selection of sample has primarily been guided by two factors, speedy and reliable response from the employees, and availability of employees in the sample area. Initially 155 samples selected for this study, but poor and delayed response leads for rejection of nearly 55 samples. In order to get reliable data about the employee decisions on employment, all the factors are grouped into different heads i.e. favourable company factors – Job retention decisions – unfavourable company factors – Job resignation decisions and personal factors influencing employment decisions. Then the factors are analyzed with due diligence. In order to test its worthiness of data collected, the Kendall's Coefficient of Concordance is employed and necessary hypothesis framed and tested.

Factors Influencing Job Retention and Resignation Decisions

Monetary Factors

The following is the most important factors considered when taking job retention decisions. This list shows the factors that employees consider the most important on retention decisions. The favourable factors are the motive for job retention and unfavourable factors are the motive for job resignation decisions.

It can be seen from the above table that high basic pay is the most important factor considered when taking job retention/ alteration decisions. This is borne out by the fact that 77 out of 100 respondents took this factor into account. 48 out of 100 employees from the five industries, quit their job for low basic pay. Then the annual increment continues to be a top consideration for employees, the same is agreed by 74 respondents. Among the five industries segment, Aviation sector offers highest basic pay, next followed by banking, software and financial services. If there is any low increment, it will be the deciding factor to resignation. Pension and provident fund is a fancy income and it is a retirement planning source, hence it is ranked as third by 73 respondents. In Indian corporate pension / provident fund this is evidenced by 32

Table 1: Monetary Factors on Job Retention and Resignation Decisions

Sl. No.	Factors	Favourable						Unfavourable					
		Aviation	Banking	Software	Automobile	Financial Services	Total	Aviation	Banking	Software	Automobile	Financial Services	Total
1.	Basic Pay	17	16	15	14	15	77	11	13	10	4	10	48
2.	Increment	12	15	15	17	16	74	9	7	8	5	10	39
3.	Pension Provident Fund	12	13	15	18	15	73	10	6	6	3	7	32
4.	Adequate Allowances	9	11	15	16	16	67	8	5	5	3	5	26
5.	Perquisites	17	13	12	9	11	62	5	3	3	1	6	18
6.	Gratuity	11	11	13	15	11	61	5	2	2	1	4	14
7.	Leave Encashment	7	6	9	11	8	41	5	1	1	3	3	13
8.	Bonus	7	4	3	2	3	19	5	2	1	1	3	12
9.	High Incentives	5	3	2	2	3	15	4	2	0	0	2	8
10	Leave Travel Concession	2	2	3	4	2	13	2	1	1	0	1	5

Source: Primary Data

respondents. Most employment decisions are influenced by the allowances: 47 out of 67 agreed from the 100 repondents, belongs to software, automobile and financial services. In terms of perquisite, aviation employees agreed highly, their decisions were based on the perquisite benefits from the companies. When 100 respondents were examined, 62 of them considered the same concept. The next thing placed in this question wreath is gratuity, 61 respondents shown preference in payment of gratuity. Subsequently as a question to ask for, the respondents are requested to rate their perception with leave encashment. Nearly 41 percent of the respondents are considered this in their employment decisions. Then the remaining factors like bonus, incentive and leave travel concession are considered below 20 percent of respondents.

In many occasions employment decisions are highly affected by the same factors associated with the employment. To a question as to what factors affect the retention decision of employment, the respondents are asked to state which factors have been considered by them at the time of their resignation. The same priority has been assigned by the respondents to the factors having a negative influence on the employment decisions, in case the monetary benefits are unfavourable to them.

Non-Monetary Factors

Non-monetary factors are considered largely on job retention and resignation times, the factors are listed in Table 2.

It is clear from the table 2; career growth is a non-monetary factor which has a big influence in job retention and resignation decisions. It is agreed by 78 respondents, and their extension of employment tenure is based on the career growth opportunities. 55 employees revealed that if there is no career growth the employees are not interested to stay there. According to 75 respondents from the sample companies, designation and job security is another factor which has an impact on the employment decisions. At the same time job resignations are taking place because of inadequate job security and low designation cadre. Next recognition and reward and less work pressure have been placed to third and fourth rank by the 68 and 62 respondents respectively. Some employees are working with the same institution when the corporate culture and superior relationship. It is agreed by 61 and 41 respondents

Table: 2 Non-Monetary Factors on Job Retention and Resignation Decisions

Sl. No.	Factors	Favourable						Unfavourable					
		Aviation	Banking	Software	Automobile	Financial Services	Total	Aviation	Banking	Software	Automobile	Financial Services	Total
1.	Career Growth	18	15	16	14	15	78	12	15	11	6	11	55
2.	Designation and Power	13	15	15	15	17	75	10	8	9	6	11	44
3.	Job Security	12	14	15	18	15	74	11	7	7	4	8	37
4.	Recognition & Reward	9	12	15	16	16	68	9	6	6	4	6	31
5.	Less Work Pressure	17	13	12	9	11	62	6	4	4	3	7	23
6.	Good Corporate Culture	11	11	13	15	11	61	6	3	3	2	5	19
7.	Superior Relationship	7	6	9	11	8	41	6	2	2	4	4	18
8.	Safety and Welfare	7	4	3	2	3	19	6	3	2	2	4	17
9.	Ethics and Value	5	3	2	2	3	15	5	3	0	0	2	10
10	Transfer to Home Town	2	2	3	4	2	13	2	1	1	0	1	5

Source: Primary Data

Table 3: Personal Factors on Job Retention and Resignation Decisions

Sl. No.	Factors	Sector					
		Aviation	Banking	Software	Automobile	Financial Services	Total
1.	Proximity	13	15	12	6	12	58
2.	Family Care	11	9	10	7	10	47
3.	Spouse Employment	12	8	8	5	9	42
4.	Education of Kids	10	7	7	5	7	36
5.	Suitability	7	5	5	3	8	28
6.	Lack of Specialized Company	7	4	4	3	6	24
7.	Friendship Purpose	7	3	3	5	5	23
8.	Further Study	6	3	2	2	4	17
9.	Scope for Personal Business	5	3	0	0	3	11
10	Fear to Change	2	1	1	0	1	5

Source: Primary Data

respectively. Safety and welfare, ethics and value and transfer to home town are having less impact in the job retention decisions. During some occasions, the employees quit their employment because of several reasons, and the same factors are presented to the respondents, with a view to rating their intention to factors having big impact on the employment alternations. The same kind of preference is given by the respondents to the factors presented in the table 2.

Personal Factors

Personal inspirations are essential in deciding to endure employment in a company. It includes factors like physical factors, social factors, time factors, family factors and so on. The employees have unquestionably been affected by all these factors at one time or another. In table 3, the personal factors are summarized:

Personal factors are extremely inducing the decisions of an employment. Proximity is the factor induced 58 respondents to work in a company. Subsequently, Family care plays a crucial role in deciding their employment, and 47 respondents preferred to work in a company with a view to preserve their family. Similarly spouse employment in a company or in home town forced the employees to continue employment in the existing organization. Education of kids and suitability with the job have big impact on the decisions as to retain and resign in a company. Lack of specialized company in home town or near-by town alters retentions decisions; it is agreed by 24 respondents. There is a trend evident from the above, reason for further study; scope for personal business and fear to change to new environment are the most considered factors in retention and resignation decisions.

Testing of Hypothesis

Kendall's coefficient of concordance is used to test the validity of the data collected and analyzed. Kendall's coefficient of concordance, represented by the symbol *W*, is an important nonparametric measure of relationship. It is used for determining the degree of association among several (*k*) sets of ranking of *N* object or factors. When the ranking or *N* objects or factors exceed two set, we generally work out Kendall's coefficient instead of Spearman's coefficient correlation. Kendall's method is considered an appropriate measure of studying the degree of association among three or more sets of rankings. This descriptive measure of the agreement has special applications in providing a standard method of ordering objects according to consensus when we do not have an objective order of the objects. The procedure for computing and interpreting Kendall's coefficient concordance (*W*) is as follows:

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

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

- If N is 7 or smaller Kendall's table adopted, if N exceeds 7, then χ^2 value to be worked out as: $\chi^2 = k(N-1).W$ with degrees of freedom = (N – 1) for judging W's significance at a given level in the usual way of using χ^2 values.

Where

$s = \Sigma (R_j - R_j)^2$[It is the sum total of $(R_j - R_j)^2$]

k = no. of sets of ranking (industries)

N = number of objects or factors (10 factors listed in table 1 to 3)

$1/12k^2 (N^3 - N)$ = maximum possible sum of the squared deviations i.e. the sum *s* which would occur with perfect agreement among *k* rankings.

Analysis of Favourable Monetary factors

Here five sets of rankings used to work out the coefficient of concordance for judging the significant difference in ranking by respondents. For checking this inference, the null hypothesis state there is significant difference in ranking by the different industry employees as to job retention decisions. For testing the worth of hypothesis, industry wise the factors are scheduled as per the respondents' rankings. When tied ranks occur, the average method of assigning ranks be adopted, that is, assign to each factor the average rank which the tied observations occupy. For this study, the factors noted under favourable monetary

Table 4: Analysis of Favourable Monetary Factors

***K* = 5**	**Factors**										**N = 10**
	1	2	3	4	5	6	7	8	9	10	
Aviation	1.5	3.5	3.5	6	1.5	5	7	8	9	10	
Banking	1	2	3.5	5.5	3.5	5.5	7	8	9	10	
Software	2.5	2.5	2.5	2.5	6	5	7	8.5	9	8.5	
Automobile	5	2	1	3	7	4	6	9.5	9.5	8	
Financial service	2	2	2	1	5.5	5.5	7	8.5	8.5	10	
Sum of ranks (R_j)	12	12	12.5	18	23.5	25	34	42.5	45	46.5	ΣR_j = 271
$(R_j - R_j)^2$	228.01	228.01	213.16	82.81	12.96	4.41	47.61	237.16	320.41	376.36	s = 1750.9

(Source: Table 1 – Favourable Monetary Factors)

Table 5: Analysis of Unfavourable Monetary Factors

***K* = 5**	**Factors**										**N = 10**
	1	2	3	4	5	6	7	8	9	10	
Aviation	1	3	2	4	6	6	6	8	9	10	
Banking	1	2	3	4	5	6	7.5	7.5	9	10	
Software	1	2	3	4	5	6	7	8.5	0	8.5	
Automobile	2	1	4	4	6.5	6.5	4	8	0	0	
Financial service	1.5	1.5	3	5	4	6	7	8	9	10	
Sum of ranks (R_j)	7.5	9.5	15	21	26.5	30.5	31.5	40	27	38.5	ΣR_j = 247
$(R_j - R_j)^2$	295.84	231.04	94.09	13.69	3.24	33.64	46.24	234.09	5.29	190.44	s = 1147.6

(Source: Table 1 – Favourable Monetary Factors)

Table: 6 - Analysis of Favourable Non-monetary Factors

***K* = 5**	**Factors**										**N = 10**
	1	2	3	4	5	6	7	8	9	10	
Aviation	1	3	4	6	2	5	7.5	7.5	9	10	
Banking	1.5	1.5	3	5	4	6	7	8	9	10	
Software	1	3	3	3	6	5	7	8.5	10	8.5	
Automobile	5	3.5	1	2	7	3.5	6	9.5	9.5	8	
Financial service	1	3	2	4.5	4.5	6	7	8.5	8.5	10	
Sum of ranks (R_j)	9.5	14	13	20.5	23.5	25..5	34.5	42	46	46.5	ΣR_j = 275
$(R_j - R_j)^2$	324	182.25	210.25	49	16	4	49	210.25	342.25	361	s = 1748

(Source: Table 2 – Favourable Monetary Factors)

factors in Table 2, for easy way to understand, the factors are numbered from 1 to 10 and provided in the following matrix.

$\bar{R}_{j=} \Sigma R_j / N = 271 / 10 = 27.1$, s = 1750.9

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

$= 1750.9 / 1/12(5^2) (10^3 - 10) = 1750.9 / 25/12(990) = 1750.9 / 2062.5$

$= 0.8489$

As N is larger than 7, χ^2 worked out to determine the W's significance at five percent level.

$\chi^2 = k$ (N – 1).W with N – 1 degrees of freedom

$= 5 (10 - 1) (0.8489) = 38.2$

The table value of χ^2 at five percent level for N – 1 = 10 – 1 = 9 degrees of freedom is 16.919. Calculated value is 38.2, this is considerably higher than the table value. This does not support the null hypothesis of there is significant difference in ranking by the different industry employees as to job retention decision and as such it is resolved that W is significant at five percent level.

Analysis of Unfavourable Monetary factors

The same testing procedure employed for unfavourable factors involved in employment decisions. Here, the null hypothesis state there is significant difference in ranking by the different industry employees as to unfavourable monetary factors affecting employment decisions.

$\bar{R}_{j=} \Sigma R_j / N = 247 / 10 = 24.7$, s = 1147.6

$W = 1147.6 / 1/12(5^2) (10^3 - 10) = 1147.6 / 25/12(990)$, $= 1147.6 / 2062.5$

$= 0.5564$

As N is larger than 7, χ^2 worked out to determine the W's significance at five percent level.

$\chi^2 = k$ (N – 1).W with N – 1 degrees of freedom

$= 5 (10 - 1) (0.5564) = 25.038$

The table value of χ^2 at 5percent level for N – 1 = 10 – 1 = 9 degrees of freedom is 16.919. Calculated value is 25.038, this is considerably higher than the table value. This does not validate that there is significance difference in ranking by the different industry employees as to unfavourable monetary factors affecting employment decisions and as such it is concluded that W is significant at five percent level.

Analysis of Favourable Non-monetary Factors

These factors are tested with the null hypothesis; there is significant difference in ranking by the different industry employees as to company specific favourable non-monetary factors.

$\bar{R}_{j=} \Sigma R_j / N = 275 / 10 = 27.5$, s = 1748

$W = 1748/1/12(5^2) (10^3 - 10) = 1748/25/12(990) = 1748 / 2062.5 = 0.8475$

As N is larger than 7, χ^2 worked out to determine the W's significance at five percent level.

$\chi^2 = k$ (N – 1).W with N – 1 degrees of freedom

$= 5 (10 - 1) (0.8489) = 38.12$

The table value of χ^2 at five percent level for N – 1 = 10 – 1 =9 degrees of freedom is 16.919. Calculated value is 38.12, this is considerably higher than the table value. This does not support the null hypothesis if there is significant difference in ranking by the different industry employees as to company specific favourable non-monetary factors and as such it is inferred that W is significant at five percent level.

Analysis of Unfavourable Non-monetary Factors

The following factors are tested with the null hypothesis; there is significance difference in ranking by the different industry employees as to unfavourable non-monetary factors affecting employment decisions.

$\bar{R}_{j=} \Sigma R_j / N = 246 / 10 = 24.6$, s = 1090.18

$W = 1090.18/1/12(5^2) (10^3 - 10) = 1090.18/25/12(990)$, $= 1090.18 / 2062.5$

$= 0.5285$

As N is larger than 7, χ^2 worked out to determine the W's significance at five percent level.

$\chi^2 = k$ (N – 1).W with N – 1 degrees of freedom

$= 5 (10 - 1) (0.5285) = 23.78$

Table: 7 - Analysis of Unfavourable Non-monetary Factors

***K* = 5**	**Factors**										**N = 10**
	1	2	3	4	5	6	7	8	9	10	
Aviation	1	3	2	4	6.5	6.5	6.5	6.5	9	10	
Banking	1	2	3	4	5	7	9	7	7	10	
Software	1	2	3	4	5	6	7.5	7.5	0	9	
Automobile	1.5	1.5	4	4	6	7.5	4	7.5	0	0	
Financial Service	1.5	1.5	3	5	4	6	7.5	7.5	9	10	
Sum of ranks (R_j)	6	10	15	21	26.5	33	34..5	36	25	39	$\Sigma R_j = 246$
$(R_j - \overline{R}_j)^2$	345.96	213.16	92.16	12.96	3.61	70.56	46.24	98.01	0.16	207.36	s = 1090.18

(Source: Table 2 – Favourable Monetary Factors)

Table: 8- Analysis of Personal Factors

***K* = 5**	**Factors**										**N = 10**
	1	2	3	4	5	6	7	8	9	10	
Aviation	2	5.5	3.5	5.5	7..5	7.5	1	3.5	9	10	
Banking	4	2	2	6	6	6	2	8	9.5	9.5	
Software	1	3.5	5	3.5	2	6	8	0	8	8	
Automobile	1	4	4	4	2	6	0	7.5	0	7.5	
Financial Service	2.5	1	4.5	4.5	6.5	2.5	6.5	9	9	9	
Sum of ranks (R_j)	10.5	16	19	23.5	24	28	17.5	28	35.5	44	$\Sigma R_j = 202$
$(R_j - \overline{R}_j)^2$	94.09	17.64	1.44	10.89	14.44	60.84	7.29	60.84	234.09	566.44	s = 1068

(Source: Table 3 – Favourable Monetary Factors)

The table value of χ^2 at five percent level for N – 1 = 10 – 1 = 9 degrees of freedom is 16.919. Calculated value is 23.78, this is considerably higher than the table value. This rejects null hypothesis that there is significant difference in ranking by the different industry employees as to unfavourable non-monetary factors affecting employment decisions and as such it is inferred that W is significant at five percent level.

Analysis of Personal Factors

This can be validated with the null hypothesis state there is significant difference in ranking by the different industry employees as to company specific favourable monetary factors.

$\overline{R}_j = \Sigma R_j / N = 202 / 10 = 20.2$, s = 1068

$W = 1068 / 1/12 (5^2) (10^3 - 10) = 1068 / 25 / 12(990) = 1068 / 2062.5$

$= 0.5178$

As N is larger than 7, χ^2 worked out to determine the W's significance at five percent level.

$\chi^2 = k$ (N – 1).W with N – 1 degrees of freedom

$= 5(10 – 1) (0.5178) = 23.301$

The table value of χ^2 at five percent level for N – 1 = 10 – 1 = 9 degrees of freedom is 16.919. Calculated value is 23.301,

this is considerably higher than the table value. Clearly this doesn't support the null hypothesis state there is significant difference in ranking by the different industry employees as to company specific favourable monetary factors and as such it is inferred that W is significant at five percent level.

Conclusion

It is important that both the organization and the employee know what they want to get out of the job. However, unfamiliar to most managers engaged in the field of management, retaining good staff ideally begins during the recruitment phase. A key challenge during recruitment is differentiating candidates who do well in interviews and candidates who will do well in the actual position. Often they can be mutually exclusive. The goal for any recruitment strategy should be to attract a top performer who will stay with the company for as long as possible. In this study, null hypothesis does not support to the impact of favourable monetary and non-monetary factors. If employee handling is not up to the industry level, the employees are not interested to continue their service in the company. Monetary benefits are directly related with their livelihood. If there is any increase in salary, increment and bonus etc. it will create a positive wave among the employees. Job cutting is low at the time of giving big monetary benefits to the employees. Non-monetary benefits like promotion, job security and designation etc. are another source to retain the employees in the company. Apart from this, there is large number of personal factors having influence on the employment alteration decisions. In order to hire those less perfect individuals, an ideal role profile should be created. If a company spends quality time, energy and focus to create such a profile it becomes much easier to source qualified candidates who will successfully fill the position.

References

Bluedorn A.C. "A Unified Model of Turnover from Organizations." *Human Relations*. Vol. 35, (1982):135-153.

Garden A.M. "Correlates of Turnover Propensity of Software Professionals In Small High Tech Companies." *R&D Management*. Vol. 19 (4), (1989): 325-334.

George, William. "Perception of Employees in Rendering Job." *Journal of Business Studies*. Vol. 24, No.2, 232-251.

Harter, N. "Psychology of Job seekers as to New Offer." *Journal Industrial Psychology*. Vol. 6, (1987): 14-28.

John, O. and Edwards, K. "Human Psychology in Undertaking New Employment." *Journal of Cross-Cultural Psychology*. Vol.15, No.3, (2001): 25-36.

Kalliath, T.J. and A. Beck. "Is the Path to burnout and turnover paved by a Lack of Supervisory Support: A Structural Equations Test." *New Zealand Journal of Psychology*. Vol. 30, (2001): 72-78.

Kramer, M.W., R.R. Callister and D.B. Turban. "Information-receiving and Information-giving during Job Transitions." *Western Journal of Communication*. Vol. 59, (1995): 151-70.

Labov, B. "Inspiring Employees the easy way." *Incentive*. Vol. 171(10), (1997): 114-118.

Magner, N., R. Welker, and G. Johnson. "The Interactive Effects of Participation and Outcome Favourability in Performance Appraisal on Turnover Intentions and Evaluations of Supervisors." *Journal of Occupational Organization Psychology*. Vol. 69, (1996): 135-143.

Peters, L., R. Bhagat and O'Connor. "An Examination of the Independent and Joint Contribution of Organizational Commitment and Job Satisfaction on Employee Intention to Quit." *Group Organizational Studies*. Vol. 6, (1981): 73-82.

Saks, A.M. "The Relationship between the Amount of Helpfulness of Entry Training and Work Outcomes." *Human Relations*. Vol. 49, (1996): 429-451.

Saravanakumar, S. and S. Gunasekaran. "Job Seekers attitude towards choosing a Job." *International Journal of Business Economics and Management Research*. Vol. 2 (3), (2011): 65-76.

Multiple Performance Measures: Six TQM Practices

Shivakumar B. Burli, B. B. Kottursheettar, and Ruchita V. Dalmia

Abstract

Rice mills constitute an important segment of food industry of southern states of India. This paper investigates the relationship between quality management practices and multiple performance measures in rice mills of north Karnataka. Sample size of the survey comprised 80 rice mills including both ISO-9000 certified and non-ISO mills from North Karnataka. The dataset was analysed using statistical software SPSS. The results reveal the positive influence of only three TQM practices on firms' performance. The comparative analysis of TQM practices with non-ISO rice mills was carried out to bring out explicit benefits of ISO certification.

Key words:

ISO, Rice Mills, TQM, India, SPSS.



Shivakumar B. Burli, Asst. Professor, Department of Industrial and Production Engineering, BVB College of Engineering and Technology, Hubli – 580 021, Karnataka, Email: sbburli@bvb.edu

Dr. B. B. Kottursheettar, Professor, Department of Industrial and Production Engineering, BVB College of Engineering and Technology, Email: bbkshettar@bvb.edu

Ruchita V. Dalmia, P.G. Student, Department of Industrial and Production Engineering, BVB College of Engineering and Technology, Email: ruchita.dalmia@gmail.com

TQM is an approach for continuously improving the quality of goods and services delivered through the participation of individuals at all levels and functions of an organization.

Export oriented small-scale industries form an important segment of Indian economy. In India alone, basmati rice, non-basmati rice exports are valued at (US) $800 million per annum. Over 80 percent of Basmati rice grown in India is produced for export. The percentage share of rice in total national export was 4.5 percent during 1998-99. Rice export units contribute nearly 25 percent of total agriculture export from the country. The Government of India has been emphasising planned development of small-scale industries in the country. Various policies, planning and programmes are initiated from time to time to promote this sector, which contributes significantly in economic development and employment generation in the surrounding society.

As rice mills constitute an important sector of processing industries and contribute to the export

growth of Indian economy, authors decided to study the impact of quality management practices. Primary milling of rice, wheat and pulses is the most important activity in food grains. These grains are grown in almost all parts of India. Few decades ago, these food grains were processed at family level before cooking. Today, due to industrialization and global competitive market trend, it has emerged as a major industrial activity in small medium scale sector to cater to the needs of increasing population. There is large number of mills engaged in processing/milling of pulses, wheat and rice, and are spread over in almost all states across the country. In rice mills quality is based on a combination of subjective and objective factors. Whether rice is acceptable for an intended use is determined by quality testing based on a fixed set of criteria. How these are ranked in importance in evaluating quality depends largely on the consumer. For export-oriented firms, it has become essential to implement TQM practices. ISO 9001:2000 certification is a public promise for TQM implementation in an organisation.

Improving the quality of products and services is fundamental to a firm's business success. In an attempt to improve quality, firms have to pursue many continuous improvement programmes, most notably total quality management. TQM is an approach for continuously improving the quality of goods and services delivered through the participation of individuals at all levels and functions of an organization.

In Indian context there is scarcity of studies available related to ISO certification and its effectiveness on performance of rice mills? The objective is to investigate the relationships between TQM practices and multiple non-financial performance measures and to assess whether there is a significant difference in the level of TQM practices between ISO and Non ISO certified rice mills.

Literature Review

Many industries claim that TQM is necessary for them to remain competitive. This is because it requires a different implementation approach to cater for the varying needs of the industries in order for effective implementation. Small and medium sized enterprises (SMEs), for example, have been slow in adopting TQM when compared to large companies. Their involvement has focused primarily on ISO 9000 certification, and very few have advanced beyond that (Yusof and Aspinwall, 2000). Since ISO 9000 series of standards first emerged in 1987, many authors found that ISO offered a reasonable first step toward implementing quality (Bradley, 1994; Claver et al., 2002; Escanciano et al., 2001; Gotzamani and Tsiotras, 2002; Stephens, 1997; Taylor, 1995; Tummala and Tang, 1996; Withers and Yusof and Aspinwall, 2000). This initial version of ISO addressed quality issues in categories such as quality policy, quality documentation and quality planning.

The literature review highlights a description of TQM and its practices *viz*, Management Support, Employee Management, Process Management, Continuous Improvement, Supplier Relationship and Customer Focus. Advocates of TQM have suggested that there should be a positive relationship between implementing TQM practices and performance measures. Recent research (Sila, 2007; Santos-Vijande and Alvarez-Gonzalez, 2007) on TQM has examined the relationships between the TQM practices and various levels of organisational performance. According to some authors, these areas have often been considered the critical factors of TQM (Sila and Ebrahimpour, 2003; Conca et al., 2004; Claver et al., 2003). Brief explanation of these factors is given in the following section.

Total Quality Management

Total quality management (TQM) is a systematic quality improvement approach for firm-wide management for the purpose of improving performance in terms of quality, productivity, customer satisfaction and profitability. Since many firms around the world have embraced TQM practices for decades, they have earned the attention of many researchers from diverse areas. While there are many success stories related to TQM practices, some TQM programmes have failed, and some researchers (Bohan, 1998; Masters, 1996; Whalen and Rahim, 1994; McCabe and Wilkinson, 1998; Taylor and Wright, 2003) have found reasons for these failures.

Top Management Support

Management support, unlike internal management control, is the management task of maintaining and practising a vision of the organization with respect to customer requirements. TQM theory holds that, with a full commitment to a total quality setting, leaders can organize and synergise people's activities to achieve the common goal of the organization.

Employee Management

According to Deming, people in research, design, sales and production must work interdependently as a team across traditional organizational functions, rather than working independently within their functions, in order to foresee problems in production that may be encountered and to improve the quality of the current and future product or service. It was observed in many firms that non managerial employees can make significant contributions when they are empowered. Hence employee suggestions and participation are encouraged in a total quality setting.

Supplier Management

The vendors and purchasing departments in a TQM setting work together to reduce costs and improve quality continuously because teams bring consistency of effort along with knowledge. Deming's Point 4 indicates the advantages of working with a single supplier and building a long-term relationship marked by trust and loyalty (Walton, 1986). Buyers should select suppliers on the basis of quality, rather than solely on the basis of cost and should work with them to improve their quality practices.

Process Management

Process management emphasises activities, as opposed to results, through a set of methodological and behavioural practices. Process management includes preventive and proactive approaches to quality management, such as designing fool-proof and stable production schedules and work distribution to reduce variations and improve the quality of the product in the production stage (Kayanak, 2003; Flynn et al., 1995).

Customer Focus

Deming, 1986 and Dean and Bowen, 1994, state Customer focus, as the most important part of production, means producing and delivering products and services that fulfil customer's present and future needs and expectations. Customer focus also refers to exceeding customers' expectations in order to ensure long-term organisational success and survival. In fact, many firms use customer care indicators in performance evaluations of the employees (Wilkinson et al., 1993). According to some researchers (Evans and Lindsay, 1993; Dean and Bowen, 1994) internal customers, whose work depends on the work of other employees, are also important and employees must view themselves as customers and suppliers.

Continuous Improvement

Continuous improvement refers to searching for never-ending improvements and developing processes to find better methods in the process of converting inputs into outputs. Some authors (Stevenson, 1996; Dean and Bowen, 1994) emphasise that by improving interlinked processes, a firm can do a better job of satisfying customers' needs and expectations. Spencer, 1994 tells that in a total quality setting, work processes are reviewed and improved constantly. Reduction in variation improves output, the need for rework, mistakes, and waste of staff, machine time, and materials (Anderson et al., 1995; Walton, 1986; Johston and Daniel, 1991).

Organizational Performance

According to Richard et al. (2010), organisational performance encompasses three specific areas of firm outcomes: (a) financial performance (profits, return on assets, return on investment, etc.); (b) product market performance (sales, market share, etc.); and (c) shareholder return (total shareholder return, economic value added, etc). The term Organisational effectiveness is broader. Specialists in many fields are concerned with organisational performance including strategic planners, operations, finance, legal, and organisational development. The multiple dimensions are financial performance (e.g. shareholder return), non-financial performance that includes customer satisfaction, social responsibility (e.g. corporate citizenship, community outreach).

ISO and TQM

Many researchers have explored issues about how well ISO standard would compare with the overall TQM system (Goetsch and Stanley, 1998). It is true that there are common dimensions between ISO and TQM, and they rest largely on process management and statistical tools. However, a message that has come through in the writings of various authors (Gotzamani and Tsiotras, 2001; Lee et al., 1999; Reimann and Hertz, 1996; Zhu and Scheuermann, 1999) is that companies that were certified under ISO would still not implement a comprehensive TQM system.

One general statement in the literature has been that TQM affects company performance significantly. For instance, Choi and Eboch (1998) showed how TQM practices have a significant impact on plant performance and customer satisfaction. Samson and Terziovski (1999) explained that behavioural factors in TQM were particularly strong predictors of performance. Chong Lee and Kelce (2003), investigated the existing status of TQM practices in 112 SMEs (manufacturing firms) of China and its impact on their performance. It was found that manufacturing process of these small firms was not an obstacle to the implementation of TQM; instead it was the size of firm, which posed as a threat for implementation. A positive influence of TQM was observed on performance as waste, inventory and costs were reduced and an increase in sales was observed. Impeding factors in TQM implementation were lack of top management commitment and lack of knowledge about TQM implementation, along with lack education and training and inadequate process control techniques.

In the same manner, performance of SMEs was observed in Malaysia by Sohail and Hoong (2003), in India by Mahadevappa et al (2004), in Portugal by Sousa et al. (2005), in Spain by Bou and Beltrain (2005) and in Turkey by Demirbag et al., (2006). All researchers were of the view that ISO certification should be acquired by the SMEs and ISO quality management systems should be integrated with TQM for continuous improvement of the overall business performance.

In Pakistan, researchers studied the trend, status and scope of ISO certification in Pakistani industry and made comparative analyses with Spanish industry and Chinese industry to highlight the differences in approaches and the hurdles encountered in implementation. Earlier, Kamran Moosa (1999), observed that maximum practice of quality management practices in ISO certified firms was in the production department. There was unawareness from usage of different quality tools for performance measurement and that TQM was properly practised in only five percent firms among total.

Jamshed H. Khan (2000) proposed that for successful implementation of TQM in Pakistani organisations commitment of both top and middle level management is compulsory, that a right approach towards TQM implementation should be made, that TQM tools should be used step by step and that workers' fears should be removed and a reward system should be introduced for better performance. Hayat M. Awan studied the impact of ISO registration in sports industry of Pakistan. Benefits gained by these organizations were increase in sales (exports), increased customer satisfaction, better utilization of human and material resources and reduction in costs and wastage. According to Shahab et al., (2006) Supplier relationship and benchmarking were found to be most critical determinants of non-financial performance followed by top management commitment and customer focus. The results of the previous studies converged to a common conclusion that organisation's performance has positive association with TQM practices. This study was an attempt to unfold such association in Indian context.

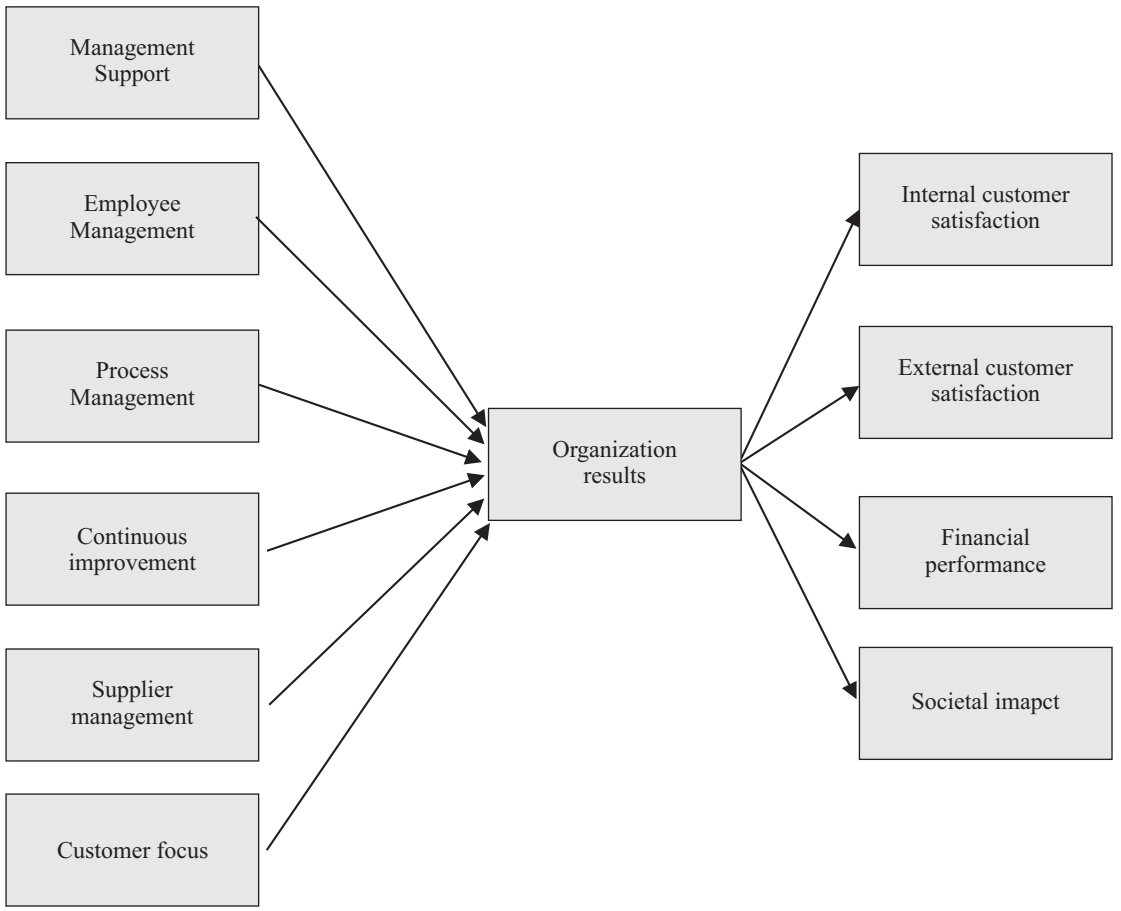
Research Methodology

Due to scarcity in number of ISO certified rice mills in north Karnataka, this study considered convenience sample of 40 rice mills under each category (ISO and Non ISO). Primary data was collected through self-administered questionnaire (Appendix-A) and response to each indicator was collected on Likert's five-point scale with anchor points '5=Strongly Agree' to '1=Strongly Disagree.' Questionnaires were distributed to managers and supervisors of 100 rice industries. 84 instruments were received out of which four were rejected, as they were incomplete. This study finally considered 80 responses out of which 40 belonged to ISO firms and rest 40 belonged to non-ISO rice mills. The indicators under various TQM practices used in this study were adapted from the studies of Richard Y. Hung et al., (2010).

Data analysis has been carried out in three stages. SPSS 17.0 was used to analyze the data. In the first stage, finding Cronbach's alpha checked reliability of the data, which measures internal consistency or average correlation of items in a survey instrument to gauge its reliability.

In second stage bi-variate correlation analysis was used to assess the strength of relationship between dependant and independent variables. In third stage multiple regression analysis was applied to check the contribution individual constructs on performance measures. Coefficient of determination (R-square) was used to check the model adequacy. Finally Z-test was used to test the significance of

Figure 1: Research Model



difference in means of TQM practices between two groups. The research model used for this study is shown in Figure 1.

The following regression model was extracted for the study:

$OP = \beta_0 + \beta_{1*} ms + \beta_{2*} em + \beta_{3*} pm + \beta_{4*} ci + \beta_{5*} sm + \beta_{6*} cf \; e$

Where,

OP = Organisational performance; β_0 = Constant of proportionality; e = error;

$\beta_1, \beta_2 \ldots . \beta_6$ = Unstandardised regression coefficients of predictors *viz*, Management Support (ms), Employee Management (em), Process Management (pm), Continuous Improvement (ci), Supplier Management(sm), Customer Focus (cf) respectively.

Based on the research model, the following six hypotheses were extracted for testing and validation.

H1 = Management support influences positively organisational performance of rice mills.

H2 = Employee management influences positively organisational performance of rice mills.

H3 = Process management influences positively organisational performance of rice mills.

H4 = Continuous improvement influences positively organisational performance of rice mills.

H5 = Supplier management influences positively organisational performance of rice mills.

H6 = Customer focus influences positively organisational performance of rice mills.

Finding the sign and significance regression coefficients in SPSS checked the validity of above six hypotheses.

Results and Discussions

Reliability of the Data

The scale was tested for reliability by using Cronbach's Alpha. Cronbach's Alpha is the coefficient of reliability that is used to check the internal consistency of variables.

As alpha exceeds minimum value of 0.7 for both dependent and independent group of variables in both ISO and Non-ISO cases, it is evident that the data set has good internal consistency.

Correlation Analysis

Bi-variate Correlation was carried out in SPSS on summated factor scores of each construct and the results are presented in Table 2.

Table 1: Reliability Values of ISO and Non ISO Rice Mills

Variable	No.of Indicators	ISO Cronbach's Alpha.	Non ISO Cronbach's Alpha
Independent variables	28	0.72	0.94
Dependent variable	14	0.82	0.85

Table 2: Bi Variate Correlation Matrix

Variable	ms	em	Pm	ci	Sm	cf	perf
ms	1.000						
em	0.409*	1.000					
pm	0.340*	0.179*	1.000				
ci	0.330*	0.409*	0.470*	1.000			
sm	-0.041	-0.343*	0.028	-0.060	1.000		
cf	0.175*	0.085	0.303*	0.270*	0.088	1.000	
perf	0.361*	0.457*	0.454*	0.435*	-0.025	-0.067	1.000

* Significant at 0.05 level ($p<0.05$)

It is evident from the last row of correlation matrix that firm's performance (perf) is positively correlated with four independent variables *viz*, management support (ms), employee management (em), process management (pm) and continuous improvement (ci) and negatively with supplier management (sm) and customer focus (cf). The results indicate that ISO firms need to give more focus to strengthen supplier relationships and must make sincere efforts to meet the customer requirements. The managers of organisation seem to be unaware of customer requirements and supplier needs indicated by negative values of correlation coefficients between perf and customer focus (cf) and perf and supplier management (sm). This finding reveals ISO implementation has not considered the requirements of all the stakeholders.

Regression Analysis

Multiple regression method was carried out in SPSS to study the causality between dependent and independent variables. The results are discussed on Table 3.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.669	.448	.365	2.79

The model summary Table 3 shows the results of regression with six independent variables on one composite dependent variable *viz* firm's performance. The above model shows value of R^2 value of 0.448, which means 44.8 percent variance in performance, is explained by these six independent variables.

Six hypotheses that were formulated earlier were tested by checking the significance of regression coefficients (Table 4) obtained during multiple regression analysis. Table 4 gives the results of regression in SPSS.

The collinearity statistics indicate, the dataset is free from of multi-collinearity problems as all 'Variance Inflation Factor (VIF)' values are below 5. It is evident from the values of standardised coefficients and their corresponding p values that only three (H2, H3 and H6) of our six hypotheses were supported. Further multiple regression produces ANOVA table that indicates the significance of overall predicted regression model.

As the p value in the ANOVA Table 5 is less than 0.01, it can be concluded at 99 percent confidence level that the regression model estimated for the current data set is valid and adequate. The regression equation can be written as:

OP = - 4.735 + 0.722 * em + 2.00 *pm - 0.796 * cf

Table 4: Regression Analysis

		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
Model		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-4.74	15.759		-.300	.765		
	ms	.249	.368	.092	.676	.503	.747	1.338
	em	.722	.302*	.349*	2.392	.022	.647	1.545
	pm	2.00	.778*	.359*	2.570	.014	.708	1.413
	ci	.719	.596	.176	1.207	.235	.651	1.536
	sm	.288	.296	.124	.973	.336	.858	1.166
	cf	-.796	.357*	-.280*	-2.228	.032	.876	1.141

* Significant as p<0.05 ; Dependent variable: Organisational Performance

Table 5: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	253.144	6	42.191	5.407	.000
	Residual	312.091	40	7.802		
	Total	565.234	46			

The three independent variables 'Management Support,' 'Continuous Improvement' and 'Supplier Management' were not included in the regression model as they have insignificant effect on dependent variable. The promoters/managers of these rice mills must take a note of this finding and work consciously to improve the levels of the indicators (Appendix-

A) identified under these constructs. Further the negative coefficient of 'Customer Focus' must be addressed with caution, which is against the general TQM belief.

Comparative Analysis

The analysis of difference in means of TQM practices between ISO and Non ISO rice mills was carried out using two sample Z- test on summated scores of individual TQM practices at 0.05 significance level. The results are reported in Table 6 below.

It is evident from the Table 6 that as all the z values surpass critical value of 1.96 indicating that the level of TQM practices in ISO-certified rice mills are significantly better than Non-ISO certified rice mills. This brings us to an important conclusion of this study that ISO firms are slowly moving towards TQM culture.

Table 6: Z-Test Results on TQM Practices

TQM Practices	Mean Scores		Z -Value	Sig.
	ISO	Non-ISO		
Management support	28.4	25.5	6.14	0.00
Employee management	21.3	16.9	6.59	0.00
Process management	19.7	17.3	5.91	0.00
Continuous improvement	17.5	15.7	5.51	0.00
Supplier management	24.1	22.6	2.79	0.01
Customer focus	14.8	12.5	5.94	0.00
Organizational performance	64.9	56.0	8.55	0.00

$p<0.05$ for all variables

Conclusions

This study used quantitative analysis in SPSS and revealed positive correlation between independent variables (Management support, Employee management, Process management, Continuous improvement) and dependent variable (performance of rice industries). A causal relationship was estimated between the dependent and predictor variables using multiple regression analysis. 'Employee Management,' 'Process Management' and 'Customer Focus' were found to be most critical determinants of organizational performance. The other three factors 'Management Support,' 'Continuous Improvement' and 'Supplier management' are not significantly affecting the performance.

If TQM practices and policies are applied in true essence in rice industries, they will contribute in their performance in terms of quality and profitability. Results of the study indicate that top management must support vision and mission of organisation. The management must emphasise continuous improvement in all the activities carried out by organisation. Small improvements in processes must be encouraged and teams must be formed to address the shortcomings in the processes. The relationship with the supplier must be improved and top management must address their needs. Thus, the study reveals gaps in TQM practices and helps the top management of these firms to initiate some efforts to increase productivity and quality of their products. The study also revealed through statistical comparison test that ISO certification is truly a step towards TQM. Though ISO certification is essential for exporting mills, it is evident that these firms can perform still better if they focus on six aspects of TQM in an integrated manner identified in this study.

Limitations

The current study has considered a very small sample due to operational and time constraints to derive the conclusions. The study assumed linear association between TQM practices and performance measures. The analysis is based on perception data, which may not be accurate. The longitudinal study may give better insights as impact of TQM is felt over a longer time span.

References

Anderson, J.C., M. Rungtusanatham, R.G. Schroeder, S. Devaraj. "A Path Analytic Model of a Theory of Quality Management Underlying the Deming Management Method: Preliminary Empirical Findings." *Decision Sciences.* (1995): 637–658.

Bohan, G. "Whatever happened to TQM? Or How a Good Strategy Got a Bad Reputation." *National Productivity Review*. (1998): 3–16.

Bou, J. and C. Baltrain. "Total Quality Management, High-Commitment Human Resource Strategy and Firm Performance: An Empirical Study." *Total Quality Management and Business Excellence.* (2005): 71-86.

Bradley, M. "Starting Total Quality Management from ISO 9000." *The TQM Magazine.* (1994): 50–54.

Choi, T.Y. and K. Eboch. "The TQM Paradox: Relations among TQM Practices, Plant Performance, and Customer Satisfaction." *Journal of Operations Management.* 17, (1998): 59–75.

Chong Y. and G. A. K. Lee. "TQM in Small Manufacturers: An Exploratory Study in China." *International Journal of Quality and Reliability Management*. (2003): 715-197.

Claver, E., J.J. Tari, J.F. Molina. "Areas of Improvement in Certified Firms Advancing Towards TQM." *International Journal of Quality and Reliability Management.* (2002): 1014–1036.

Claver, E., J.J. Tari, and J.F. Molina. "Critical Factors and Results of Quality Management: An Empirical Study." *Total Quality Management*. (2003): 91–118.

Conca, J.F., J. Llopis and J.J. Tari. "Development of a Measure to Assess Quality Management in Certified Firms." *European Journal of Operational Research*. (2004): 683–697.

Dean, J.W. and D.E. Bowen. "Management Theory and Total Quality: Improving Research and Practice through Theory Development." *Academy of Management Review.* (1994): 392–418.

Demirbag M. T., E. Tekinus, M. and Zaim. "An Analysis of the Relationship between TQM Implementation and Organizational Performance: Evidence from Turkish SMEs." *Journal of Manufacturing Technology Management.* (2006): 829-847.

Escanciano, C., E. Fernandez and C. Va´zquez. "ISO 9000 Certification and Quality Management in Spain: Results of a National Survey. *The TQM Magazine*. (2001): 192–200.

Evans, J.R. and W.M. Lindsay. "The Management and Control of Quality." *West Publishing Company, Minneapolis/ St. Paul*. 1993.

Flynn, B.B., R.G. Schroeder, and S. Sakakibara. "The Impact of Quality Management Practices on Performance and Competitive Advantage." *Decision Sciences.* (1995): 659–691.

Goetsch, D.L. and B.D. Stanley. "Understanding and Implementing ISO 9000 and ISO Standards." *Prentice Hall*. New Jersey: 1998.

Gotzamani, K.D. and G. D. Tsiotras. "An Empirical Study of the ISO 9000 Standards' Contribution towards Total Quality Management." *International Journal of Operations and Production Management.* (2001): 1326–1342.

Gotzamani, K.D. and G.D. Tsiotras. "The True Motives Behind ISO 9000 Certification. Their Effect on the Overall Certification Benefits and Their long Term Contribution towards TQM." *International Journal of Quality and Reliability Management.* (2002): 151–169.

Hayat, M. Awan. *An Evaluation of ISO 9000Registration Practices: A Case Study of Sports Goods.*

Jamshed H. Khan. "TQM Implementation in Pakistan, Revolutionary vs. Evolutionary Approach." *International Convention on Quality Improvement.* Lahore, Pakistan, Nov., 2000.

Johston, C.G. and M.J. Daniel. "Customer Satisfaction through Quality." *Canadian Business Review*. (1991): 12–15.

Kamran, Moosa. "Dissertation - Quality Culture in Pakistani Organizations." *Sheffield Hallam University*. UK, 1999.

Kaynak, H. "The Relationship between Total Quality Management Practices and Their Effects on Firm Performance." *Journal of Operational Management.* 21, (2003): 405–435.

Lee, T.Y., H.K.N. Leung, and K.C.C. Chang. "Improving Quality Management on the basis of ISO 9000." *The TQM Magazine.* (1999): 88–94.

Mahadevappa, B.A.K. "Quality Management Practices in Indian ISO 9000 Certified Companies: An Empirical Evaluation." *Total Quality Management and Business Excellence.* 2004, 295-305.

Masters, R.J. "Overcoming the Barriers to TQM's Success." *Quality Progress.* 1996.

McCabe, D. and A. Wilkinson. "The Rise and Fall of TQM: The Vision, Meaning and Operation of Change." *Industrial Relations Journal.* (1998): 18–29.

Reimann, C.W. and H.S. Hertz. "The Baldrige Award and ISO 9000 registration compared." *Journal for Quality and Participation.* January and February, (1996): 12–19.

Richard,Y.Y. and Hung et al. *International Business Review.* 2010.

Samson, D. and M. Terziovski. "The Relationship between Total Quality Management Practices and Operational Performance." *Journal of Operations Management.* 17, (1999): 393–409.

Santos-Vijande, M.L. and L.I. Alvarez-Gonzalez. "TQM and Firms Performance: An EFQM Excellence Model Research Based Survey." *International Journal of Business Science and Applied Management.* 2(2), (2007): 1–21.

Sila, I. and M. Ebrahimpour. "Examination and Comparison of the Critical Factors of Quality Management (TQM) across Countries." *International Journal of Production Research.* (2003): 235–268.

Skrabec, Q. R. J. "Quality assurance re-visited." *Industrial Management.* November and December. (1999): 6–9.

Sila, I. "Examining the Effects of Contextual Factors on TQM and Performance through the Lens of Organizational Theories: An Empirical Study." *Journal of Operations Management*. (25), (2007): 83–109.

Sohail, S.A.H. "TQM Practices and Organizational Performances of SMEs in Malaysia." *Benchmarking - an International Journal*. (2003): 37-53.

Sousa, S.D, Aspinwall, Elaine, Sampaio, A. Paulo and Rodrigues, A. Guimaraes. "Performance Measures and Quality Tools in Portugese Small and Medium Enterprises: Survey Results." *Total Quality Management and Business Excellence.* (2005): 16(2): 277-307.

Spencer, B.A. "Models of Organization and Total Quality Management: A Comparison and Critical Evaluation." *Academy of Management Review.* (1994): 446–471.

Stephens, B. "Implementation of ISO 9000 or Ford´s Q1 Award: effect on Organizational Knowledge and Application of TQM Principles and Quality Tools." *The TQM Magazine*. (1997): 190–200.

Stevenson, W.J. Production/Operations Management, Fifth Edition. Irwin, Chicago, IL, 1996.

Sun, H. "Total Quality Management. ISO 9000 Certification and Performance Improvement." *International Journal of Quality and Reliability Management.* (2000): 168–179.

Taylor, W.A. "Organizational differences in ISO 9000 Implementation Practices." *International Journal of Quality and Reliability Management.* (1995): 10–27.

Taylor, W.A. and G.H. Wright. "A Longitudinal Study of TMQ Implementation: Factors Influencing Success and Failure." *Omega.* (2003): 97–111.

Tummala, V.M.R. and C.L. Tang. Strategic Quality Management. Malcolm Baldrige and European Quality Awards and ISO 9000 Certification: Core Concepts and Comparative Analysis. *International Journal of Quality and Reliability Management.* 1996.

Walton, M. "The Deming Management Method." *Dodd Mead*. New York, NY: 1986.

Whalen, M.J. and M.A. Rahim. "Common Barriers to Implementation and Development of a TQM Programme." *Industrial Management.* (1994): 19–21.

Wilkinson, A., T. Redman, and E. Snape. "Quality Management and the Manager: An Institute of Management Report." *Corby Institute of Management.*1993.

Withers, B.E. and M. Ebrahimpour. "Impact of ISO 9000 Registration on European Firms: A Case Analysis." *Integrated Manufacturing Systems.* (2001): 139–151.

Yusof, S. and E. Aspinwall. "TQM Implementation Issues: Review and Case Studies." *International Journal of Quality and Reliability Management.* (2000): 634–655.

Zhu, Z. and L. Scheuermann. "A Comparison of Quality Programmes: Total Quality Management and ISO 9000. *Total Quality Management.* (1999): 291–297.

Corporate Restructuring: Demerging Impact

Brahmadev Panda and P. Hanumantha Rao

Abstract

The Indian business environment has altered radically since 1991, due to decontrol and deregulation of the economic policies, the corporate India faced an unprecedented challenge and fierce competition. To accommodate the changing environment, the Indian business houses started corporate restructuring. Demerger as a corporate restructuring gained its momentum more and more in the last decade and as a strategic tool helps the companies to stay focused and improving its revenue generation. In this backdrop the present paper seeks to examine the pre demerger and post demerger revenue performance of the demerged company with the help of financial measuring tools.

Key words:

Corporate restructuring, Demergers, Demerged Company, Resultant Company, Revenue Generation.

Brahmadev Panda, Assistant Professor, Finance Department, Institute of Management and Information Science, Swagat Vihar, Bankuala, Bhubaneswar-751002, Odisha, Email: bpanda@imis.ac.in, brahmadev.panda@gmail.com

Dr. P. Hanumantha Rao, Associate Professor-Finance, Institute of Management and Information Science, E mail id: p_rao@imis.ac.in, hanu_finance@yahoo.com

Demerger as a concept first invented in America way back in 1920s. In India demerger as a concept became popular after the deregulation of policies happened in 1991. Slowly demerger emerged as a favourite corporate strategy for many Indian business houses. Demerger as a corporate strategy is one of several ways through which a firm may divest a division and improve its focus on its core operation. A demerger is the opposite of a merger. A demerger results where a corporate enterprise dispossesses of one or more of its business units to any other corporate body, whether existing or newly formed for the purpose. The Company, whose division is transferred, is termed as the Demerged Company and the Company to which the division is transferred is termed as the Resulting Company. Demerger companies often have to contract or diversify their size of operations in certain occasions such as when a division of the company is not performing up to the expectation of the stakeholders, or because it no longer fits into the firm's strategic policies, or give effect to rationalization or specialization in the manufacturing process or to become big and increase their profit margin. Sometimes it

may also happen to undo a previous merger or acquisition which proved unsuccessful. Demerger as a corporate restructuring can be taken place in various forms such as spin offs, split offs, split ups etc.

Large business houses sometimes hinder entrepreneurial initiative, sideline core activities, reduce accountability, and promote investment in non core activities. There is an increasing realization among companies that demerger may allow them to strengthen their core competence and realize the true value of their business. After the drive down the mergers and acquisitions avenue, India incorporations, has turned into the road of demergers as it speeds towards corporate restructuring. In the recent times many demergers happened as a result of family disputes such as Reliance Industries Ltd., and Bajaj Group. Many of the companies of the DCM group which came back to life from the original demergers carried out more demergers. The demerger of L&T's cement business into a new company (Ultratech Cement) has generated lot of interest and the demerger of Tata Consultancy Services Ltd. from Tata Sons Ltd.

The Companies Act and Demerger Process

The term "demerger" is not defined under the companies Act, 1956. Demerger may be achieved either by:

- Sale of the whole or substantially whole of an undertaking in terms section 293(1) (a) of the companies Act; or
- As a part of a scheme of compromise or an arrangement in terms of sections 391 to 393 of the companies Act, 1956.
- Sale of the whole or substantially whole of an undertaking of a company may be achieved by:

(1) Approval by the board of directors of the transferer company

(2) Further obtaining approval of the company, by passing a special resolution.

The following procedures are adopted in case of demergers:

- Demerger forms part of the scheme of arrangement or compromise within the ambit of section 390, 391, 392, 393, and 394 besides Sec. 394 A of companies Act.
- Demerger is most likely to attract the other provisions of the companies Act, envisaging reduction of share capital comprising Sec. 100 to 105.
- The company is required to pass a special resolution which is subject to the confirmation by the court by making an application.
- The notice to the shareholders convening the meeting for the approval will usually consist of the following detail:

(a) Full details of the scheme.

(b) Effect of the scheme on shareholders, creditors, and employees.

(c) Details of the valuation report

- An application has to be made for approval of the High Court for the scheme of arrangement.
- It is necessary that the Articles of Association should have the provision of reduction of its Share Capital in any way, and its Memorandum of Association should provide for demerger, Division or split of the company in any way. Demerger thus, resulting into reduction of companies' share capital would also require the company to amend its Memorandum of Association.

Reasons for Demerger Decisions

Demerger as a strategy, whether it may be a Split up or Split off or Spin off, intends to trim size to sharpen its core competency for efficiency and growth. Since many big business houses have been losing focus and not attaining the right kind of valuation in the market as expected, this strategy has been considered to be a better strategic tool in the corporate survival game. The rationale behind the demerger is to enhance the overall return and revenue performance of the company. According to Thomas Kirchmaier (2003), at first sight, it is far from obvious how a simple break-up of an organization into smaller units would create value. The demerger of a group brings greater investor focus on to the subsidiary company and its potential becomes clearly defined. Most of the parent companies does not enjoy any positive synergy between them and their subsidiaries, neither their size brings them a competitive edge over other players in the market. At this point of time a demerger can work as a miracle for both the parent and subsidiary

company, their negative synergy and diseconomies of scale can be eliminated. Still then a demerger has plenty of reasons, which can be categorized.

- **To raise additional equity:** Demerger as a corporate restructuring technique, which involves the separation of business unit or subsidiary from the parent can help a company to raise additional equity funds from the market.
- **Financial Performance Improvement:** From an organizational point of view, demerger allows to increased management focus on their core area, elimination of misfits in the strategic focus, which helps the organization to improve their financial performance.
- **Reduce Internal Competition:** Also separating a subsidiary from its parent can reduce internal competition for corporate funds. For investors, that's great news it curbs the kind of negative internal wrangling that can compromise the unity and productivity of a company.
- **Corporate Governance Improvements:** Value creation through improvements in the role and function of the head office, improvements in the structuring of managerial incentives and more effective market based governance mechanisms due to increased transparency.
- **Dismantling of Conglomerates:** Generally a big conglomerate carrying out dissimilar business activities may likely transfer one or more of its existing activities to a new company to achieve objectives like removing inefficient organizational structures, elimination of negative synergies.

Objective of the Study

The main objective of the article is to study the impact of demerger on the return and revenue performance of the demerged company in India in the last decade. Every business house concentrate on revenue and return and for which they plan for the corporate restructuring. Does demerger as a corporate restructuring strategy equips the organization to get sustained revenue results? Whether this corporate strategy has a strong impact or not on the earnings of the demerged company is difficult to be answered unless the performance of the two phases i.e. pre and post-demerger is weighed and compared. Hence, the present study intends to compare the return and revenue performance of the demerged companies after the demerger takes place with that of their pre-demerger states.

Hypothesis of the Study

The null hypothesis [H0] for the study is ¯There is no significant difference in the revenue performance of the firms in the pre-demerger and post-demerger period.

Review of Literature

The theoretical literature examining the impact of demerger does not yield conclusive evidence on the revenue performance of the demerged companies. Much work has been done on mergers and acquisitions but very little have been done as far as demerger is concerned. Kelly, S.T. (2002) made a group of barriers that effects divestiture and found out six stages, which helps in making an effective divestiture decision. The companies analyze a number of aspects related to accounting, legal, tax, risk and regulatory frameworks, before setting their decision to divest. It is suggested the companies' goal at every step must be evaluated and compared to ensure organization's value generation capacity.

Dittmar, A. (2003) assessed about the decisions taken by the firm regarding their initial capital restructure in a corporate spin-offs. The effort was put to identify whether there remains an optimal or target capital structure for a firm and how it chooses its leverage to achieve that target. Though, the analysis was left indecisive due to the obstacles caused by the deviations from the firm's target leverage ratio because of their operating and financial decisions.

Muller, M. (2003) has identified the five major determinants to choose the optimal divestiture methods. He evaluated different modes of disaggregation to create shareholders value and its benefits as well as its shortcomings. He cited an inference that "on an average parent companies and subsidiaries outperform the market, particularly after spin-offs and equity carve-outs. Tracking stocks perform along with the market."

Mallick, A.K. and Rakshit, D. (2006) made a purposeful comparison between the pre-demerger and post-demerger financial performance of Dabur India Ltd., by using traditional as well as modern method like EVA. In this study, it was examined that the financial performance of Dabur India Ltd,

has improved compared to its pre-demerger period. They made a conclusion that demerger letting the companies' impose widened control, create value for the firm.

Rakshit, D. and Sujit, G. (2010) made a comparative financial and operational performance of JK Industries. Here the financial and operational efficiency is measured by comparing the pre-demerger and post-demerger period with the help of the traditional and modern financial measuring methods. They found that the companies are getting better financial and operational efficiency after the demerger.

Most of the studies here are limited to only one case and inference is derived. But this study is unique in the sense that it deals with four cases of demerger from four different sectors in different years.

Data Base and Methodology

The main source of the data required for this study has been the secondary one consisting of corporate financial reporting includes published annual reports of the companies, other published information considered reliable and authentic and financial ratios from the respective company websites. Resorting to certain financial measuring tools such as Return on Capital Employed (ROCE), Return on Net Worth (RONW), Return on Investment (ROI), Earnings Per Share (EPS), Net Profit Margin is used to analyze and compare the revenue performance prior to demerger and post to demerger.

Population: The size of the population is all the companies which are listed with Bombay Stock Exchange and filed their scheme of demerger with Registrar of companies during the period from 2000 to 2010. Either demerged or resulting companies which merged with other companies under the same scheme of their demerger are not considered in the study.

Sample Size: 4 companies were taken as sample for the study on the random sampling basis. The sampling design is case study method of analysis, hence four cases were considered. These companies are:

(a) Dabur India Ltd. (demerged on July 2003)

(b) Eveready Industries Ltd. (demerged on April 2004)

(c) Great Eastern Shipping Company Ltd. (demerged April 2006)

(d) Zee Entertainment Enterprise Ltd. (demerged November 2006)

Case-1-Dabur India Ltd.

Demerged company: Dabur India Ltd.

Resulting company: Dabur Pharma Ltd.

Demerger Year: 2003

Introduction: Dabur India Ltd is one of the oldest companies in India having more than 100 years of existence. Dabur India Ltd., having interest in mainly divisions like fast moving consumer goods (FMCG) and pharmaceutical business. Post-demerger, the FMCG business, which is within Dabur India and concentrated on its core competencies in personal care, healthcare and ayurvedic specialties while the new pharmaceutical company, Dabur Pharma Ltd., focused on its

Table 1a

Dabur India Ltd.- Pre Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2001-02	5.4	12.6	16.6	2.3
2002-03	6.6	16.1	20.6	3
Average	6	14.35	18.6	2.65

Table 1b

Dabur India Ltd.-Post Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2004-05	11	31.3	43.5	5.4
2005-06	12.2	39	46.1	3.7
2006-07	13.5	45.7	61.3	3.3
2007-08	13.9	47.6	55.3	3.9
2008-09	13.8	39.4	47.7	4.5
2009-10	14.7	45.7	53.5	5.8
Average	13	41	51	4.43

enterprise in allopathic, oncology formulations. The core Objective behind this strategical move was to provide greater focus and growth to both the FMCG and Pharmaceutical business of the Dabur group and was to allow the investors to benchmark performance of these two entities with their respective industry standards. Let's examine the growth in terms of return and revenue from the financial data. The financial data is given in Table 1a and1b.

Analysis of Revenue Performance: From the above data (Table-1a and 1b), it can be scanned that the average profit margin position, which shows the relationship between profit after tax and the total sales revenue, looks very strong after the demerger. The post-demerger average profit margin had gone up with 116 percent growth rate as compared to the pre-demerger period. The profit margin of the year 2008-09 has declined little from its previous year due to the recessionary effect. A similar trend is also observed in case of average ROCE, i.e. ratio between the profit after tax and total capital employed looks strong in post-demerger period. The post-demerger average ROCE has gone up with 115 percent growth rate as compared to pre-demerger period. It clearly shows that earnings performance and operational efficiency has increased after the demerger. The RONW i.e. ratio between the profit after tax and the net worth, the average RONW of demerger period is 174 percentages more than the pre-demerger average. It signifies the shareholders have gained significantly after the demerger. In case of EPS i.e. ratio between the profit available to shareholders and their equity, the average EPS during post-demerger period is almost double compared to the pre-demerger period. This means the company has utilized its capital more efficiently after the demerger. In the above table, data for the year 2003-04 has not taken into account, due to it was the demerger year and taken as the devisor. So, it shows that the performance after demerger is better than the pre-demerger stage.

Case-2-Eveready Industries Ltd.

Demerged company: Everyday Industries Ltd.

Resulting company: McLeod Russel India Limited

Demerger Year: 2004

Introduction: Eveready Industries India Ltd., which is the flagship of the Khaitan group, the company has interests in the battery business and tea business. The company was not performing well in terms of its return and registered a loss for the fiscal 2003-04, the reason behind it was having high debt on its books, downturn in the tea cycle and the tea prices were going southwards. In order to improvise its return and revenue performance, the company decided to demerge itself into two separate units. Post-demerger the Eveready Industries Ltd. continued to deal with batteries and flashlights and focused on its core competence. Other one was McLeod Russel which took care of tea business. Let's examine the return and revenue performance with the financial data. The financial data is given in the table- 2a and 2b.

Analysis of Revenue Performance: From the above data (Table 2a and 2b), it can be scanned that in the pre-demerger period the company was suffering with losses. The profit margin in the year 2001-02 and 2003-04 were negative, where as in the year 2001-02 and 2002-03, the company is having a negligible positive profit margin. The company registered huge loss of ₹ 153 crore in the fiscal 2001-02; due to which the PAT margin is -19 percent and the average profit margin becomes

Table 2a

Eveready Industries Ltd. - Pre Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2000-01	1.35	0.9	2.66	3.28
2001-02	-19	-10	-25-41	-27.49
2002-03	1.29	0.79	1.82	2
2003-04	-0.04	-0.026	-0.05	-0.07
Average	-4.1	-2.08	-5.24	-4.45

Table 2b

Eveready Industries Ltd. .-Post Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2005-06	10.95	7.86	12.56	11.1
2006-07	-1.73	-1.24	-2.177	-1.85
2007-08	-2.2	-2.02	-3.49	-2.66
2008-09	2.26	2.27	3.49	2.67
2009-10	14.59	14.93	21.31	19.56
Average	5.96	5.45	6.33	5.7

negative in pre-demerger period. If we ponder into the post-demerger state the average PAT margin has increased from -4.1 to 5.96, which looks good, still the company has incurred minimal losses in the year 2006-07 and 2007-08 in the post-demerger state. But the PAT margin in the year 2009-10 and 2005-06 is very good. In case of average ROCE, the post-demerger state has improved as compared to the pre-demerger state, which indicates that, the earnings performance and operational efficiency position of the company has improved in the post-demerger period. But in the post-demerger state, the company was having also a negative ROCE in the year 2006-07 and 2007-08 due to loss incurred by the company. In case of average RONW, the pre-demerger state has a negative figure where as the post-demerger state has a positive figure, still the shareholders were not gaining much in the post-demerger state, as the RONW in the year 2006-07 and 2007-08 was negative. As far as EPS is concerned, in the pre-demerger period the average EPS is negative and in the post-demerger period the EPS is positive. Overall we can say the shareholders' gain and profitability has shown a growth trend after demerger except only in the year 2006-07 and 2007-08. In these two years the company incurred losses due to a very steep and unprecedented increase in the raw material prices and lower volumes due to consumer resistance to price increases necessitated by cost push. In the above table, data for the year 2005-06 has not taken into account as it was the demerger year. By carefully analyzing the revenue performance of the company, we can comment that there has been a great turnaround in the post-demerger period as compared to pre-demerger period.

Case-3- Great Eastern Shipping Company Ltd.

Demerged company: Great Eastern Shipping Company Ltd.

Resulting company: Great Offshore Ltd.

Demerger Year: 2006

Introduction: Great Eastern Shipping Company Ltd., India's largest private sector shipping company was incorporated on 3rd August 1948. The company had two main divisions, one is shipping and the other one is offshore oilfield service. The demerger happened in the year 2006, which created two focused companies, GE Shipping Company Ltd., had taken care the shipping business and the other one i.e., Great Offshore Ltd., taken care the offshore, oilfield service business. The demerger helped to create two focused companies, thereby helping them to harness their full potential, as to chart a growth profile consistent with what their respective business environments offer. Let's examine the return and revenue performance of the GE shipping Ltd., after the demerger from the financial data. The financial data of GE Shipping Company Ltd., is given below.

Analysis of Revenue Performance

From the above financial data (Table-3a and3b), it can be scanned that the average profit margin of the post-demerger period has gone up with 13 percent growth rate as compared to the pre-demerger state. The average profit margin growth percentage rate might be much better, if the year profit margin of the year 2009-10 would have been better. In the post-demerger period, year 2007-08 and 2008-09 has a very good profit margin. If we

Table 3a

GE Shipping Co. Ltd. - Pre Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2001-02	16	9	17	8.8
2002-03	22	10	19	11.4
2003-04	33	15	35	24.3
2004-05	38	19	44	42.34
2005-06	36	20	41	55.07
Average	29	15	31	2009-10
				28

Table 3b

GE Shipping Co. Ltd. -Post Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2007.08	42	20	37	89.11
2008-09	41	17	30	90.94
2009-10	18	4	7	25.99
Average	33	14	24	69
				4.5

study the average ROCE, then the post-demerger average has declined as compared to the pre-demerger period. The average ROCE in post-demerger period has decreased due to the decrease in the net profit in the year 2009-10. Same thing happened in case of average RONW, the post-demerger average has declined as compared to pre-demerger state. In the post-demerger period, performance in the year 2009-10 has not been very good. If we take the cases of Profit margin, ROCE and RONW all together in the post-demerger period, then we can find that the company has performed very poorly in the year 2009-10. At the dawn of the financial year 2009-10, there was a great deal of uncertainty prevailed in the global economy, which affected the shipping industry hugely. Consequent to the collapse of global financial system, average world oil demand dipped and the tonnage demand both in the tankers and the dry bulk segments also decreased. FY 10 turned out to be a turbulent year for tanker owners and GE shipping company was no exception. Over all the company has performed well after demerger.

Case-4- Zee Entertainment Enterprise Ltd

Demerged Company: Zee Entertainment Enterprise Ltd

Resultant Company: Zee News Ltd

: Wire and Wireless India Ltd

Demerger Year: 2006

Introduction: Zee Entertainment Enterprise Ltd is the largest Indian media and entertainment company, which is a subsidiary of Essel Group. Zee Entertainment Enterprise Ltd (earlier known as Zee Telefilms Ltd.) was having three wide undertakings such as cable distribution network, news and regional broadcasting and direct consumer business undertaking. The company demerged in the year 2006 and two new independent companies came into force as ZEE News Ltd., and Wire and Wireless India Ltd. Post-demerger Zee Enterprise Ltd., took care of its direct consumer business undertaking and global broadcasting business where as Zee News Ltd., took care of news and regional broadcasting business and Wire and Wireless India Ltd., took care of the cable distribution network business. Zee Entertainment Enterprise Ltd., went for demerger in order to strengthen the long term business prospects of each individual business, by providing focused management attention. Let's examine the company's revenue performance after the demerger. The financial data of Zee entertainment Enterprise Ltd., are given in the Table 4a and Table 4b.

Table 4a

Zee Enterprise Ltd. - Pre Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2002-03	17.8	12.1	7.6	2.29
2003-04	23.4	10.5	6.2	2.87
2004-05	23.4	10.9	8.3	3.93
2005-06	7.8	6.3	5.1	1.67
Average	18	10	7	3

Table 4b

Zee Enterprise Ltd. -Post Demerger State

Year	Profit Margin	ROCE (%)	RONW (%)	EPS
2007.08	25.8	21.4	13.9	6.81
2008-09	23.5	18.1	13.2	7.14
2009-10	40.4	20.7	19.8	12.8
Average	30	20	16	9

Analysis of Revenue Performance: From the above financial data (table-4a and 4b), it can be scanned that the average profit margin of the post-merger state is almost double as compared to the pre merger state. The growth in the average profit margin in the post-demerger is very strong and the post-demerger three years has shown a good growth trend. If we look at the pre-demerger years then profit margin in the year 2005-06 has drastically declined as compared to its previous year 2004-05, But if we see the profit margin of the year 2007-08, then there is a growth of 230 percentage as compared to the year 2005-06. That means the profitability has increased at a phenomenal growth rate after the demerger. The average ROCE figure in post-demerger has fared tremendously as compared to the pre-demerger state; the growth rate is 100 percentage. Which reflects the earnings performance and operational efficiency position

of the company has improved in the post-demerger period. In case of average RONW, the post-demerger average has grown with 128 percentage as compared to the pre-demerger period. This shows the shareholders gain has increased and they are benefited due to the demerger. The EPS is showing also the same trend, the average EPS in the post-demerger state has increased with 200 percentage as compared to the pre-demerger state. Overall the demerger has a positive impact on the revenue performance of the company.

Conclusion

After analyzing the return and revenue performance of the four different cases in different sector in last decade, we come to conclusion that all these companies have done very well in the chosen parameters such as Return on Capital Employed (ROCE), Return on Net worth (RONW), Earnings per Share (EPS), Net Profit Margin. It was noticed that there was a remarkable improvement in these parameters in the post-demerger period as compared to pre-demerger period. In fact, demerger as a corporate strategy has been used very well by all these companies. So, we find a very significant improvement in the return and revenue performance of the firms in post-demerger period as compared to pre-demerger period.

Limitations of the Study

- Financial data and results taken for the study are limited to the belief that they expose the reality and an accurate picture.
- Here the study is based upon four cases as sample study, which may restrict the generalization of the results; hence the readers may cautiously draw broader conclusions.
- No doubt demerger as a strategy can improve the return and revenue performance but the organization should have a strong research and development, marketing strategies and customer relationship management.

Scope for future research

- Future research can be done by taking more cases into consideration.
- Future study can be done where both mergers and demergers have taken place in a company simultaneously.

References

Anslinger, P., J. Jenk, and R. Chanmugam. "The Art of Strategic Dis-investment." *Outlook Journal*. November 1, (2003): 23-33.

Dittmar, A. "Capital Structure in Corporate Spin-offs." *ICFAI Reader.* October, (2003): 59-63.

Kar R.N. "Mergers, Acquisitions and Corporate Restructuring." 1st Edition, *International Book House Pvt. Ltd*., 2011.

Kelly, S.T. "Corporate Divestiture Gain as Value-Creator." *Financial Executive.* December, (2002): 17-22.

Mallick, A.K. and D. Rakshit. "Corporate Restructuring through Demerger: A Case Study." *Finance India*. Volume XX, No. 4, (2006): 1321-1338.

Muller, M. "Disaggregation: Which way to choose?" *ICFAI Reader Demerger.* (2003): 37-42.

Rakshit, D. and S. Ghosh. "Demerger: Sailing with the Global Wind." *NSHM Journal of Management Research and Application*. Volume 2, Number 1, (2010): 22-31.

Singh, R., A. Bhowal, and V. Bawari. "Impact of Demerger on Shareholders' Wealth." *Enterprise Risk Management*. Volume 1, Number 1, (2009): 44-59.

Stewart, G. and Bernet III. "EVA TM: Fact and Fantasy." *Journal of Applied Corporate Finance*. Summer, Volume 7, Number 2, (1994): 24-34.

Tuma, I. "Determinants and Consequences of Equity Restructurings." *ICFAI Reader.* June, (2003): 29-34.

Venkateshwarlu, M. and N. Kumar. "Value Creation in Indian Enterprises - An Empirical Analysis." *The ICFAI journal of Applied Finance.* Volume 10, Number 12, (2004): 18-31.

Websites

<http://www.dabur.com> <http://www.eveready industries .com>

<http://www.greatship.com> <http://www.zeetelevision.com>

<http://www.moneycontrol.com> <http://www.legal service india.com>

CRM Environment: State Bank of India

Arup Kumar Baksi and Bivraj Bhusan Parida

Abstract

Perception of service quality is extremely individualistic in nature. The service organizations are redesigning stimulus to generate a desired level of perceived service quality (PSQ) amongst its customers. Empirical research works have explored the relationship between service quality and its possible consequences and its significance towards growth and profitability of service organizations. Adaptation of CRM philosophy over the last decade or so has been pivotal in realigning the marketing focus for the service organization. This paper attempts to explore the causal relationship between service quality (perceived) and behavioural consequences, specifically attitudinal loyalty and propensity-to-switch, in the CRM-driven banking environment of State Bank of India.

Key words:

Service Quality, Service Organization, Attitudinal Loyalty, Propensity to Switch, CRM, Relationship, Bank.

Arup Kumar Baksi, Assistant Professor, Department of Management Science, Bengal Institute of Technology and Management, Santiniketan, Sriniketan Bypass Road, P.O. Doranda, Pin-731236, Birbhum, West Bengal, Email: baksi.arup@gmail.com.

Dr. Bivraj Bhusan Parida, Reader and Head, Department of Tourism Management, The University of Burdwan, Golapbag, Pin-713104, Burdwan, West Bengal, Email: bivraj@gmail.com

Service quality has been recognised as a factor-critical by modern service organizations. The concept of service quality for intangible and heterogeneous services is starkly different from that of goods market where perception about service quality can be easily framed by the customers due to standardized tangible existence of the same. Therefore, for a service organization, creation of evidence is a must to allow customers frame perception about service quality. Comparative superior service quality offers a firm to differentiate themselves in competitive markets (Karatepe et al, 2005). Perception of service quality has been conceptualized to be an attitude towards interpreting superiority of the service (Zeithaml and Bitner, 2000). Ndubisi (2003), was of the opinion that customers' perception of superior service is related with customers' perceived mutualism (i.e. customer-firm interaction) associated with customer support resulting in organizational growth and increase in market share and profit. A service organization can gain competitive advantage over its competitors by ensuring repeat patronization of customers on the ground of superior perceived service quality (Park et

al, 2004, Morash and Ozment, 1994). Service quality has been considered as antecedent to behavioural intentions of the customers with customer satisfaction as an intermediary variable. Positive behavioural consequences result in customer retention, repeat purchase, long-term attitudinal loyalty and self-endorsement of the service brand being used. On the other hand negative behavioural consequences are associated with customers' intention to switch to a different service provider and negative endorsement. Therefore study of behavioural pattern of customers availing intangible and heterogeneous services is extremely important for a service organization as long-term profitability of a service organization depends on successful retention of satisfied customers who will show attitudinal loyalty. At the same time, service organization must identify negative behavioural pattern, if any, exhibited by the customers as it can inhibit growth and profitability of the organization.

Augmentation of service quality has been vigorously pursued by the Indian banking sector in the post liberalization and banking sector reform phase. Compliance with Basel-II accord has been taken up. The competition has intensified with the advent of foreign banks and the gradual emergence and penetration of private sector banks. Like other service organizations, the Indian banking sector also started adopting the CRM philosophy which focuses on customer retention rather than customer acquisition. Therefore the underlying theme of CRM also refers to nurture of positive behavioural pattern of customers.

State Bank of India, the largest nationalized public sector bank, started its modernization process in the late '90s. The basic objective of the project was to elevate the operational functions of SBI to a digital platform with satellite enabled electronic networking of branches and remote transaction points like ATM, internet banking, mobile banking etc. Another focal area of this modernization process was to expand the product/service domain of SBI and in subsequent periods it was observed that a number of cross-selling/up-selling product line has been added namely bancassurance, mutual fund, fixed-income securities, plastic money etc. Implementation of CBS to bring all its branches under a core network was completed by the year 2008. SBI did also undertake the behavioural and attitudinal transition of its employees by arranging collaborative training programme with TCS, mySAP CRM, KPMG etc. SBI's metamorphosis from a silos-based region centric banking operations to a complete technology-driven virtual-network based operation allowed its existing customers to experience new-age banking. Therefore, the study is extremely relevant from the bank's point of view as it tries to understand the changing behaviours of customers, who are much more informed now and exposed to quality services, and the possible impact of the same on growth and profitability.

Review of Literature

Over the years, exploration to enhancement of service quality has remained as the focal research object (Llosa et.al. 1998; Yavas et.al., 1997; Buttle, 1996, Julian and Ramaseshan, 1994, Avkiran, 1994; Rust and Zahorik, 1993; Cronin and Taylor, 1992, 1994; Kearns and Nadler, 1992; Crosby and Stephens, 1987; Parasuraman et.al. 1988; Lewis, 1989, 1993). Gaining sustainable competitive advantage over competitors through satisfying customer relationships has become one of the strategic weapons for a modern day service firm (Zeithaml et al., 2000). According to Grönroos (1982) service quality has been conceptualized as the potential difference between perceived and expected level of services as experienced by a customer involved in service transactions and its subsequent evaluations (ibid). Parasuraman, Zeithaml and Berry (1985, 1988, 1991), led the study of service quality and proposed the service quality gap framework and developed the SERVQUAL scale as a tool to measure intangible service quality.

Quite a few numbers of scholars did agree to the fact that service quality can be represented by a dual-dimension process (Grönroos, 1983; Lehtinen and Lehtinen, 1982)**.** The first dimension deals with what the service actually delivers and is referred to by PZB (1985) as "outcome quality" and by Grönroos (1984) as "technical quality." The second dimension deals with how the service is delivered. PZB (1985) described it as "process quality" while Grönroos (1984) termed it as "functional quality." Buttle (1996) found serious concerns with the number of dimensions as well as their consistency in different contexts. Carman (1990), conducted a study which involved five new dimensions of service quality (other than used by Parasuraman, Zeithaml and Berry) and was of the opinion that the dimensions which were considered for measuring service quality must satisfy the reliability and validity check before using them for commercial analysis. Woo and Ennew (2005)**,** meanwhile, found that in business services markets,

the dimensions were completely different. Service quality literature reveals incorporation of five service quality dimensions namely tangibles, reliability, responsiveness, assurance and empathy by Parasuraman, Zeithaml and Berry (1988) while framing the SERVQUAL scale to measure service quality. Bitner, Boom and Mohr (1994) were of the opinion that internal customers' (service employee) orientation towards external customers in terms of empathy, understanding of specific requirements and respect had a significant influence on perceived service quality. Sustaining competitive advantage depends on customers' trust and belief on quality services (Berry, Parasuraman and Zeithaml, 1994). In a study, portraying the behavioural consequences of service quality, Zeithaml (1996) linked positive behavioural intentions of customers with superior perceived service quality. According to Zeithaml (1996), positive behavioural intention stimulates customer retention which has been identified to have influence on profitability of a service firm. Berry et al (1994) patronized superior service which he considered as a profit-ensuring strategy because of its ability to retain and increase business volumes with existing customers by nullifying price competition and minimizing service delivery errors. Berry and Parasuraman (1997) hinted towards responsiveness as an important element in perceiving service quality. Poor perceived service quality is associated with increased rate of customer attrition resulting in cost elevation with respect to acquisition of new customers (Zeithaml et al, 1996).

Migration of customers from one service provider to another is quite detrimental for the growth and profitability of the firm as it blocks the flow of revenue from profitable customers (Keavney, 1995). Tax and Brown (1998a) were of the opinion that stability of firm-customer relationship depends on the ability of the firm to deal satisfactorily with negative behavioural attitudes like complaints. While most of the researchers referred to service failure as a potent cause of customer switching behaviour, Keavney (1995) pointed out that satisfied customers may also exhibit the same if they perceive comparatively superior service offered by a rival firm.

Conventional marketing philosophy which revolved around transactions involving the basic marketing mix elements (Kotler, 1997; Borden, 1965; Culliton, 1948), gradually paved way for relationship-based marketing which identified firms integrating in both forward and backward directions and creating networks (Webster 2000 Day 2000; Grönroos 2000; Gummesson 1999; Hunt 2000; Peck et al., 1999). Customer relationship management (CRM) was an offshoot to relationship marketing. CRM concept thematically goes beyond the process of just identification of valued customer, providing them with quality service and analyzing their preferences. Paul Gray and Jongbok Byun (2001) viewed CRM as a continuous flow of corporate changes in culture and processes that combine three focal areas: (i) Customer (ii) Relationship and (iii) Management. Richard Barrington (2008) viewed that CRM systems evolved as a system to track customer interactions with an objective to offer personalized products and services to the customer. Bateman and Snell (2001) observed that CRM is a business process which results in optimized profitability and revenue generation, while achieving customer satisfaction.

Customer relationship management stimulates acquisition and growth of customers with predominant emphasis on effective customer retention (Light, 2003). Over the years academic researchers tried to conceptualize and define CRM as a process focusing on successful retention of profitable customers by establishing and sustaining relationship. However a common and universal definition and domain identification is yet to be achieved (Boulding et al, 2005). One of the reasons that definition did not converge is the multi-dimensional aspect of CRM applicability and interaction between its critical components. CRM has been identified as integration of activities aimed towards creation and maintenance of sustainable and profitable relationship with customers (Reinartz and Kumar, 2003 Heide, 1994). CRM has been considered as a critical precursor to build up customer loyalty (Evans and Laskin, 1994), perceived to be a positive behavioural consequence of a service which is influenced by relationship (Macintosh and Lockshin, 1997; Chow and Holden, 1997; Sheth and Parvathiyar, 1995; Jackoby and Kyner, 1973). Customer loyalty as a behavioural consequence has earned considerable importance as studies revealed the positive effects of loyalty on the growth and sustenance of firms and as a result of which firms are strategically orienting themselves towards ensuring customer loyalty (Reinartz and Kumar, 2003, Gefen, 2003; Rawley and Dawes, 2000).

CRM as a philosophy integrates people (service employees and customers), process (service delivery mechanisms) and technology (the driver). Sandoe et al (2003) observed that

technology as CRM dimension has gained strength with the development of database management system which allowed the firms to store data chronologically (data warehousing) and retrieve relevant data with the help of query system (data mining). CRM became an integral part of e-commerce as technologies started to converge paving the path for greater interactivity (Peppard, 2000). Penetration of technology-based services among the customers has redefined the entire perspective of customer management (Tamminga and O'Halloran, 2000) as usage of internet (Yang and Fang, 2004), increased preference of customization (Jun and Cai, 2001) and de-intermediated self-services (Walters and Lancaster, 1999, Parasuraman, 2005) were on the rise. But over-emphasis of technology has led to the downfall of a number of firms which helped firms to realize that CRM has a greater process orientation compared to technology. The philosophy of CRM is to instigate a positive behavioural intention among retained customers and therefore CRM has evolved as a strategic process. CRM concepts and technologies have been widely accepted by the companies across the countries. It is extremely difficult to find a new customer in a mature economy but it is just as difficult to retain existing ones. Strategic implementation of CRM requires a definite framework. A strategic CRM framework was suggested by Sue and Morin (2001) involving initiatives, expected outputs and contributions. Another model of conceptual framework was developed by Plakoyinanaki and Tzokas (2002). Gartner Research (2001) developed a conceptual framework comprising eight building blocks identified as vision, strategy, valued customer experience, organizational collaboration, processes, information, technology and metrics. A brief review on CRM success and failure was conducted to evaluate the applicability and suitability of *Payne and Frow's (2006)* framework which focuses on organizations' desiring to build strong relationship with its customers. Galbreth and Rogers (1999) identified CRM as a technology-inflicted change in the business process which requires the support of proactive leadership. Customer Relationship Management is undergoing evolutionary changes and concepts like Customer Managed Relationship [CMR] are evolving *(Baksi, 2007)*.

Acknowledging the fact that CRM revolves around the successful integration of People, Process and Technology, a generic model can be designed to understand the changes in the CRM mix elements (people, process and technology) while initiating and implementing CRM activities (Table-1).

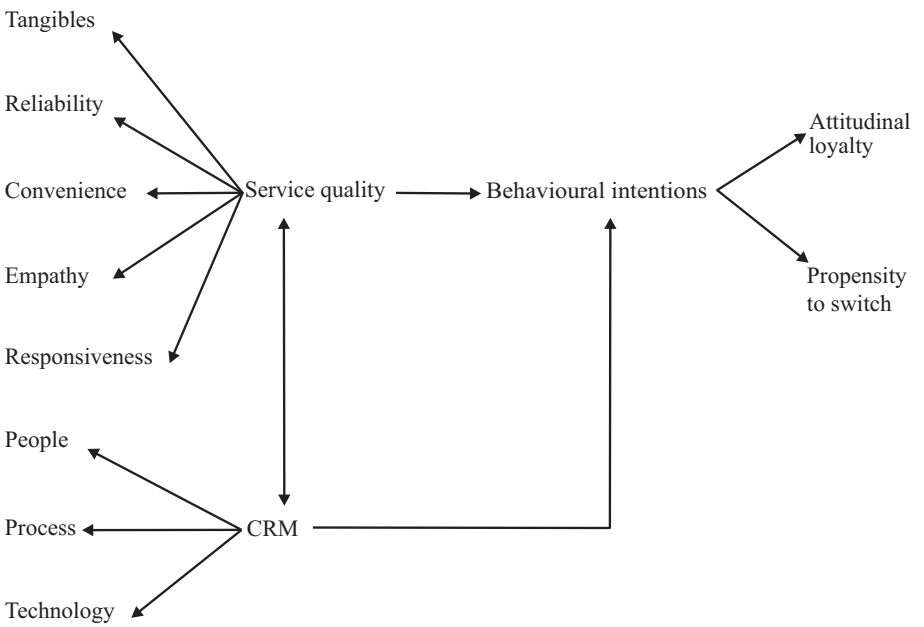
Table 1: Developing the right mix for People, Process and Technology

Key CRM Implementation Activities	Most Relevant Components
Determining business requirements	People, some process
Setting up the Project Management team	People, some process
Integrating legacy and other needed systems	Technology
Customizing the CRM software	People, Process & Technology
CRM system pilot	People, Technology
CRM system roll out	People, Technology
CRM system support	People, some process
Growing your CRM system	People, Process & Technology

Source: 'CRM Automation' ISBN: 0-13-008851-X, http://www.phptr.com

Convergence of technologies has allowed the 'process' component of CRM to harness the concept of 'Multi-Channel Integration (MCI' which has emerged as a service delivery wizard in recent times. Payne, (2005) considered MCI as a critical functional alignment of CRM process framework. The MCI process is a key activity as it translates the business strategy into value-augmented outputs. The MCI concept allows the customer to enter into interaction with their firms with more flexibility and create a 'unified view of the customer' (Payne, 2005). People who are in

Fig.1: Conceptual Model



charge of channel strategy preparation need to realize the two forms of structural changes:

(i) Dis-intermediation – where the business proposition does not consider intermediaries as critical points to create value for customers.

(ii) Re-intermediation – where a new generation of intermediaries have emerged which can effectively create more value compared to the previous channel structure namely 'info-mediaries' or web-enabled information agents which perform the analysis on behalf of the customer in the pre-purchase phase.

Conceptual Model

The conceptual model to be tested is as follows:

Service quality dimensions

Methodology

The study which was conducted on the State Bank of India (Bolpur and Santiniketan branches, West Bengal) with 178 usable response generated via a structured questionnaire (400 of them were distributed, 200 for each branch); investigates the relationship between the service quality (perceived) and customers' propensity to switch their existing service providers. To understand the perceived service quality of customers, SERVQUAL scaling technique has been used with adequate modification (done with exploratory factor analysis using principal axis factoring procedure with orthogonal rotation through the VARIMAX process) to fit the study with five identified dimensions namely tangibles (4 factors), reliability (5 factors), convenience (six factors), empathy (4 factors) and responsiveness (3 factors). The expected and perceived service quality score was summated over a 7 point Likert scale across the five identified dimensions and 22 factors of SERVQUAL instrument. To understand the 'propensity to switch' of the customers, the Behavioural Intentions Battery (BIB), developed by Zeithaml, et al (1996) was used whereby two variables were considered namely 'reduce business with bank (SBI)' and 'to shift some/whole of the business to a rival bank that offers better service quality.' To understand the CRM perspective of the bank (SBI), statements/questions were framed on three specific dimensions and factors included thereof: (i) People – Bankers (ii) Process – SWO (Single Window Offer), KYC (Know Your Customer) and MCI (Multi Channel Integration) and (iii) Technology – CBS (Core banking System), Mobile technology, ATM service and Internet. A seven (7) point Likert scale was used to evaluate the constructs. Random sampling technique was used to generate the response.

Table-2: Demographic Cross-Factors in Study

Demographic Variable	Demographic Characteristics	Kolkata	
		Frequency	%
Gender	Male	129	72.47
	Female	49	27.53
Age	≤ 21 years	18	10.11
	22-32 years	58	32.58
	33-43 years	66	37.07
	44-54 years	26	14.60
	≥ 55 years	10	5.64
Income	≤ ₹ 14999.00	21	11.79
	₹ 15000 - ₹ 24999.00	132	74.15
	₹ 25000 - ₹ 44999.00	14	7.86
	≥ ₹ 45000.00	11	6.20
Occupation	Service [govt./prv]	105	58.98
	Self employed	15	8.42
	Professionals	7	3.93
	Student	11	6.20
	Housewives	32	17.97
	Others [retd., VRS etc]	8	4.50
Educational Qualification	High school	0	0.00
	Graduate	148	83.14
	Postgraduate	22	12.35
	Doctorate and Others (CA, fellow etc)	8	4.51

Data Analysis

The demographic cross-factors revealed by the study are appended below (Table-2).

The Cronbach's alphas were calculated to assess the internal consistency of the scales used (both SERVQUAL and BIB) and the alpha values for both the scales were found to indicate adequate reliability (Nunnally, 1978) (Table-4).

The KMO measure of sample adequacy (0.819 and 0.709 respectively) indicates a high-shared variance and a relatively low uniqueness in variance (Kaiser 'and Cerny, 1979). Barlett's sphericity test (Chi-square=3123.987, $p<0.001$ for SERVQUAL and Chi-square=2098.222, $p<0.001$ for BIB) indicates that the distribution is ellipsoid and amenable to data reduction (Cooper and Schindler, 1998) (Table-5).

Table 3: Reliability Statistics

Scales	No. of Factors	á - value
SERVQUAL	22	.891
BIB	12	.872

Table 4: KMO and Barlett's Test

		SERVQUAL	BIB
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.819	.709
Bartlett's Test of Sphericity	Approx. Chi-Square	3123.987	2098.222
	Df	163.000	149.000
	Sig.	.000	.000

Table 5: SQ Score

P-E mean	Tangibles	Reliability	Convenience	Empathy	Responsiveness
score	+0.16	+0.83	+0.44	+0.08	+0.17
SQS			+0.336		

The service quality score [SQS] was obtained by taking the mean value of P-E (perception-expectation) score obtained by using a 7 point Likert scale, where '1' stands for 'strongly disagree' and '7' for 'strongly agree' for all the 178 responses across the five dimensions and twenty two factors of SERVQUAL scale (Table-5). The SQS did not reveal any gap i.e. a negative P-E score.

Bivariate correlation was conducted to understand the nature and strength of relationship between Service Quality Score (SQS) and Propensity to Switch (PTS) and between Service Quality Score (SQS) and Attitudinal Loyalty (AL). The results (Table-6 and Table-7) exhibit that there is a strong and negative relationship between service quality and propensity to switch (r= -.415**, p<.001) while a strong and positive relationship was exhibited between service quality and attitudinal loyalty (r=.735**, p<.001).

Simple regression analysis was used by considering service quality as independent variable and propensity to switch

Table 6: Correlation between Service Quality Score & Propensity to Switch

		SQS	PTS
SQS	Pearson Correlation	1.000	-.415**
	Sig. (2-tailed)		.000
	N	178.000	178
PTS	Pearson Correlation	-.415**	1.000
	Sig. (2-tailed)	.000	
	N	178	178.000

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

Table 7: Correlation between Service Quality Score and Attitudinal Loyalty

		SQS	PTS
SQS	Pearson Correlation	1.000	.735**
	Sig. (2-tailed)		.000
	N	178.000	178
AL	Pearson Correlation	.735**	1.000
	Sig. (2-tailed)	.000	
	N	178	178.000

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

and attitudinal loyalty as dependent variables to assess the strength of association between the dependent and independent variables and the predictability capacity of the independent variable to predict dependent variables with determination of marginal impact of a one percent change in independent variables on dependent variable (Chakravarty, Feinberg and Rhee, 2003). The first model summary (Table-8) showed R value as .415 which showed the existence of 41.5 percent relationship between service quality and propensity to switch, which is adequate. The second model summary (Table-11) showed R value as .735 which showed the existence of 73.5 percent relationship between service quality and attitudinal loyalty. Adjusted R square (R^2) (.171) showed that service quality explained 17.1 percent variation

Table 8: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.415[a]	.172	.171	.56708

a. Predictors: (Constant), SQS

b. Dependent variable: P

Table 9: ANOVA[b]

Model	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	34.447	1	34.447	107.117	.000[a]
	Residual	165.293	514	.322		
	Total	199.739	515			

a. Predictors: (Constant), SQS

b. Dependent variable: PTS

Table 10: Regression Coefficients

		Unstandardized Coefficients		Standardized Coefficients		
	Model	B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.928	.264		7.315	.000
	SQS	-.539	.052	-.415	-10.350	.000

a. Dependent variable: PTS

Table 11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.735[a]	.541	.540	.26991

a. Predictors: (Constant), SQS

b. Dependent variable: AL

Table 12: ANOVA

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.110	1	44.110	605.503	.000[a]
	Residual	37.444	514	.073		
	Total	81.554	515			

a. Predictors: (Constant), SQS

b. Dependent variable: AL

in switching propensity, while adjusted R square value (.540) (Table-11) explained 54.0 percent variation in attitudinal loyalty. The results of ANOVA (Table-9 and Table-12) established that the variation showed by the service quality was significant at one percent level (f=107.117, p<.001) and (f=605.503, p<.001). The standardised regression coefficient results (Table-10) showed that the service quality score (β=-.415, t=-10.350, p<.001), have statistical significance and is negatively correlated to propensity to switch (PTS). Table-13 revealed that the service quality is positively correlated to attitudinal loyalty (β=.735, t=24.607, p<.001). The regression equations for predictability assuming service quality as independent and propensity to switch and attitudinal loyalty as dependent variables can be respectively represented as:

(i) $PTS = aX_1+c$

or, $PTS = (-.539* X_1) + (-1.928)$, where X_1 represents Service quality score and c is regression constant

(ii) $AL = bY_1+k$

or, $AL = (.735* Y_1) + 2.062$

The CRM score was obtained for individual customer by taking the mean of response across the three components of CRM people, process and technology. Bivariate correlation was obtained to test the strength and nature of relationship that exist between service quality and CRM components. Table-14 displays the result of the correlation analysis which suggests a strong a positive correlation between service quality (SQS) and people (r=.507**, p<.001), service quality (SQS) and process (r=.560**, p<.001) and service quality (SQS) and technology (r=.518**, p<.001).

Table-14 exhibited that attitudinal loyalty had strong and positive correlation with the CRM components namely people (r=.178**, p<.001), process (r=.235**, p<.001) and technology (r=.525**, p<.001); whereas propensity to switch was found to be negatively correlated with process (r=-.297**, p<.001) and technology (r=-.128**, p<.001) and was not having significant relationship with people factor.

Table-15 displays the results of relationship between the CRM components and the attitudinal loyalty (AL) and propensity to switch (PTS) of the customers.

Table-13: Regression Coefficients

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.062	.125		16.439	.000
	SQS	.610	.025	.735	24.607	.000

a. Dependent variable: AL

Table-14: Correlation between Service Quality and CRM Components

		PEOPLE	PROCESS	TECHNOLOGY	SQS
PEOPLE	Pearson Correlation	1.000	.010	.061	.507**
	Sig. (2-tailed)		.785	.105	.000
	N	178.000	178	178	178
PROCESS	Pearson Correlation	.010	1.000	.248**	.560**
	Sig. (2-tailed)	.785		.000	.000
	N	178	178.000	178	178
TECHNOLOGY	Pearson Correlation	.061	.248**	1.000	.518**
	Sig. (2-tailed)	.105	.000		.000
	N	178	178	178.000	178
SQS	Pearson Correlation	.507**	.560**	.518**	1.000
	Sig. (2-tailed)	.000	.000	.000	
	N	178	178	178	178.000

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

Table 15: CRM Components and Attitudinal Loyalty (AL) and Propensity to switch (PTS)

		PEOPLE	PROCESS	TECHNOLOGY	AL	PTS
PEOPLE	Pearson Correlation	1.000	-.010	-.061	.178**	.073
	Sig. (2-tailed)		.785	.105	.000	.053
	N	178.000	178	178	178	178
PROCESS	Pearson Correlation	-.010	1.000	.248**	.253**	-.297**
	Sig. (2-tailed)	.785		.000	.000	.000
	N	178	178.000	178	178	178
TECHNOLOGY	Pearson Correlation	-.061	.248**	1.000	.525**	-.128**
	Sig. (2-tailed)	.105	.000		.001	.001
	N	178	178	178.000	178	178
AL	Pearson Correlation	.178**	.253**	.525**	1.000	.193**
	Sig. (2-tailed)	.000	.000	.001		.000
	N	178	178	178	178.000	178
PTS	Pearson Correlation	.073	-.297**	-.128**	.193**	1.000
	Sig. (2-tailed)	.053	.000	.001	.000	
	N	178	178	178	178	178.000

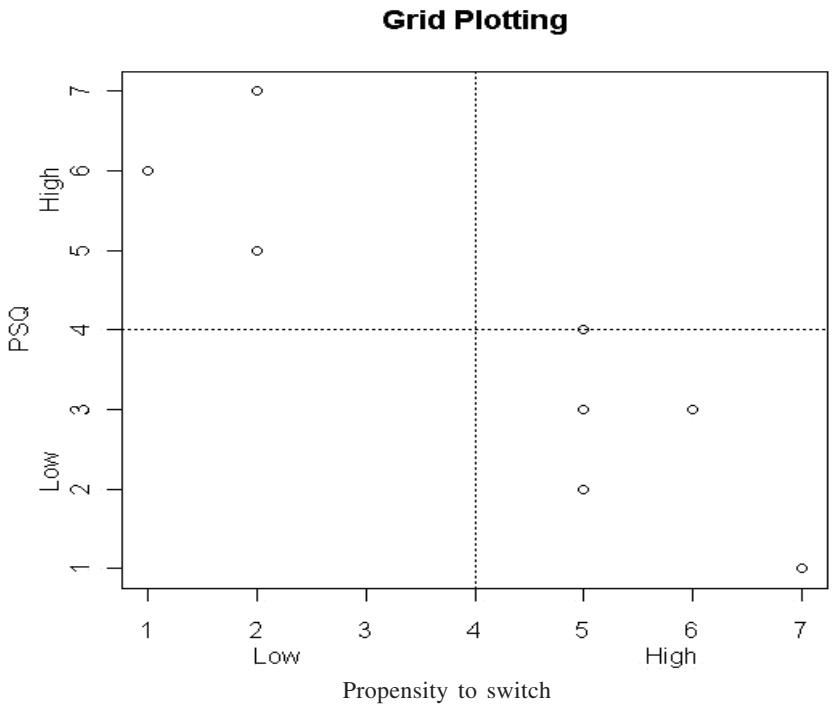
**Correlation significant at 0.01 level (2-tailed)

Table 16: Goodness-of-fit Statistics

Indices	Values
Degrees of Freedom	156
Minimum fit function Chi-Square	1432.187 (P=0.00200)
Goodness of Fit Index (GFI)	0.97
Adjusted Goodness of Fit Index (AGFI)	0.91
Parsimony Goodness of Fit Index (PGFI)	0.69
Comparative Fit Index (CFI)	0.91
Incremental Fit Index (IFI)	0.89
Relative Fit Index (RFI)	0.72
Normed Fit Index (NFI)	0.61
Non-Normed Fit Index (NNFI)	0.57
Standardized RMR	0.21
Root Mean Square Error of Approximation (RMSEA)	0.035
Expected Cross-Validation Index (ECVI)	0.37

Perceptual mapping concept was used by grid-plotting technique to observe the clustering of variables. It was clearly found that with the decrease in perceived service quality about their bank (SBI), propensity to switch to other similar service providers increases and vice-versa (Grid-plot-1) while on the other hand it was found that with increase in perceived service quality there was an elevated level of attitudinal loyalty and vice-versa (Grid-plot-2).

Grid Plot 1: Perceived Service Quality Vs Propensity to switch



Grid Plot 2: Perceived Service Quality Vs Attitudinal Loyalty

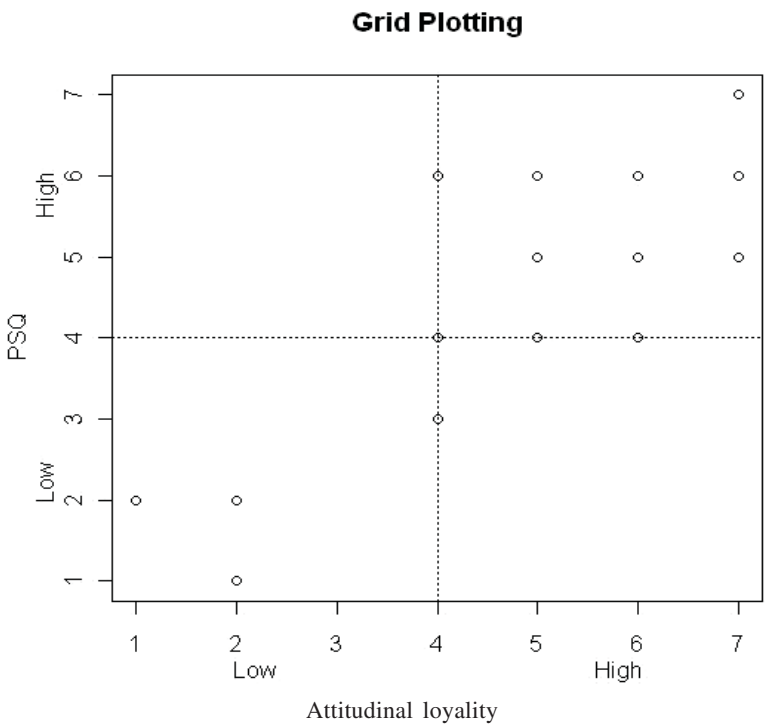
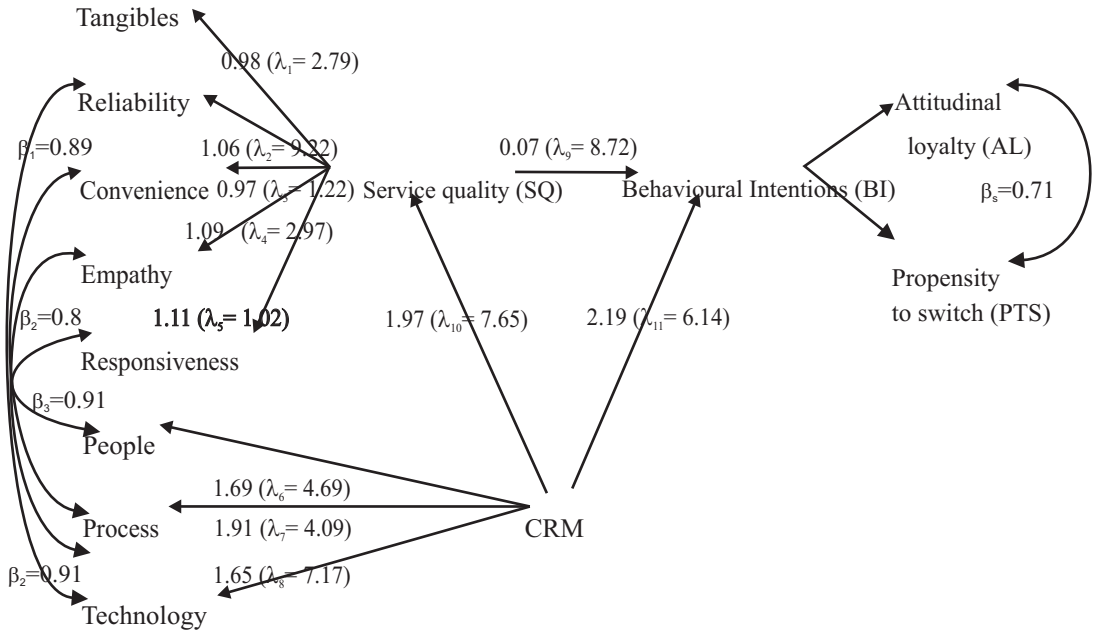


Fig. 2: Structural Equation Modeling



Development of Model

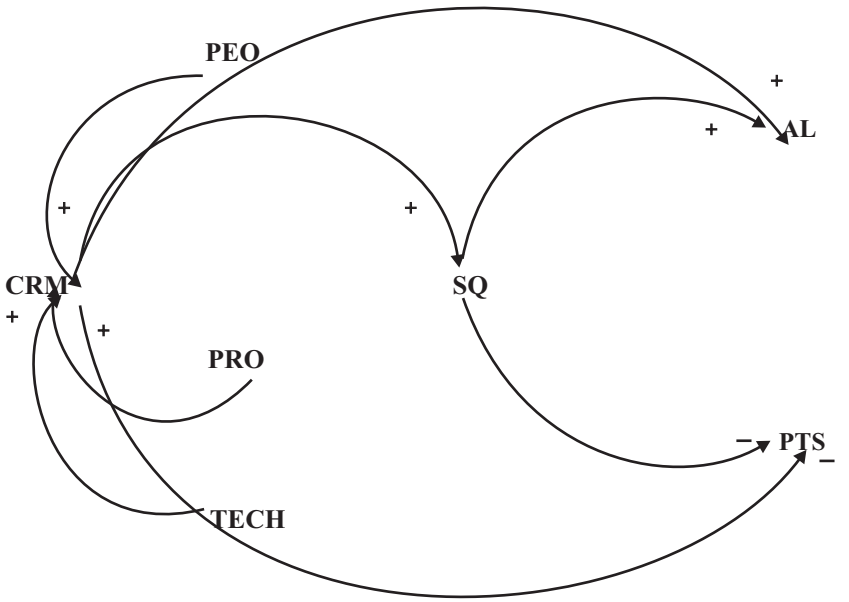
The theoretical conceptual model was tested for validity. Confirmatory factor analysis was used to understand the dimensionality, convergence and discriminant validity. LISREL software was used for further calibration and to cross-validate the convergence of the models. The results showed that the data did converge for the latent variables namely 'service quality,' 'CRM' and 'behavioural intentions' and was justified with a number of goodness-of-fit indices (Table-16).

The direct, indirect and cumulative effects of independent variables on dependant variables were identified as follows:

Independent variables	Direct effects	Indirect effects	Total effects
SQ ⟶ BI	0.97		0.97
CRM⟶SQ⟶ BI		1.91 (1.97*.97)	1.91
CRM⟶ BI	2.19		2.19
BI ⟶AL	0.89		0.89
BI ⟶PTS	0.72		0.72
SQ ⟶BI ⟶ AL		0.86(.97*.89)	0.86
SQ ⟶BI ⟶ PTS		0.70 (.97*.72)	0.70
CRM ⟶ BI⟶AL		1.95 (2.19*.89)	1.95
CRM ⟶ BI⟶PTS		1.58(2.19*.72)	1.58

Causal loop diagram helps in identifying the effects of inter-related variables on each other and exhibits certain nodal junction representing interconnection between variables. The relational flow between these variables may be represented with arrow-heads showing both positive and negative connotations. The dynamic causal loop diagramming for the current study may be represented as follows:

Fig. 3: Causal Loop Diagramming Showing Relationship between Service Quality, Customer Relationship Management and Behavioural Intentions



Conclusion

The study revealed non-existence of gap while measuring service quality on the basis of difference between perceived and expected levels of service quality of the customers of SBI at Bolpur and Santiniketan. It was established that service quality negatively correlated with customers' propensity to switch and displayed a strong and positive correlation with attitudinal loyalty of the customers. Service quality has emerged as a good predictor of customers' propensity to switch and attitudinal loyalty. The modernization and automation process undertaken by SBI witnessed the integration of CRM philosophy with its core operation by virtue of effective synchronization between people (internal and external customers), process (service design and delivery process) and technology (electronic networking, multichannel integration and usage of core banking platform) which displayed a strong and positive impact on perceived service quality of the customers. The critical success factors of CRM namely people, process and technology are also influential in determining behavioural consequences of customers. The perceptual mapping of behavioural intentions (BI) against the perceived service quality (PSQ) of the customers revealed that attitudinal is directly proportional to perceived service quality while propensity to switch is inversely proportional to the same, thereby confirming the results of bivariate correlation. The proposed model exhibited data convergence and is acceptable on the basis of a number of goodness of fit statistics.

The causal loop diagram exhibited both positive reinforcement loop (for SQ and AL, CRM and SQ, CRM and AL and P, P, T and CRM) and negative reinforcement loop (for SQ and PTS, CRM and PTS) suggesting that the customers of SBI at Bolpur and Santiniketan are satisfied with the quality aspects and, therefore, exhibited a favouarble behaviour towards their bank.

The study has managerial implication in the sense that long-term strategy can be chalked out with regard to customer retention and elevated level of customer satisfaction on the basis of results generated. The managers can also monitor the pattern of customers' behaviour on the basis of their perceived service quality and trace out signals of defection or attrition which will allow them to be proactive in formulation of retention strategies.

The study was conducted in the semi-urban setting of Bolpur and Santiniketan. Therefore, geo-demographic generalization cannot be done on the basis of this study.

In future intermediary variables namely customer satisfaction and customer retention may be included to examine their roles against the terminal variables like service quality and behavioural intentions. The study may be conducted in other geo-demographic locations to understand variability in results and its probable causes, if exhibited so.

References

Avkiran, N. K. "Developing an Instrument to measure Customer Service Quality in Branch Banking." *International Journal of Bank Marketing.* Vol-12, No.6, (1994): 10-18.

Baksi, Arup K. "Service Quality Augmentation through Relationship Marketing: Impact of Technology." *Journal of Management Science (JOMAS).* Bengal Engineering and Science University, West Bengal, India, Vol.3, 2007.

Barrington, Richard. "Hard Lessons from CRM Experience: Six Mistakes to Avoid." 2008.<www. vendorguru.com>

Bitner, M.J. "Evaluating Service Encounters: the Effects of Physical Surroundings and Employee Responses." *Journal of Marketing.* 54, (1990): 69-82.

Bitner, Mary Jo, H. Booms, Bernard and Mohr, A. Lois. "Critical Service Encounters: The Employee's Viewpoint." *Journal of Marketing.* 58, (1994): 95-106.

Boulding, William, Richard Staelin, Michael Ehret, Wesley J. Johnston. "A CRM Roadmap: What we know, potential pitfalls, and where to go." *J. Marketing.* Vol-69, No.4, (2005): 155–166.

Borden, N. H. "The Concept of the Marketing Mix." in Schwartz, G. (Ed.), *Science in Marketing*. John Wiley and Sons, New York, (1965): 386-397.

Bull, C. "Strategic Issues in Customer Relationship Management (CRM) Implementation." *Business Process Management*. Vol. 69, (2003): 592-602.

Buttle, F. "SERVQUAL: Review, Critique, Research Agenda." *European Journal of Marketing.* 30(1): (1996): 8-32.

Carman, J. M. "Consumers' Perceptions of Service Quality: An Assessment of the SERVQUAL Dimensions." *Journal of Retailing.* 66, 1, (1990): 33-55.

Chow, S. and R. Holden. "Toward an Understanding of Loyalty: The Moderating Role of Trust." *Journal of Managerial Issues. 9*(3), (1997): 275-298.

Cronin, J. and S.A. Taylor. "Measuring Service Quality: A Re-Examination and Extension." *Journal of Marketing*. 56, July, (1992): 55-67.

Crosby, L. A. and N. Stephens. "Effects of Relationship Marketing on Satisfaction, Retention, and Prices in the Life Insurance Industry." *Journal of Marketing Research*. November, Vol. 14, (1987): 404-11.

Culliton, J. W. *The Management of Marketing Costs*. Harvard University, Boston, Massachusetts, 1948.

Day, G. S. "Managing Market Relationships." *Journal of the Academy of Marketing Science*. Vol. 28, No. 1, (2000): 24-30.

Eckerson, W. and H.Watson. "Harnessing Customer Information for Strategic Advantage: Technical Challenges and Business Solutions." *Special Report*. The Data warehousing Institute, Chatsworth, CA: 2000.

Evans, J. R. and R. L. Laskin. "The Relationship Marketing Process: A Conceptualization and Application." *Industrial Marketing Management. 23*(5), (1994): 439-452.

Fjermestad, J. and N.C. Jr. Romano. "Electronic Customer Relationship Management: Revisiting the General Principles of Usability and Resistance: an Integrative Implementation Framework." *Business Process Management Journal*. Vol. 9, No. 5, (2003): 572-91.

Galbreth, J. and T. Rogers. "Customer Relationship Leadership." *TQM Magazine*. Vol. 11, No. 3, (1999): 161-71.

Gefen, D. "Customer Loyalty in E-Commerce." *Journal of the Association for Information Systems. (3)*, (2002): 27-51.

Gummesson, E. "Total Relationship Marketing: Rethinking Marketing Management from 4Ps to 30₹" *Oxford.* Butterworth Heinemann, 1999.

Grabner-Kraeuter, S.M., G. Moedritscher, M. Waiguny, and W. Mussnig. "Performance monitoring of CRM Initiatives." *IEEE Computer Society.* 40th Annual Hawaii International Conference on System Sciences, 2007.

Gray, P. and J. Byun. "Customer Relationship Management: Practical Tips for Successful Implementation." 2001.

Grönroos, C. "Strategic Management and Marketing in the Services Sector." *Marketing Science*. Cambridge, MA: 1982.

Grönroos, C. "Strategic Management and Marketing in the Service Sector." *Marketing Science Institute*. Boston, MA: 1983.

Grönroos, C. "A Service Quality Model and Its Marketing Implications." *European Journal of Marketing*. 18(4): (1984): 36-44.

Gronroos, C. "Service Management and Marketing: A Customer Relationship Marketing Approach." *Second Edition*. Chichester, UK: Wiley, 2000.

Heide, J. B. "Inter-Organizational Governance in Marketing Channels." *Journal of Marketing. 58*(1), (1994): 71-85.

Hunt, S. D. *A General Theory of Competition*. Sage Publications, Thousand Oaks, California: 2000.

Jacoby, J. and D.B. Kyner. "Brand Loyalty versus Repeat Purchase Behaviour." *Journal of Marketing Research.* 10 (1), (1973): 1-9.

Julian, C. C. and B. Ramaseshan. "The Role of Customer-Contact Personnel in the Marketing of Retail Bank's Services." *International Journal of Retail and Distribution Management.* 5: (1994): 29-34.

Jun, M. and S. Cai. "The Key Determinants of Internet Banking Service Quality: A Content Analysis." *The International Journal of Bank Marketing.* Vol. 19, No. 7, 2001.

Kearns, D. and D. Nadler. *Prophets in the Dark: How Xerox Reinvented Itself and Beat Back Japanese.* New York: Harper Collins Publishers, 1992.

Keaveney, Susan M. "Customer Switching Behavior in Service Industries: An Exploratory Study." *Journal of Marketing*. 59, (1995): 71-82.

Kotler, P. *Marketing Management: Analysis, Planning, Implementation, and Control*. 9th ed., Prentice-Hall, Upper Saddle River, New Jersey: 1997.

Lehtinen, J.R. and U. Lehtinen. "Service Quality: A Study of Quality Dimensions." *Unpublished Working Paper.* Service Management Institute, Helsinki: 1982.

Light, B. "CRM Packaged Software: A Study of Organisational Experiences." *Business Process Management Journal.* Vol. 9, No. 5, (2003): 603-16.

Llosa, S., J.L. Chandon, and C. Orsingher. "An Empirical Study of SERVQUAL's Dimensionality." *The Service Industries Journal*. 18 (2), (1998): 16-44.

Macintosh, G. and L. S. Lockshin. "Retail Relationships and Loyalty: A Multi-Level Perspective." *International Journal of Research in Marketing. 14*(5), (1997): 487-497.

Parasuraman, A., L. L. Berry, and V. A. Zeithaml. "A Conceptual Model of Service Quality and Its Implications for Future Research." *Journal of Marketing*. (pre-1986), 49, (1985): 41-50.

Parasuraman, A., V. A. Zeithaml, and L. L. Berry. "A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality." *Journal of Retailing*. 64 (Spring), (1988): 12-37.

Parasuraman, A., L. L. Berry, and V. A. Zeithaml. "Refinement and Reassessment of the SERVQUAL Scale." *Journal of Retailing*. 67(4), (1991): 420-450.

Parasuraman, A. and V. A. Zeithaml. "Understanding and Improving Service Quality: A Literature Review and Research Agenda." in B. Weitz and R. Wensley

(Ed.), *Handbook of Marketing*. London: Sage Publications, 2006.

Payne, A. "The Multi-Channel Integration Process in Customer Relationship Management." 2005.

Payne, A. and P. Frow. "Handbook of CRM: Achieving Excellence in Customer Management (1st Edn). Butterworth-Heinemann, 2006.

Payne, A. and P. Frow. "Customer Relationship Management: from Strategy to Implementation." *Journal of Marketing Management*. Vol. 22, No. 1, 2, (2005): 135.

Payne, A. and P. Frow. "A Strategic Framework of Customer Relationship Management." *Journal of Marketing*. Vol. 69, No. 3, (2005): 312.

Peck, H., A. Payne, M. Christopher, and M. Clark. *Relationship Marketing: Strategy and Implementation*. Butterworth-Heinemann, Oxford: 1999.

Peppard, J. "Customer Relationship Management (CRM) in Financial Services." *European Management Journal*. Vol.18, No.3, (2000): 312.

Plakoyiannaki, E. and N. Tzokas. "Customer Relationship Management: A Capabilities Portfolio Perspective." *Journal of Database Marketing*. (2002): 228-239.

Reinartz, W. J. and V. Kumar. "The Impact of Customer Relationship Characteristics on Profitable Lifetime Duration." *Journal of Marketing*. 67(1), (2003): 77-99.

Rowley, J. and J. Dawes. "Disloyalty: A Closer Look at Non-Loyals." *Journal of Consumer Marketing*. 17(6), (2000): 538-549.

Rust, R.T. and A.J. Zahorik. "Customer Satisfaction, Customer Retention and Market Share." *Journal of Retailing*. 69 (2), (1993): 193-215.

Sandoe, K., G. Corbitt, and R. Boykin. "Enterprise Integration." John Wiley and Sons, New York, NY: 2001.

Sheth, J. and A. Parvatiyar. "Relationships in Consumer Markets: Antecedents and Consequences." *Journal of the Academy of Marketing Science*. 23(4), (1995): 255-271.

Tamminga, P. and P. O'halloran. "Finding The Real Value in CRM: Leveraging IT Solutions through the Customer Driven Approach." *Cutter IT Journal*. Vol. 13, No. 10, (2000): 4-11.

Tax, Stephen S. and W. Brown, Stephen. "Recovering and Learning from Service Failures." *Sloan Management Review*. 40, (1998a): 75-88.

Webster, F. E. "Understanding the Relationships among Brands, Consumers and Resellers." *Journal of the Academy of Marketing Science*. Vol. 28, No. 1, (2000): 17-23.

Weinstein, Art and C. Johnson, William. "Designing and Delivering Superior Customer Value: Concepts, Cases, and Applications." Boca Raton: CRC Press LLC. (1999): 119a, 119b, 117c, 119d, 124-126e, 126f, 127g.

Woo, K. and C. T. Ennew. "Measuring Business-to-Business Professional Service Quality and Its Consequences." *Journal of Business Research*. 58: (2005): 1178–1185.

Yang, Z and Z. Fang. "Online Services Quality Dimension and Their Relationships with Satisfaction: A Content Analysis of Customer Reviews of Securities Brokerage Services." *The International Journal of Bank Marketing*. Vol. 15, (2004): No. 3.

Yavas, U., Z. Bilgin and D.J. Shemwell. "Service Quality in the Banking Sector in an Emerging Economy: A Consumer Survey." Vol. 15, No. 6, (1997): 217-223.

Zeithaml, V.A., A. Parasuraman, and A. Malhotra. "Service Quality Delivery through Web Sites: A Critical Review of Extant Knowledge." *Journal of the Academy of Marketing Science*. Vol.30, No. 4, (2000): 362-75.

Human Asset Managing and Traffic Jam Control

Samuel Iteba Onchoke and S. B. Akash

Abstract

The current article contributes literature on telecommuting from the dimension of managing human asset and curbing jam menace in the cities of emerging economies. The article theoretically defines telecommuting, its dimensions; illuminates, from the organisation point of view, factors that influence the choice to adopt or not to adopt telecommuting. Telecommuting organisational decisions have a positive implication for managing the worker retention and productivity and city traffic control as well.

Key words:

Physical Services Quality, Core Services Quality, Structural Equation Modeling, Satisfaction, Commitment.

Samuel Iteba Onchoke, Research Scholar, Dept. of P.G Studies and Research in Commerce, Kuvempu University, Jnana Sahyadri, Shankaraghatta -577451, Shimoga District, Karnataka, E-mail: sonchoke1@yahoo.com

Dr. S.B. Akash, Associate Professor, Chairman, Dept. of P.G. Studies and Research in Commerce, Kuvempu University, Jnana Sahyadri, Shankaraghatta -577451, Shimoga District, Karnataka, E-mail: akash_pgc06@rediffmail.com

As globalisation gears its high pace, business enterprises, especially multinational enterprises meet increasing competition from developed and emerging economies. In order to cope with this stiff competition businesses are bound to utilise their human asset whose talent, skills and knowledge cannot be duplicated easily by their competitors. The human asset these days can be effectively managed using information and telecommunication technology portals. The article theoretically defines telecommuting system, its observable dimensions, factors that influence telecommuting and its role in global business. The need to reduce traffic congestion during rush hours, as well as reduce vehicle miles of travel due to work-related travel (which contributes to greenhouse gas emissions from the transportation sector), has led planning organizations and regional governments to consider several demand management actions, one of them being promotion of telecommuting.

Concept of Telecommuting

Before illuminating on the concept of telecommuting it is necessary to define a telecommuter. The term "telecommuter"

can refer to anyone who works in a home or mobile office for an employer somewhere else-whether it's daily or weekly, at a few miles' distance or halfway around the world (Johnson, 1999). In other word, a telecommuter is an employee who works not in a central office but from his or her home, car, and other new work sites.

Various scholars have contributed to the concept of telecommuting as follows:

Telework means the capability of individuals to work at home and communicate with their offices by using personal computers and communications equipment and software (Shelly et al., 1998). Williams et al. (1999) opine that computers and communications tools have led to telework and telework centers, the virtual office and "hoteling," and the mobile workplace. Further, Johnson (1999) discovered that email and newsgroups are the primary form of communication. He also discovered that telecommuter needs to convince the boss that phone conferences will work just fine.

Williams et al., (1999) stated that the virtual office is an often non-permanent and mobile office runs with computer and communications technology. Knight and Westbrook (1999) supported and referred telework as to employees who work predominantly outside their home office, but are associated with a traditional office and may be used as a traditional office for some administrative support and to hold physical meeting.

Fortier (1998) in his article stated that "telework" (telework) occurs when employees carry out all, or part of, their jobs at remote locations, usually from home by computer. Robertson (1998) discovered an increase in the number of mobile teleworkers who are working anytime, anywhere using portable technology to perform their jobs from customer locations, their vehicle, or their home.

Lovelace (1995) mentions that the manager is part of the new mobile workforce: people who regularly work from locations outside the office, "telecommuting" to the office by phone, fax, and modem. Today, that person is a pioneer - part of a growing social and technical phenomenon in which information is flowing to and from workers wherever their offices might be (Lovelace, 1995).

In conclusion, telework is a situation where an employee works from any location at any time and communicates to the traditional office with the use of telecommunications portals. Telework can be considered as the alternative way of working in current competitive business environment.

Telecommuting applies telecommunication technologies to work at home or at a location close home instead of commuting to a conventional work place at conventional time (Bagley and Mokhtarian, 1997). Telecommuting is particularly suited to companies that specialize in occupations with high usage of intranet and extranet networks.

Telework, as at some other times coined- implying telecommuting, may be used as a tool to realize enhanced employee productivity, increased women and minority labour force participation, improved work force retention, as well as savings in office space and other office overheads A study by the General Services Administration (GSA, 2006) reported that the financial benefit a company accrues by allowing its employees to telecommute far outstrips the cost to the company of providing necessary telecommuting products and services. The potential benefits of telecommuting to employees include work schedule flexibility, reduced transportation costs, lower overall commuting stress levels, improved job satisfaction, and improved work-family life balance (Fonner and Roloff, 2010). Instituting telecommuting programmes enable planning organizations reduce traffic congestion/GHG emissions; provide tangible benefits to employers and employees. However, there are potential problems associated with telecommuting for both employers and employees. For employers, telecommuting may lead to a loss in employee team spirit, inability to monitor employees and their work timing patterns, tax-related implications, and data security problems. On the side of employees, the costs of telecommuting may include social isolation, career prospect worries, and a loss of a clear activity rhythm with its associated adverse mental psychological implications (Russell *et al.*, 2009). While the benefits and costs of telecommuting in terms of productivity, management, and family interaction considerations have been studied extensively in Psychology, Management, and Sociology disciplines, urban planners and transportation researchers have examined the potential impacts of telecommuting on regional land-use and travel patterns. For instance, from an urban planning perspective, a natural question that arises is whether telecommuting would lead to the urban sprawl of our societies (i.e., will people with the option to telecommute relocate to residences that

are not in close proximity to dense work locations?). Similarly, from a transportation perspective, a question that arises is how will potential residential pattern shift due to telecommuting, as well as, impact travel patterns?

Early predictions of the telecommuting effects on travel focused exclusively on the substitution effect of telecommuting (that is, the reduction of work trips). However it is clear that telecommuting will not only substitute work trips, but would also generate new trips due to travel to a satellite office, travel that was previously linked to the work commute, travel generated by increased leisure time and increased schedule flexibility, and travel performed by other household members due to the increasing availability of a vehicle. But many of these new trips are likely to be undertaken in the off-peak periods, and it is generally agreed that telecommuting should contribute to a reduction of peak period trips.

Dimensions of Telecommuting

There are two dimensions that characterize the extent to which telecommuting is adopted for by firms and their employees. The first is whether or not employers provide their employees the opportunity to telecommute, which may depend on the nature of the job, the state of the technology, and the organization structure of the enterprise. While these may be considered as supply-side issues, in the medium-to-long term, individuals themselves have the ability to prepare themselves and seek jobs that provide them the opportunity to telecommute. Besides, in some cases, individual employees may have the autonomy to decide whether to have a telecommuting arrangement or not by themselves or jointly with their employer (Tremblay, 2002). The second dimension corresponds to an employee's adoption (or choice) of telecommuting and the frequency of telecommuting, which will certainly depend on whether the employee has the option to telecommute and employee preferences for telecommuting. Dependent on the option to telecommute, the dimension may be viewed primarily as the demand-side issue (*i.e*., based on employee preferences to telecommute). On the basis of these dimensions, it can be opined that an appropriate model observed practice of telecommuting must consider both the supply side and demand side issues in a joint framework, since employers' adoption of telecommuting as perceived by the employee (the "supply" side) and employees' preference for telecommuting (the "demand" side) come together and determine employees' practice (choice and frequency) of telecommuting.

Factors Influencing Telecommuting

Firm Age

The HR literature suggests that younger organizations are more likely to adopt innovative HR practices for multiple reasons. Young organizations are exposed to the liabilities of newness, lack of financial and material resources, lower organizational legitimacy and a high level of uncertainty. Limited financial resources may hamper young firms´ ability to offer attractive remuneration packages. Lack of name recognition, lesser prestige, and not established reputation reduce their value as employers of choice makes working for a young firm a high personal risk (Brüderl and Schussler, 1990). Young firms are prompted to have alternative HR programmes that compensate for this liability without consuming cash. Telecommuting seems to help young companies deal with these constraints. It offers employees high flexibility (an important non-monetary reward) and it is relatively easy and inexpensive to implement. It is opined that young firms use broad and diverse social networks to overcome liabilities of newness, thus increasing their early performance and enhancing their probability of survival and growth.

Firm Size

Smaller firms that are less bureaucratic are more likely to pursue innovative HR practices such as telecommuting for financial, operational, and cultural reasons. Some of the contingency-based HR literature suggests that smaller companies buffer short-term economic pressures by replacing higher salaries with other incentives that promise greater potential rewards. Smaller firms may offer telecommuting as 1) A non-monetary incentive to attract and retain talent and to foster employees' intrinsic motivation by giving them greater personal responsibility and autonomy. 2) Smaller firms make it more difficult for poor performers to go undetected. 3) Small settings allow managers to give employees more autonomy (e.g., through telework) without the need to increase formal controls to prevent deviant behaviour (such as misstating number of hours worked or shirking work). The agency-based literature in economics and finance suggests that larger firm size makes it more difficult to monitor individual

behaviour. As a result of this reason, larger organizations tend to invest more in supervisory systems and implementing formal rules and regulations to ensure employee compliance with expectations. For instance, Boone, Field, Karpoff, and Raheja (2007) proposed the "scope of operations hypothesis," indicating that larger firms deploy more monitors hierarchically to supervise a wider scale of operations. This hypothesis has received empirical support at the top executive ranks from studies by Anderson, Bates, Bizjak, and Lemmon (2000), Boone et al. (2007), and Coles, Daniel, and Naveen (2007) and span-of-control studies at lower organizational levels (Gittell, 2001). Since telework involves more employee discretion and autonomy (the opposite of close supervision), it seems reasonable to expect that larger firms would de-emphasize its use and instead rely on more traditional work-in the office methods where direct observation by supervisors and accountability to superiors are more feasible on a day-to-day basis. Finally, from a cultural perspective, small companies tend to experience less organizational inertia and develop a more entrepreneurial spirit. Smaller firms tend to have a clan type culture (Ouchi, 1981) and emphasize employee involvement, with looser task and supervisory structures. They are more inclined to adopt innovative employment practices. On this back drop young organizations should have more freedom to offer telecommuting to employees who might benefit from it, not investing as much in formal control systems and worrying less about whether other employees perceive such arrangements as unfair.

Individual Demographics

Among the individual demographics, women are less likely to have the option of telecommuting, though they are more likely to choose to telecommute when they have the opportunity. Women have been identified as a "target" group for adding diversity (maintaining an equitable representation) in the workforce. Thus, employers may consider providing the tele-working option to women as a human resource strategy to increase the pool of women in the work force. This is particularly so especially research studies that have suggested that telecommuting is adopted, in part, to maintain a better work-family life balance; and also that women bear a disproportionate share of family-oriented responsibilities as well as place a higher premium on work-life balance (Thompson and Aspinwall, 2009). However, there are other opposing forces at work. For instance, Safirova and Walls (2004) and McCrate (2005) opine that women, in general, have less access to work flexibility of any kind because of the lower autonomy and bargaining power they may wield in the market place (even after controlling for job characteristics). Interestingly, though, the positive effect of the "married female" variable reveals that the negative likelihood of women having the option to telecommute becomes less pronounced for married women, to the point that there is no statistically significant difference between a married woman and a man in how likely they are to have the option to telecommute. This is consistent with the notion that married women more aggressively seek (and are provided) the option to telecommute (relative to unmarried women). On this backdrop women have more opportunity to telecommute than men.

The age-related effects have an impact on both the option and frequency dimensions. Middle-aged individuals (36-50 years of age) are most likely to have the option to telecommute, but are less likely to do so frequently relative to individuals of other age groups who also have the option to telecommute. This reflects the "power" position of middle-aged individuals with more "perks" associated with their jobs, but they may also hold senior management positions that require going in to work frequently. Individuals with higher education levels have more leverage and bargaining ability with their employers, thus having the ability to maintain the option to telecommute and adopt telecommuting.

Workers who use internet frequently are more likely to have the option to telecommute, a result that is reasonably given that strong internet skills lead to targeting jobs that provide the telecommuting option. According to Thompson and Aspinwall (2009) individuals with strong internet self-efficacy are attracted to jobs with the telecommuting option. Ignoring the option dimension would suggest that employers can expect highly educated and internet-savvy individuals to start telecommuting more because of a company-wide policy to promote telecommuting, Individuals who use the walk or bicycling modes have a higher probability of having the telecommuting option. People who prefer walking/biking are perhaps more health conscious and environment friendly, and thus look for jobs that provide them the option to telecommute.

Nature of Employees

Part-time employed individuals are less likely to have the telecommuting option compared to those working full-time, a

reflection of the fact that part-time employees already work for limited hours and employers are less willing to allow flexibility within the reduced hours of work. However, given the option to telecommute, part-time employees, work more frequently from home relative full-time employees. This is intuitive because part-time employees may have targeted the limited work duration arrangement because of work/family balance considerations and, so, when having the telecommuting option, they will go for it and telecommute frequently. As opined by Sener and Bhat (2010), individuals who value work flexibility will look for jobs that can provide them both temporal (work timing) and spatial (work location) flexibility.

Individuals in sales/service, clerical/administrative support, and the MCMF occupation categories are less likely to have the option to telecommute compared to workers in professional, managerial or technical (PMF) jobs. Non-PMF jobs either require face-to-face interactions with workers/ clients on a regular basis or involve physical work of some sort.

Household Demographics

Newly born babies aged 0-5years in the household positively influence the option and choice dimensions of telecommuting. This is to be expected since either employer provides more flexibility to employees with young children at home as a family-friendly policy, or individuals with children consider only those jobs that provide them the option to work at home. Given the option, workers with children also choose to telecommute to take care of children and their travel/activity needs (Golden, 2008).

Individuals belonging to households with high income are more likely to have the option to telecommute, presumably because they are "high up the ladder" and have autonomy in determining their work arrangement. Finally, within the category of house hold demographics, individuals in households with a higher number of vehicles are more likely to choose to telecommute, possibly because there is less disruption in carpooling or dropping off / picking up responsibilities during commute when there are more vehicles.

Employees in Urban and Suburban Areas

Individuals living in urban and suburban areas are more likely to have the option of telecommuting than those living in rural areas and second cities, because of higher accessibility to telecommunication, wireless, and internet resources in urban and suburban areas. However, given the option to telecommute, individuals in rural areas are more likely to choose to telecommute, though they telecommute less frequently.

Employees residing in neighbourhoods with high household density are less likely to have the option to telecommute; while individuals in neighbourhoods with a large population are less inclined to telecommute. Workers living in areas with high employee density are more likely to have the option of telecommuting. This is as a result of opportunities available during break time to be able to visit retail areas, which is likely to increase the appeal for telecommuting.

Accessibility Measures

Several accessibility measures impact the choice to telecommute. Specifically, high accessibility to recreational, eat-out, religious, auto-repair centres, personal business, and medical centres implies a higher likelihood to telecommute, though there is no impact on the option to telecommute. Those who live closer to non-work and leisure activity opportunities attach more value to telecommuting, and so are more likely adopters.

Internationalization and the Adoption of Telecommuting

Contingency theorists have argued that the way employees conduct their work influence the adoption of innovative HR practices. Telecommuting can help overcome the geographical constraints of an international workforce by coordinating their activities through the portals of information technology. Globalization has brought firms the opportunity to operate beyond their national borders. As the world becomes a global village, internationalization increases geographical dispersion among employees and thus encourages using virtual assignees who work anywhere, anytime, using communication technologies. Telecommuting fits this context, since it allows an organization to overcome distance and bypass national borders and thus allow flexibility and cost savings in its work flows (Potter, 2003). As the firm depends more on international employees, telecommuting can help the workforce improve their human capital by having ready access to valuable knowledge and skills without the limitation of national borders. Absence of telework would make it more difficult to attract and retain talented international assignees

who are embedded in their communities and who may prefer to work from their home base. Telecommuting reduces the need to invest in employee transfers, comply with the immigration process (which may be expensive and lengthy), and open expensive facilities overseas (which often carries economic and political risks). When employees are spread out across countries, telework gives the organization much greater access to dispersed intellectual capital (Daniels, Lamond, and Standen, 2001), with the distinct advantage of coordinating the activities of highly skilled workers from a distance and forming and disbanding international teams as needed (Sparrow and Daniels, 1999).

Conclusion

With the increase in competition, doing business becomes complex. This requires management of organizations to become creative and innovative in order to survive. The management can do this through effective utilization of the human asset. One way of utilizing the human asset is through telecommuting especially for young growing firms in emerging economies that long to do their business beyond their boundaries. Through intranet and extranets the enterprises are able to perform their work not only at the offices established in urban areas but also away from urban places (remote places where there prevails information and telecommunication facilities). Employees perform their work while they are at home or get to nearby centres which are near their residential areas.

Less man-hours are lost as a result of traffic jam. Traffic jam will be minimized during rush hours and so there will be less green house gas emissions (GHGE) on our congested roads.

Telecommuting offers much greater employee autonomy than other types of family-friendly plans such as flexible work hours, parental leave, and on-site child care facilities. However, allowing employees to work at home may require strong organizational adaptations than other types of family-friendly policies such as flexible schedules.

Large international workforce, constrained by geographical distance, would facilitate firms' adoption through telecommuting.

References

Anderson, R., T. Bates, J. Bizjak, and M. L. Lemmon, "Corporate Governance and Firm Diversification." *Financial Management*. 29 (1), (2000): 5–22.

Bagley, M.N. and P.L. Mokhtarian. "Analysing the Preference for Non-Exclusive Forms of Telecommuting: Modelling and Policy Implications. *Transportation*. 24 (3), (1997): 203-226.

Boone, A. L., L. Field, J. Karpoff, and C. Raheja. The Determinants of Board Size and Composition: an Empirical Analysis. *Journal of Financial Economics.* 85 (1), (2007): 65–101.

Brüderl, J. and R. Schussler. "Organizational Mortality: The Liability of Newness and Adolescence." *Administrative Science Quarterly*. 35 (4), (1990): 530–547.

Coles, J. L., N. D. Daniel, and L. Naveen. "Boards: Does one size fit all?" *Journal of Financial Economics*. 87 (2), (2008): 329–356.

Fonner, K.L. and M.E. Roloff. "Why Teleworkers are more satisfied with their Jobs than are Office-Based Workers: When Less Contact is Beneficial." *Journal of Applied Communication Research*. 38 (4), (2010): 336-361.

Gittell, J. H. "Supervisory Span, Relational Coordination and Flight Departure Performance: A Reassessment of Post Bureaucracy Theory." *Organization Science*. 12, (2001): 468–483.

Golden, L. Limited access: "Disparities in Flexible Work Schedules and Work-at-Home." *Journal of Family and Economic Issues*. 29(1), (2008): 86-109.

Golden, L. "Limited Access: Disparities in Flexible Work Schedules and Work-At-Home." *Journal of Family and Economic Issues*. 29 (1), (2008): 86-109.

McCrate, E. "Flexible Hours, Workplace Authority, and Compensating Wage Differentials in the U.S." *Feminist Economics*. 11 (1), (2005): 11-39.

Ouchi, W.G. "Theory Z: How American Business can meet the Japanese Challenge." *Reading.* MA: Addison-Wesley, 1981.

Potter, E.F. "Telecommuting: The Future of Work, Corporate Culture, and American Society. *Journal of Labour Research*. 24 (1), (2003): 73-84.

Russell, H., P.J. O'Connell, and F. McGinnity. "The Impact of Flexible Working Arrangements on Work-Life Conflict and Work Pressure in Ireland." *Gender, Work and Organization*. 16 (1), (2009): 73-97.

Safirova, E. and M. Walls. "What have we learned from a recent survey of teleworkers?" Evaluating the 2002 SCAG Survey. *Resources for the Future*. Discussion Paper, Washington D.C. (2004): 0443.

Sener, I.and C.R. Bhat. "A Copula Based Sample Selection Model of Telecommuting Choice and Frequency." *Environment and Planning A*. 43 (1), (2010): 126-145.

Thompson, L.F. and K.R. Aspinwall. "The Recruitment Value of Work / Life Benefits." *Personnel Review*. 38, (2009): 195-210.

Tremblay, D.G. "Balancing Work and Family with Telework? Organizational Issues and Challenge." *Women in Management Review*. 17, (2002): 157-70.

<www.gsa.gov/teleworklibrary>

Skimming & Scanning

Reviewed by S. Stella Mary, Assistant Professor, SCMS School of Technology and Management, Muttom, Aluva - 683106, Ernakulam Dt., Kerala, Email: stella mary@scmsgroup.org

Book Title : ***Security Analysis and Portfolio Management***

Authors : **K. Sasidharan and Alex K. Mathews**

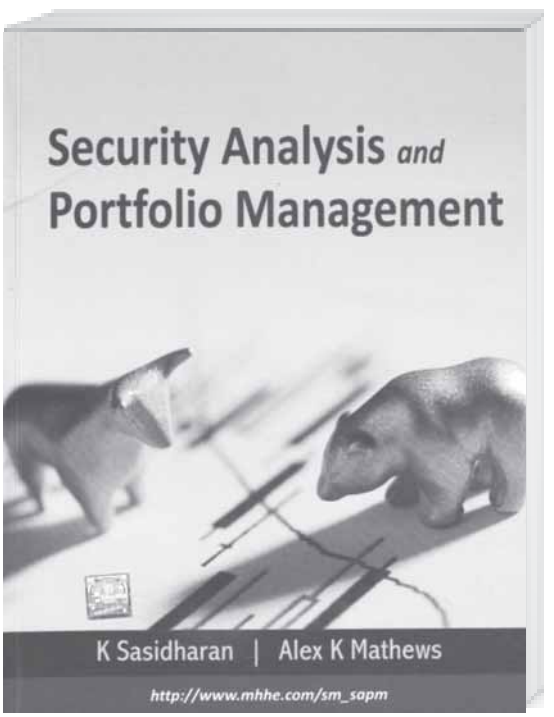
Edition : **First 2011**

ISBN 13 : **978-0-07-107801-6**

Pages : **680**

Publisher : **Tata McGraw-Hills Education Private Ltd., New Delhi.**

Analysing the security market and managing the portfolio is a complex and complicated task for the amateur or average investor. The students of finance stream, who often take up this task in corporate entities, should learn this specialised area of finance from their class room itself. In this context K. Sasidharan, a banker with long years of experience in academics and Alex K. Mathews an experienced professional in the financial market segment, has been successful in bringing out a book titled, " Security Analysis and Portfolio Management," analysing both the conceptual as well as the practical aspects of share trading and incorporating ethical and operational considerations which would help develop a better understanding of the concept and practices of the share market as relevant to economic development in India.



The book running into 680 pages concentrating on Twenty Two chapters on vital topics will find its best place in the market. The cleverness of the authors are displayed by their clarity what is normally regarded as high-flown financial and commercial jargon in simple language, which is easy to comprehend even by the non-professional potential reader.

Chapters one to six discusses in detail, 'Investments, Concepts and Avenues, Indian Capital Market, Stock Exchanges in India, Stock Market Indices and listing of securities. The authors' stresses on the fact that the introductory chapters form the foundation of any book, is very much applicable in this context. There are various real time examples given with adequate focus on theory clubbed with a clear explanation of the concepts.

Discussing the "Futures and Options" in the Seventh chapter the author points out how to play safe in the derivatives market. He goes to explain the advantages of this market. The benefits of the index futures have been

clearly specified and the examples quoted are current. The book also throws light on the real estate market in the 8th chapter, which is a value addition. This clearly shows that the focus of the author imbibes on every aspect of investment.

The author devotes a full chapter in discussing risk and return, and explains clearly the different strategies followed by investors in measuring risk. The author goes further into the areas of Investment Analysis, Company Analysis, Technical analysis, Equity Valuation and Bond Valuation, Fundamental Analysis, the modules give a very detailed description of the analysis and also explains each of them with current examples.

This book provides a comprehensive coverage on security analysis as well as portfolio management with a student-friendly approach. With discussion on latest topics, numerous examples, rich pedagogy, as well as exercises, it will adequately meet the requirements of business management students.

Skimming & Scanning

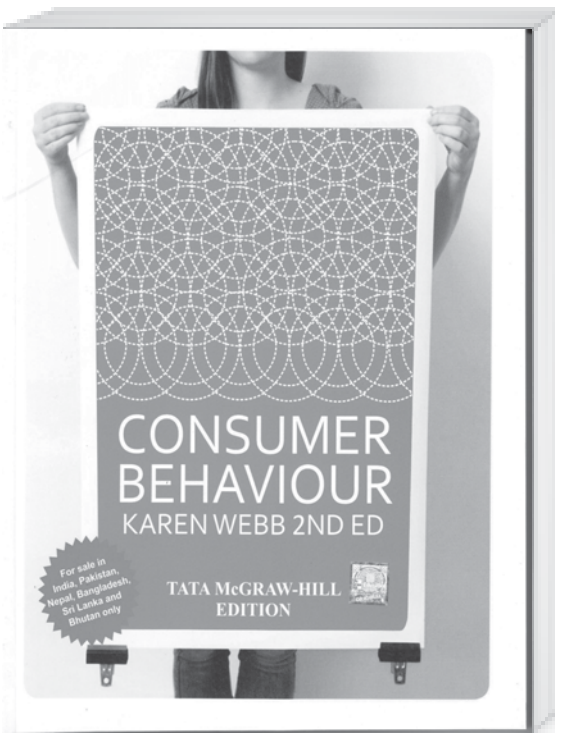
Reviewed by Sudheer Sudhakaran, Associate Professor in Marketing Department, SCMS-COCHIN, Prathap Nagar, Muttom, Aluva - 683106, Ernakulam Dt., Kerala, Email: sudheer@ scmsgroup.org

Book Title : ***Consumer Behaviour***
Authors : **Karen Webb**
Edition : **Second**
ISBN 13 : **978-0-07-133365-8**
Pages : **241**
Publisher : **Tata McGraw-Hills Education Private Ltd., New Delhi.**

The warp and the woof of the author's web are carefully designed for an Australian audience.

Ms. Karen has covered all the constructs that are required for management students learning consumer behaviour. This book is essential reading for all those management students aspiring to go to Australia for higher learning.

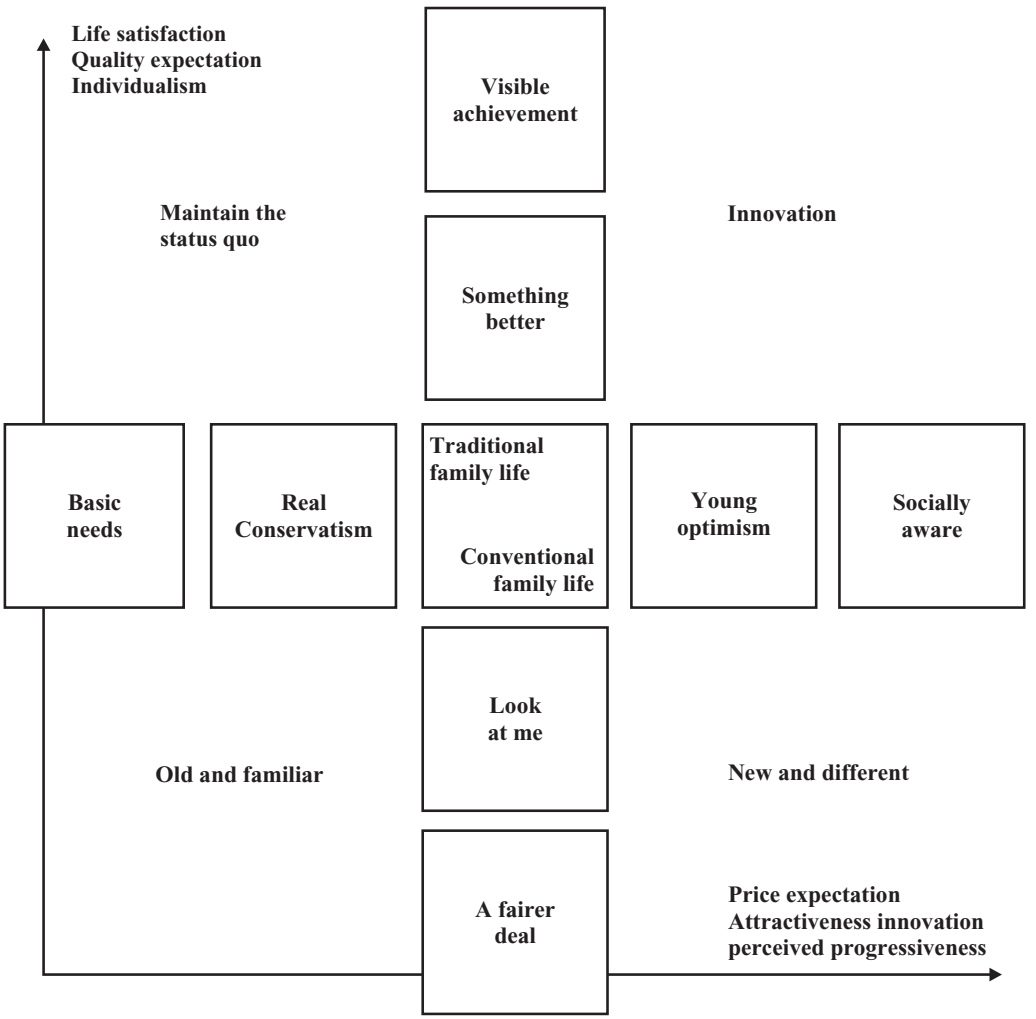
Her book is replete with Australian advertisements illustrating the salience of concepts used and examples used range from air conditioners to hair conditioners! The topic on culture covers the common aversion to eating kangaroo meat. In keeping with the customization of the book for all Australia minded readers she introduces us to Generation W - those Australians born between 1980 and 2000 and who are characterized as products of an online world and who leverage technology to improve both their lives and their lifestyles. Technology is not a luxury but a need.



The Roy Morgan VALS model discussed in her book sums up the Australian lifestyle and is reproduced.

The consumer is a problem solver seeking problem solving benefits from a product and not features. For example, the reader is introduced to the Tontine Mars & Venus Doona - quilts designed for a couple's need keeping in mind that men generally prefer less thermal insulation and so half of the quilt is kept light while the second half of the quilt is kept heavier for higher thermal insulation for women. The result is a peaceful night's sleep for both partners as opposed to the conventional fight over keeping or tossing the quilt and the concomitant loss of sleep for

FIGURE 10.1 The Roy Morgon 'VALS' Model



Source : Based on Roy Morgon Research and Horizons. The Relationships Australians Have with the Media, Sydney, 1997.

Young Optimism (7%) This group comprises students and young professional who are career oriented – they are ambitious. Are progressive thinkers, and tend to be active people who participate in sport, travel, music and socializing activities.

Socially Aware (11%) Australians in this top socio-economic group are both early adopters and influencers who are socially active, community minded and progressive. They need a lot of information before making a purchase decision.

Something Better (9%) Competitive and ambitious, they seek the better things in life, often extending their budget by using credit to display images of their success. They seek more power, improved status and security.

Visible Achievement (15%) Career-and success – motivated people who work for stimulation and financial reward. Family focused, this value segment seeks quality and value for money.

Look at me (14%) Younger, unsophisticated and active people, who are highly conscious of image and fashion. Self-centred and peer-driven, they spend 100 percent of what they earn.

Conventional Family Life (10%) Younger families whose lives centre around marriage and raising a family. They strive to build homes and to improve their family's standard of living. They enjoy spending time with friends and family.

Traditional Family Life (18%) Australia's largest group aged 50 plus, with grown-up families and contented home lives. They enjoy spending time with grandchildren, are financially secure and want community respect.

Real Conservatism (5%) Mature people who hold conservative social, moral and ethical values and like a safe, ordered and predictable society. They are asset rich, income poor.

A Fairer Deal (7%) This group contains unskilled and semi-skilled workers aged less than 35 years. They tend to be blue-collar people with financial insecurity, which creates a pessimistic view of life.

Basic Needs (4%) Older, mainly retired people, who hold conservative moral, social and religious values and look for security and control of their lives. Their reduced expectations of life are in line with their reduced income.

both partners! This quilt is definitely designed to keep both partners down under (pun intended).

This book is modular in structure with eleven chapters written concisely - each chapter begins with learning outcomes, a contextual introduction, and a market focused topical case vignette that is new to this second edition of the book along with table and advertisements to support concepts. Every chapter concludes with a summary, key terms, review questions and topics for further discussion. The book is definitely recommended reading for its ease of reading and freshness of style.

Skimming & Scanning

Reviewed by Thapasya Vijayan, Assistant Professor, SCMS-COCHIN, Prathap Nagar, Muttom, Aluva - 683106, Kerala, Email: thapasya@ scmsgroup.org

Book Title : *Organisational Behaviour*

Emerging Knowledge and Practice for the Real World

Authors : Steven L McShane, Mary Ann Von Glinow, and Radha R Sharma

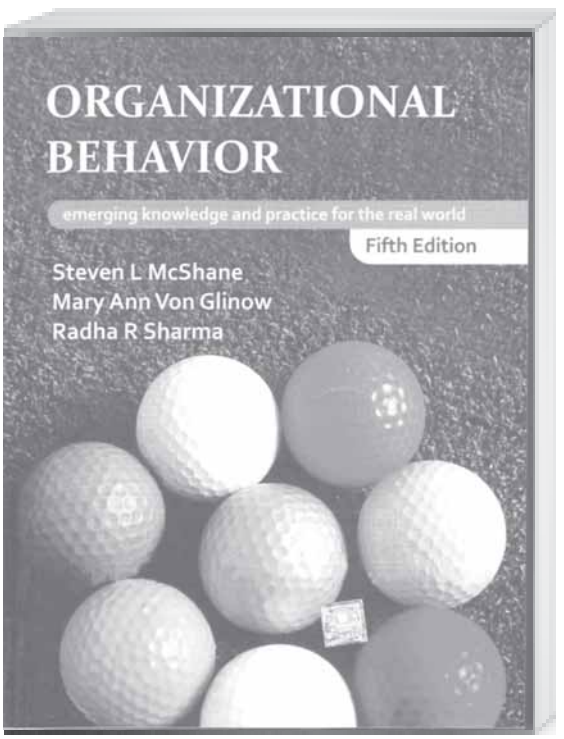
Edition : Fifth

ISBN 13 : 978-0-07-107798-9

Pages : 793

Publisher : Tata McGraw-Hills Education Private Ltd., New Delhi.

Organisational behaviour is a broad area of management that studies how people act in organisations. Managers can use theories and knowledge of organisational behaviour to improve management practices for effectively working in organisations.



As scholars, commentators, and government officials continue to struggle to understand the causes of the current economic crisis, the question of what role organizational dynamics played in the actions that led to company failures, is central to the debate. Insight into the psychology and sociology of the sometimes dysfunctional ways that people act in groups may go a long way toward answering these questions and helping to avoid similar problems in the future. The current crisis underscores the value of Organizational Behaviour as a discipline, and its core curriculum, Organizational Behaviour gives students a tool kit of knowledge that is relevant across an array of sectors, and insights that can help them to improve their performance in all roles within a company and to rethink company design for better functioning. Companies are looking for employees with emotional intelligence and team competencies, not just technical smarts.

This is an easy to read book introductory for Organizational Behaviour students which is written in the context of these emerging workplace realities. It is the fifth edition published in 2011 that is presently under review. The book clearly outlines objectives for each chapter and has key terms bolded, written in italics and defined in the margins. At the end of every chapter there are Critical Thinking Questions to help students take away the necessary information and focus on what is most important.

There are also chapter summaries, case studies and key terms given at the end of a chapter which would give the learners a complete idea about the importance of the chapter and its practical application in the industry. It also helps the students to diagnose the issues and apply ideas from that chapter. More than a dozen additional cases appear at the end of the book. Several cases are new to this book and are written by instructors from different countries. This book touches on an array of topics, including leadership, cultural diversity, power and influence, team process and interactions, organizational design, organisational effectiveness, organisational processes and many more. This book is also a rich resource for in-class activities, some of which are not available in other OB textbooks, such as "Test Your Knowledge of personality," "Where in the World are we?"and "Cross-Cultural Communication Game." This book has a strong global orientation which goes beyond the traditional practice of describing how U.S. companies operate in other parts of the world. The book is obviously targeted at the Academia, and does adequate justice to that objective. This book really contributes to the emerging knowledge and practice for the real world and helps everyone to make sense of organisational behaviour and provides conceptual tools needed to work more effectively in the workplace. A "must read" for those involved in B-School teaching and learning. It's also beneficial as a guide for practising managers in the field. If you're on the fence about buying it for your class or not, I recommend buying it because it's got some great info in there that you may find useful beyond the classroom.

Skimming & Scanning

Reviewed by Sreekanth S.V., Assistant Professor, SCMS-COCHIN, Prathap Nagar, Muttom, Aluva - 683106, Ernakulam Dt., Kerala, Email: sree kanth@ scmsgroup.org

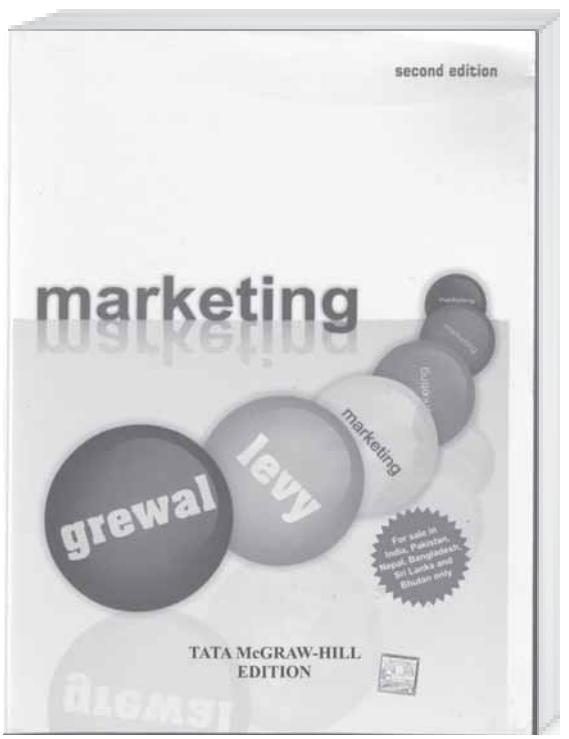
Book Title	**:**	***Marketing***
Authors	**:**	**Dhruv Grewal and Michael Levy**
Edition	**:**	**Second**
ISBN 13	**:**	**978-0-07-338095-7**
Pages	**:**	**683**
Publisher	**:**	**Tata McGraw-Hills Education Private Ltd., New Delhi.**

Marketing has emerged as an academic subject not merely from the earlier economic theories but predominantly based on the practices followed by organizations within and across countries.

If it took decades to record noticeable changes in marketing practices in earlier days, in 19th and 20th centuries, it is taking just years or even months alone to bring in changes in the ways in which companies adopt tools and adapt to situations. Yes, marketing is changing constantly.

The book *Marketing* by Dhruv Grewal and Michael Levy is the second edition which is printed by Tata McGraw Hill. The copy under mention is meant for sale in a few Asian countries only.

The authors have attempted to take in concerted effort in forming the contents and structuring this text. The book is organized into seven sections which are further sub-divided into 19 chapters. The chapters are systematically sequenced from the fundamental concepts of marketing through marketing environment, behavioural concepts, strategic areas, global concepts, to personal selling and sales management. Major points of emphasis throughout the text book are related to Corporate Social Responsibility, Concept of Value and Internet Enabled Marketing. Services Marketing secures a very fine place in the content.



The Presentation

The major point to be noticed about the text book is its style of presentation. It comes with clearly an unorthodox style of content organization. The table of contents runs through 19 odd pages which exhibit the key areas of the chapters more evident. Each chapter starts with a narration of major learning objectives, and

concludes with a summary note, key terms, practical hints, multiple choice questions (a few) internet based exercises with 'tool kits' which are exercises to be practised by the learners.

Few chapters are appended with detailed illustrations on marketing situations and strategies. Each chapter is highly illustrative and contains several self checking points / tools after major areas of discussion which will help the readers cross check their learning outcome. Interestingly most of the chapters begin with a print ad page that exhibits certain brands and products (few are not evidential) which enhances the narratives in the chapter introduction.

The book ends with glossary, answer keys and indices. End notes are provided to detail the source of data and references, credits are given to the various sources of illustrations and photos.

The major limitations, to mention, are: black and white print unlike the modern subject text books and the photos and illustrations could have been more effective if provided in colour scheme. As mentioned earlier, certain pictures, used in the beginning of the chapters are either not clear or not evidential on brand name, at the immediate glance.

Section one is organized in four chapters which deal with the basic concepts of marketing, marketing strategies, ethical issues and marketing environment. The objective of this section is to lay a foundation on the marketing principles in the mind of the readers.

Section 2 contains three chapters focusing on consumer behaviour, B2B marketing and Global Marketing perspectives. This section gives both conceptual and practical knowledge to the readers.

The two chapters included in Section 3 detail the STP marketing strategies and marketing research. This section is rich with more practical concepts.

Section 4 is dedicated to emphasize the "value creation" aspect in marketing. There are three chapters in this section which deal with product, branding, packaging decisions and the challenges to be met in the marketing of services.

Section 5 is exclusively dedicated to describe the aspects of pricing, the key mechanism to drive - in revenue to the firm. There are two chapters in this section.

The “Place” concept presently called as “Value delivery System” is depicted in Section 6 through two chapters. The major focus areas are supply chain management and retailing.

Section 7 deals with the "Communication of Marketing Efforts." The "Promotion" which is the 4th P according to McCarthy is detailed in three chapters. The chapters contain the concepts of IMC, Advertising and Personal Selling. Chapter 18 is specifically dedicated for Advertising and the closing chapter 19 covers personal selling.

As mentioned earlier, the concepts of ethics, value creation, internet based tools and global marketing are given emphasis in several areas of the text book. The exhibits, tables, pictures and narratives help in creating interest among readers. The book is written in simple language and in many a place narratives are used appropriately.

It is to be noted that no structural changes are effected from the first edition. Number of illustrations has been increased and the print quality has been enhanced in this later edition.

The book will be a good "knowledge offer" for the students, faculty members and practising managers.

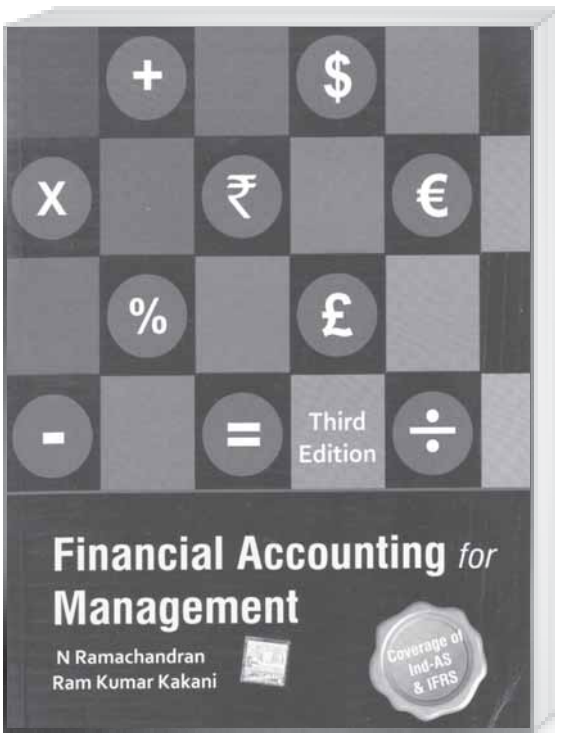
Skimming & Scanning

Reviewed by Dennis Thomas, Assistant Professor, SCMS-COCHIN, Prathap Nagar, Muttom, Aluva - 683106, Ernakulam Dt., Kerala, Email: dennis thomas@ scmsgroup.org

Book Title : ***Financial Accounting for Management***
Authors : **N. Ramachandran and Ram Kumar Kakani**
Edition : **Third**
ISBN 13 : **978-0-070133341-2**
Pages : **753**
Publisher : **Tata McGraw-Hills Education Private Ltd., New Delhi.**

Accounting is termed as the language of Business. For time immemorial book keepers have been innovating accounting to make it adhere to the changes in complex business environment that we live in. The last 50 years have seen a dramatic change in the way accounting was perceived. As business started exporting and importing and with the coming up of different trade agreements across the world, it has become important that the accounting language is same for one and all. Be it the automobile giants in Germany selling their cars in India or Indian Software companies servicing their clients in USA, accounting has to be made understandable to one and all.

With the invention of newer technologies and the developments of new markets there has been a change in how accounting is taught today in B schools. Students want up to date information about the changes happening in the field and also want to know how teachings in the books can help them face the real world out there where only the fittest will survive.



There have been many books which give information or rather knowledge about accounting but it is very important that it should be linked with examples and illustrations. It is very rare for Indian author/authors to assimilate all in a package and deliver with the right quality to the learners. The book *Financial Accounting for Management* by Prof. Neelakantan Ramachandran and Assoc. Prof. Ram Kumar Kanani is one of the books in accounting which is able to give the same.

Prof. Ramachandran is currently the Principal Consultant with Management Advisory Services and has devoted 40 years of his life as an academician. After his doctorate he joined IIM Calcutta and following

that joined Asian Institute of Technology (AIT) Bangkok. He had risen to the rank of its Chief Internal Auditor. He has been a consultant with government and government agencies for different Asian Countries.

Assoc. Prof Kakani is currently with XLRI Jamshedpur. He has experience in both industry and academia. Prior, he had also served as a Residential Academic in many international locations. He has been ranked by Social Science Research Network as the top author in this profession for the year 2007 and has been conferred the best teacher award of 2005 by the Association of Indian Management School.

The book Financial Accounting for Management is published by Tata McGraw Hill Education Private Limited. This is the third edition released in 2011.

The authors have conveyed that the objective of the book was to address the users with accounting information and is targeted towards graduate students of management as well as anyone dealing with management and investments. This book is also for laymen who do not have any prior formal training in accounting. The other purpose of the book is to prepare managers with the ability to understand and evaluate accounting reports.

With the objectives clear, the authors have delivered a volume which is useful for users of all types. They have also devoted two pages to give acknowledgements to all the contributors who have helped them in setting up this book. Though acknowledgements are given in books but to provide an exhaustive list giving thanks to each and everyone involved shows how much the authors have appreciated associates and shown their gratitude.

The book consists of nine chapters which details the contents in sub sections. They are:

1) Conceptual basis of Accounting: Introduction to the area of Accounting and making understand the basis of the existing accounting concepts, postulates, principles and standards.

2) Balance Sheet: Introduction to Balance Sheet -- Its significance, and importance, Classification of different items, and Significance of accounting concepts in the preparation of a Balance Sheet.

3) Profit and Loss Account: Introduction to Profit and Loss Account-- mportance of Income Measurement, classification of income and expense accounts, linkage between profit, and loss account and balance sheet.

4) Fund and Cash Flow Statement: Funds flow through a business in dynamic situation -- role of working capital, sources and uses of working capital, use of fund flow statement, and cash flow statement.

5) Accounting Records: Mechanics of recording transaction, preparation of journal, ledger and trail balance, summarization of accounts and preparation of balance sheet and profit and loss account on the basis of it.

6) Accounts for Joint Stock Companies: Importance of Joint Stock Companies, preparation of balance sheet as required by the legal frame work, linkage between a balance sheet and other financial information required by regulation, and significance of accounting concepts.

7) Financial Statement Analysis: Need and usefulness of financial statement, meaning of financial ratios and use as an aid to financial statement analysis.

8) Common issues in Accounting Records: Accounting methods for depreciation and inventory, practices adopted for negotiable instrument, investments and debentures, importance of bank reconciliation statements and prepare and understand the financial statements of a company.

9) Accounting Standards: Motivation behind the creation for Accounting Standards, their importance and role of accounting bodies responsible for Accounting Standards in India and Abroad, and Accounting Information Systems.

It is very unique to see that an accounting book written by Indian authors has chapters starting with real time illustrations. The authors have not let any stone unturned and used cases of organizations like Bharti Airtel, Hindustan Unilever, Marico Industries, and Siemens.

The pedagogy followed is unique where an illustration runs through more than one chapter and shows the connectivity between different themes and also helps the user to remember the teaching and links in the different chapters. Also some chapter has been split into individual parts wherein each part ends with an illustration for self study.

In between a chapter also depiction from real time is shown in the form of examples of companies, newspaper articles or exerts from magazines.

For users of accounting books it is very important to link the learnings of every chapter with something which shows its functionality in the real world. The authors have tried their best in doing so; with every chapter providing contents of the functionality of the learnings discussed.

The beauty of the book is that the chapters end with summary and keywords/definitions whenever required. The same is followed by self assessment questions, multiple choice questions and exercises consisting of an adequate combination of numerical problems and theory questions. Unsolved cases are also mentioned after every chapter for practices.

Apart from this, chapters also carry solved exercise which is useful for users for understanding the steps and the formulas required. One thing unique about the book is depicting Accounting Standards and providing the current changes and the usefulness of Accounting Standards in real time business situations.

The last portion of the book contains addendums consisting of:

Sample Annual Report

Indian Accounting Standards and IFRS

Comprehensive Assignment

Comprehensive Test: VIP Chaddi Pe Vaddi Offer

Comprehensive Test: Accounting Periods

Entering Accounting Records in Software

The book ends with Glossary of Terms and index.

The authors could have depicted additional international illustrations and examples which would have made the book better.

In the current scenario where management subjects are changing rapidly, accounting is not an exception. Nowadays as it is considered an important area to study so to succeed in any area of business, it is important that the books representing accounting have to stay up to date and this book is one among them. The authors have even provided teaching tools for instructors which can be accessed at <www.mhhe.com/fam3e>

This book is essentaial for students, scholars and practising managers involved in Finacial Accounting.

Skimming & Scanning

Reviewed by Ansted Iype Joseph, Assistant Professor, SCMS-COCHIN, Prathap Nagar, Muttom, Aluva - 683106, Ernakulam Dt., Email: ansted@ scmsgroup.org

Book Title: ***E-Business Strategy*** ***Text and Cases***

Authors : Paul Phillips

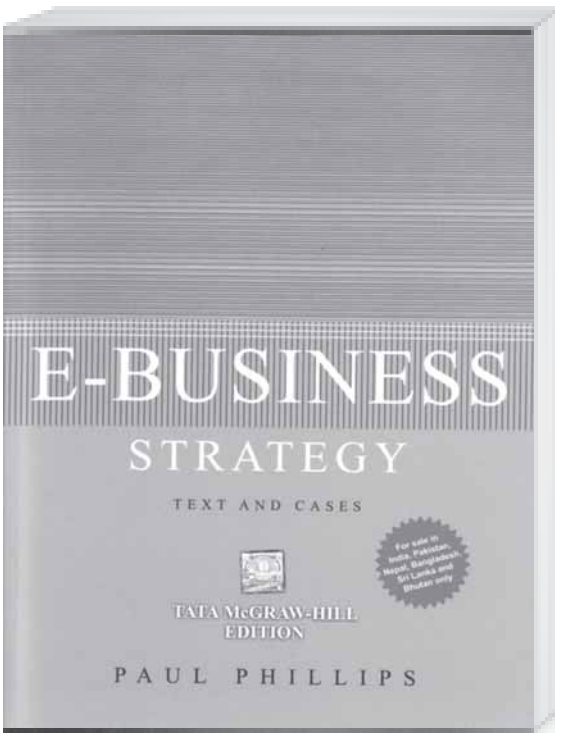
Edition : First 2011

ISBN 13 : 978-1-25-900240-3

Pages : 390

Publisher : Tata McGraw-Hills Education Private Ltd., New Delhi.

The author, Paul Phillips is Professor and Charles Forte Chair of Hotel Management at the School of Management at the University of Surrey, U.K. Paul is also Director of the Centre for Hospitality Industry Performance Research and Stream Leader for the University of Surrey's MSc programme in International Hotel Management. During his academic career Professor Phillips has published more than 30 academic papers, and in addition to the new textbook, E-Business Strategy Text and Cases, he has also published Strategic Planning Systems in Tourism and Hospitality (1998). He has won two international awards for best papers, published in the 1997 volume of International Journal of Contemporary Hospitality Management and the 1998 volume of Journal of Travel and Tourism Marketing (with Professor Luiz Moutinho).



The book consists of twelve chapters, each one covering a different but very relevant theme. The structure of each chapter is quite logical and introduces the concepts first before moving on to the main theme. All the chapters are peppered with key terms and their definitions on the side of the page where necessary. This useful feature provides the reader with instant reference without having to search for definitions within the main body of the text. At the end of each chapter one can find the summary followed by case studies. The case studies are divided into a main case study and a mini case study. These will prove useful additions to educators who wish to make available a real world E - Business scenario to their students.

The statistics quoted in the text are not up to date and hence not relevant. The statistics that the

author has presented are at least a decade old. A subject like E-Business needs to have information that is as current as possible. This presents a difficult situation for the reader who will not be able to get an accurate picture of the present state of the world of E-Business. The examples provided in the text are predominantly of European in nature. It would have been helpful if some current examples of E-Business initiatives in Emerging Economies were provided.

Chapter 1 provides a historical walkthrough of the origins of the internet and the World Wide Web. This is a good start to the subject of E-Business as it lays the foundation for further understanding of the subject.

Chapter 2 presents the reader with a view of the ever changing world of business relationships between organizations, their suppliers and their customers. It also mentions the impact of E-Business on intra-organization relationships.

The risks associated with E-Business are explored in Chapter 3. The examples of some dotcom failures and the strengths and weaknesses of their business models are provided. A key question about whether the organization is ready for E-Business is asked and the attributes required for a successful E-Business venture is discussed.

A very important aspect of E-Business namely strategic planning is highlighted in Chapter 4. The author presents the problems with traditional strategic planning systems and includes a discussion on how to develop the E-Business strategy.

A chapter of immense interest to all readers would be Chapter 5 which details eleven types of E-Business models. The content of this chapter would have been stronger with the addition of current technologies used by E-Businesses.

Chapter 6 draws attention to the flexibility and structural abilities required by E-Business organizations that are faced by a dynamic environment. The importance of E-Business infrastructure is examined in this chapter.

Every business needs to know how to leverage the unique features of the web in order to gain a competitive edge over their competitors. Chapter 7 will help the reader appreciate the salient issues pertaining to web marketing.

The meteoric rise of dotcoms in the late 90s saw a lot of investors become overly excited and subsequently lose their money in the dotcom bust. Chapter 8 talks about financial appraisal of E-Business organizations and promotes understanding of the complexity of valuing E-Business companies. Some cash-based and new financial valuation techniques are also presented.

Chapter 9 takes a deviation from the business aspect discussed thus far in all the other chapters and moves into the technical aspect of online resources and their deployment. At the end of this chapter the reader will be able to understand how meta-search engines work and also identify the best-practice web searching techniques.

The understanding of virtual organizations with emphasis on virtual market space, virtual teams and trust are given emphasis in Chapter 10. The importance of virtual organizations which are independent and networked but geographically dispersed is examined.

Any publication about E-Business would be incomplete without a discussion of the various agencies involved in the governance of the online space. In Chapter 11, a list of basic crimes, fraud and deceit acts performed on the internet are presented in order to educate the reader.

The final chapter in the book summarises the strategies learnt in the preceding chapters of this book. A snapshot of European E-Commerce is provided at the end of this chapter.

The author presents the topic of E-Business strategy quite well with the content neatly organized. The shortcomings of this text lie in the fact that the examples are primarily European and there is a dearth of recent statistics which is a major handicap. The book however presents the subject well from a business's point of view and would be a good read for those interested in starting an E-Business venture.

Skimming & Scanning

Reviewed by Vijay Anand Joseph, Assistant Professor, SCMS-COCHIN, Prathap Nagar, Muttom, Aluva - 683106, Ernakulam Dt., Kerala, Email: vijay@scmsgroup.org

Book Title : ***Supply Chain Management – A Management Approach***

Authors : Amity Sinha and Herbert Kotzab

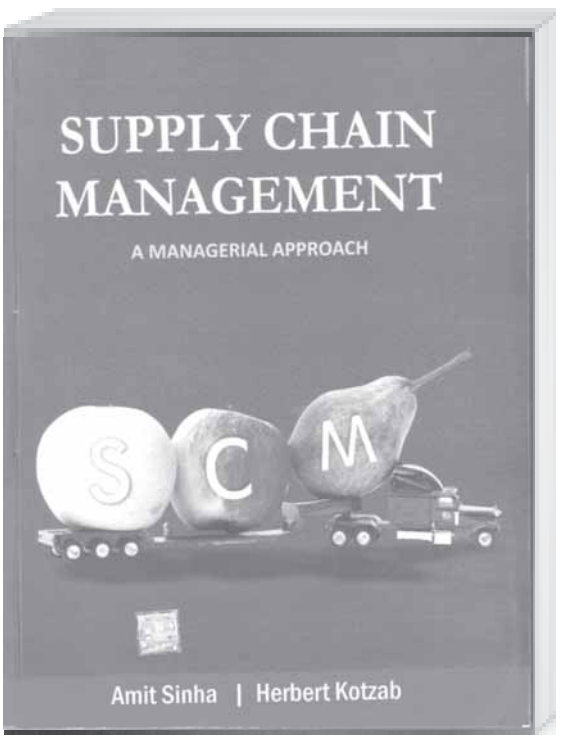
Edition : 2012

ISBN 13 : 978-0-07-133343-6

Pages : 413

Publisher : Tata McGraw-Hills Education Private Ltd., New Delhi.

A supply chain is the flow of processes of moving goods from the customer order through the raw materials stage: supply, production, and distribution of products to the customer. Supply chain management definition is not new for businesses because they are being used for many years now. Supply chains are continually subject to forces that are in constant changes that involve uncertainties and risks. Designing, managing and controlling such chains require a thorough understanding of the concepts and mechanism that add strength to the operation of supply chain.



This text outlines an understanding of the basic facts of the supply chain management. The design, process execution and control of the supply chain are presented as a management process. This book is organized into six sections covering different concepts and processes involved in supply chain management. The supply chain management is well knitted and executed to the fullest with the help of Information Technology and most of the chapters includes IT tools in supply chain division.

Part-I has two chapters. Chapter one presents an introduction to general supply chain management process, its goals, strategies, phases and challenges. Chapter two briefs about the performance measures in supply chain. This chapter explains about the relationship between measurement and management and gives a general idea about the performance indicators.

Part-II includes chapters three, four and five and provides information on supply chain network design and inventory management. The author's language is more of technical when explaining the data management section. Chapter four

presents an interesting discussion on the contribution of network theory to our understanding of how inter-organizational relationships should be managed.

Part-III comprises chapters six, seven, eight and nine and it deals with supply chain planning and transportation management. It starts with the basic that is from demand and demand forecasting and ends up with the transportation management where the demanded goods are delivered.

Part-IV consists of chapters ten, eleven and twelve where the author discusses the sales, production and warehouse management.

Part-V includes chapters thirteen and fourteen where the author talks about the procurement and supplier relationship management and IT integration and supply chain management automation. One of the most important aspects of supply chain management is procurement and it is outlined here in this chapter. Sharing information is important to the management of relationships, and Information Technology (IT) is an important facilitator in this regard. This chapter provides the latest ways in which IT can be used to inform the decision making process and mitigate uncertainty in the supply chain. The concepts explained in IT integration part are more related to the SAP modelling of supply chain management and is presented in a good method as ERP plays a very important role in supply chain design and execution.

The best part of the book is Part-VI which discusses supply chain practice in major industry like Automobile, Oil and Gas, Pharmacy, FMCG, PC and Fashion industry. This section is the highlight for the book and will be very helpful for the readers to relate supply chain concepts practised in different industries.

This is a very comprehensive book from the authors. Being worked in the field of SCM I could relate with the theory or logic part of the same, as described in the pages of this book. All chapters have relevant case studies, and the book even has few games, like a beer game and simulation SCM game. The cases discussed are very useful which grounds the exposition in the real world. The sequence of the book is appropriate. A welcoming addition to the text would be the challenges that supply chain management is facing in real time situations. This book is a very good book for beginners and especially to people who wants to peruse career as a business analyst in ERP implementation projects. The language used is very simple and the ideas are presented in a logical sequence and in accessible style.

It makes excellent reading for managers, academics and policy makers.

SCMS JOURNAL OF INDIAN MANAGEMENT

Aims and Scope

The *SCMS Journal of Indian Management* is a **blind peer-reviewed Journal.** The Journal deems it its mission to submit to the readers fresh fruit of management thoughts and rich cream of current innovative research. The format of the Journal is designed reader-friendly. The academia and the corporates have an easy access to the Journal.

The Journal looks for articles conceptually sound, at once methodologically rigorous. The Journal loves to deal knowledge in management theory and practice individually and in unison. We wish our effort would bear fruit. We hope the Journal will have a long life in the shelves catering to the needs of b-students and b-faculty.

- § Proposals for articles that demonstrate clear and bold thinking, fresh and useful ideas, accessible and jargon-free expression, and unambiguous authority are invited. The following may be noted while articles are prepared.
- § What is the central message of the article you propose to write? Moreover, what is new, useful, counterintuitive, or important about your idea?
- § What are the real-world implications of the proposed article? Can the central message be applied in businesses today, and if so, how?
- § Who is the audience for your article? Why should a busy manager stop and read it?
- § What kind of research have you conducted to support the argument or logic in your article?
- § What academic, professional, or personal experience will you draw on to make the argument convincing? In other words, what is the source of your authority?
- § The manuscript of reasonable length shall be sent to the Editor—*SCMS Journal of India Management* (Both for postal and electronic submission details are given here under).

The manuscript should accompany the following separately:

- § An abstract (about 100 words), a brief biographical sketch of above 100 words for authors describing designation, affiliation, specialization, number of books and articles published in the referee journals, membership on editorial boards and companies etc.
- § The declaration to the effect that the work is original and it has not been published earlier shall be sent.
- § Tables, charts and graphs should be typed in separate sheets. They should be numbered as Table 1, Graph 1 etc.
- § References used should be listed at the end of the text.
- § Editors reserve the right to modify and improve the manuscripts to meet the Journal's standards of presentation and style.
- § Editors have full right to accept or reject an article for publication. Editorial decisions will be communicated with in a period of four weeks of the receipt of the manuscripts.
- § All footnotes will be appended at the end of the article as a separate page. The typo script should use smaller size fonts.

Address for Submission

Electronic Submission : E-mail: editor@scmsgroup.org/
scmseditorcochin@yahoo.com
The electronic submission must be in the form of an attachment with a covering letter to be sent as e-mail

Post Submission : The Editor
SCMS Journal of Indian Management,
SCMS New Campus, Prathap Nagar, Muttom,
Aluva – 683106, Kochi, Kerala, India
Ph : +91 484 2623803, 2623804, 2623885, 2623887
Fax : +91 484 2623855

CERTIFICATE OF REGISTRATION

Title of Newspaper	:	***SCMS JOURNAL OF INDIAN MANAGEMENT***
Language (in which it is to be published)	:	English
Registration Number of the Newspaper	:	KERENG/2009/32718
Periodicity of the publication and the day on which it is published	:	Quarterly 1 January, 1 April, 1 July, and 1 October
Retailing Selling price of the Newspaper	:	₹ 1000/- (One Year Subscription)
Publisher's Name	:	Dr. D. Radhakrishnan Nair
Nationality	:	Indian
Address	:	25/74, Ambady, Kothamangalam-686691, Ernakulam.
Place of publication (with complete Postal address)	:	Prathap Nagar, Muttom, Aluva-683106, Ernakulam District, Kerala.
Printer's Name	:	Dr. D. Radhakrishnan Nair
Nationality	:	Indian
Address	:	25/74, Ambady, Kothamangalam-686691, Ernakulam.
Name of the Printing Press (with complete address where printing is to be conducted)	:	Maptho Printings, Kalamassery, Cochin-683104
Editor's Name	:	Dr. D. Radhakrishnan Nair
Nationality	:	Indian
Address	:	25/74, Ambady, Kothamangalam-686691, Ernakulam.
Owner's Name	:	SCMS-COCHIN
Place	:	Prathap Nagar, Muttom.

SCMS Journal of Indian Management
SCMS-COCHIN
SCMS New Campus, Prathap Nagar
Muttom, Aluva-683 106, Kochi, Kerala, India
Ph: 91-484-262 3803 / 262 3804 / 262 3885 / 262 3887 Fax: 91-484-262 3855
E-mail: editor@scmsgroup.org / scmseditorcochin@yahoo.com
Website: www.scmsgroup.org

SCMS Journal of Indian Management
a quarterly publication
of
SCMS-COCHIN

Dates of Release: -

Number I	–	**January-March on 1 April**
Number II	–	**April-June on 1 July**
Number III	–	**July-September on 1 October**
Number IV	–	**October-December on 1 January**

SCMS Journal of Indian Management

Subscription / Advertisement Form

Name :

Address :

City :

Zip Code :

Country :

E-mail :

Phone :

Draft Number :

(in favour of "SCMS Journal of Indian Management, Cochin")

Subscription Rates	1 Year	2 Years	Per Issue
Companies/Academic Institutes :	1000 ($60)	1800 ($100)	250 ($15)
Individual :	800	1500	200

Advertisement Rate

Outside back cover : ₹ 30,000 in colour, ₹ 15,000 in black and white

Inside front cover : ₹ 17,500 in colour, ₹ 10,000 in black and white

Inside back cover : ₹ 15,000 in colour, ₹ 6,000 in black and white

Inner full-page : ₹ 7500 in colour, ₹ 4,000 in black and white

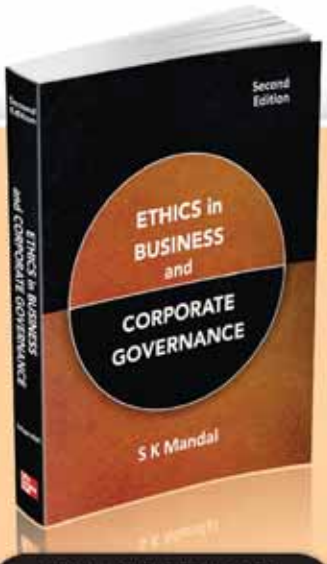
Inner half-page : ₹ 5000 in colour, ₹ 3,000 in black and white

Contact:

Editor, SCMS Journal of Indian Management, SCMS New Campus, Prathap Nagar, Muttom,
Aluva - 683106, Ernakulam, Kerala, India.
Phone: 91-484-262 3803 / 262 3804 / 262 3885 / 262 3887 Fax: 91-484-262 3855
E-mail: editor@scmsgroup.org , Journal Website: <www.scmsgroup.org/scmsjim>

New From

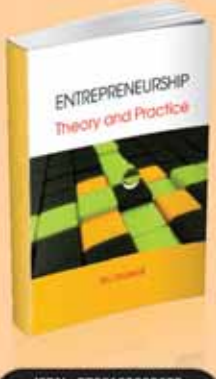
Tata McGraw-Hill



ISBN : 9781259004858
PRICE : ₹425.00

ISBN : 9780071078139
PRICE : ₹350.00

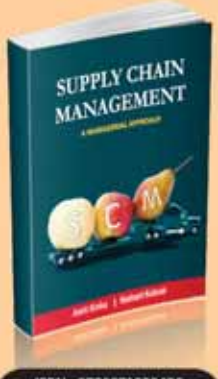
ISBN : 9780071333337
PRICE : ₹375.00



ISBN : 9788182092693
PRICE : ₹395.00

ISBN : 9781259001642
PRICE : ₹525.00

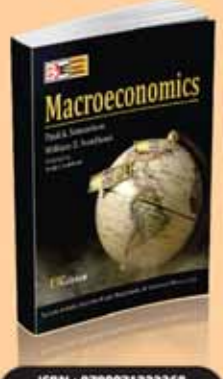
ISBN : 9780071077927
PRICE : ₹399.00



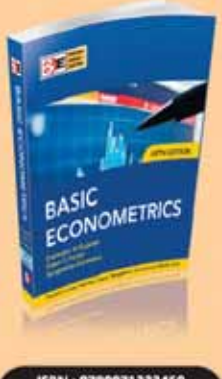
ISBN : 9780071333436
PRICE : ₹450.00

ISBN : 9780071333467
PRICE : ₹599.00

ISBN : 9780071077910
PRICE : ₹450.00



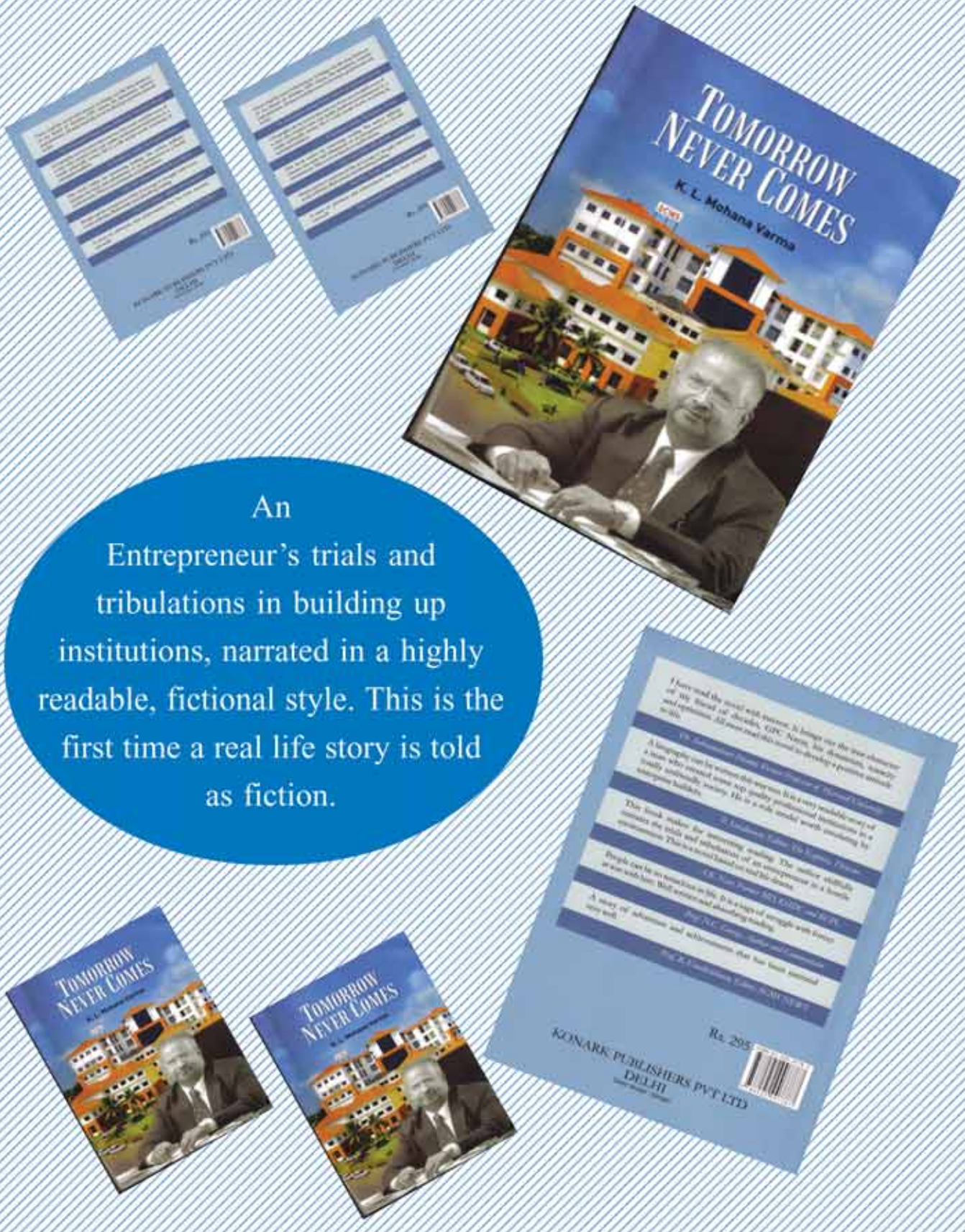
ISBN : 9780071333368
PRICE : ₹495.00



ISBN : 9780071333450
PRICE : ₹599.00

Mc Graw Hill Education

Tata McGraw-Hill Education Pvt. Ltd.
B-4, Sector - 63, Noida - 201301,Tel.: +91-120-4383400
Fax.: +91-120-4383401-403
Email: vijay_sarathi@mcgraw-hill.com



An

Entrepreneur's trials and tribulations in building up institutions, narrated in a highly readable, fictional style. This is the first time a real life story is told as fiction.

Copy available at the Publication Department, SCMS Group of Educational Institutions,

Cochin-683106

Registration Number: **KERENG/2009/32718**

Edited, printed and published by Dr. D.Radhakrishnan Nair on behalf of SCMS-COCHIN [School of Communication and Management Studies] and printed at Maptho Printings, Kalamassery, Cochin-683104 and published at Muttom, Aluva-683106, Cochin.

ISSN-0973-3167

0973-3167