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Overview

Individuals need motivation to work. Keeping employees motivated is one of the key functions of any business organisation as it leads to increase in overall productivity and profitability of the organisation.

A well-designed salary structure can be used as a powerful tool for encouraging the employees to achieve higher goals set by the management. It can also be used to attract and retain the right kind of workforce possessing the best competence required for the organisation. Today, employee turnover is a common source of frustration for several managements because it eats up the profit of business.

It is in this context that we bring to you as lead article in this issue a research paper on Compensation Management.

Development of women has always been the central focus of our poverty eradication schemes. The Kerala model of women empowerment programmes has proved to be highly successful and has gained international acclaim. Several governments and agencies engaged in poverty alleviation are interested in taking a cue from the Kerala experience.

Therefore, our second lead article is a study paper on 'Women Empowerment through ICT Enterprises in Kerala.'

I hope you will enjoy reading these and other articles relating to a variety of topics like mutual fund, higher education, risk analysis, social banking, middle level management, solvency in Indian IT companies, working capital management and global business environment.

Dr. G. P. C.NAYAR

Chairman, SCMS Group of Educational Institutions

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Editors

Editorial Board

Editorial

We in India have developed a system of teaching and learning faithfully abiding by the precepts followed in the west. This is more so in the modern areas of learning like management studies. Perhaps, rather than conveniently forgetting the enlightened system that was in existence, we should have focused more on that time-old, time-tested holistic approach to teaching and learning. Our higher education field has been profusely growing quantitatively, not qualitatively. In the appendix to the Book, *Eckhart Tolle* and *Sri Aurobindo,* A. S. Dalal discusses "The Three Instruments of the Teacher."

Teaching, Example, and Influence are the three instruments of the Guru. The wise teacher will not seek to impose himself or his opinions on the passive acceptance of the receptive mind. He will throw in only what is productive and sure as a seed which will grow under the divine fostering within. He will seek to awaken much more than to instruct the receptive mind. He will aim at the growth of the faculties and the experiences of the disciple by a natural process and free expansion. He will give method as an aid, as an utilizable device. It is not treated as an imperative formula or a fixed routine. He will be on his guard against any turning of the means into a limitation, against the mechanizing of process. His whole business is to awaken the divine light and set working the divine force of which he himself is only a means and an aid, a body, or a channel.

The Example is more powerful than the instruction. But it is neither the example of the outward acts nor that of the personal character which is of more importance. These have their place and their utility. What will stimulate aspiration in others is the central fact of the divine inspiration within him governing his whole life and inner state, and all his activities. This is the universal and essential element. The rest belongs to individual person and circumstance. It is this dynamic realization that the *Sadhaka* must feel and reproduce in him according to his own nature. He need not strive after an imitation from outside which may well be sterilizing than productive of right and natural fruits.

Influence is more important than example. Influence is not the outward authority of the teacher over his disciple, but the power of his contact, of his presence of the nearness of his soul to the soul of another, infusing into it, even though in silence that which he himself is, and possesses. This is the supreme sign of the master. Can we aspire for such an ideal education system?

Dr. D. Radhakrishnan Nair

Realigning Fixed and Variable Pay
Compensation Management

Pankaj M. Madhani

Abstract

The business cycle has a significant impact on the performance of the organizations. It influences overall compensation costs. The business cycle involves understanding different phases of the economic activity such as periods of expansion, in which there is broad economic growth, and periods of contraction, in which there is broad economic contraction. Understanding these phases, it is important to mitigate negative impacts of business cycle on the organizations. Realigning fixed and variable pay in the compensation structure, helps organizations in mitigating adverse impact of recession. This article provides a compensation management framework and explains, with the empirical analysis, fixed and variable pay relationship.

Ever changing needs of customers, increased market competition, shortened product life cycles and the increased pressure to enhance performance and profitability of the sales organizations have motivated human resources (HR) managers to identify and implement effective compensation plans for sales employees. Intense global competition and shrinking customer bases have accelerated the need to identify determinants of effective performance within the sales organizations (Babakus *et al.*, 1994). The effective design of compensation plan will motivate employee behaviour, which then facilitates accomplishment of organization objectives.

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Business cycle has a significant impact on the sales and profitability of the business organizations and directly influences overall compensation costs. Business cycle phases are characterized by changes in the dynamics of the economy. In particular, expansion phases are periods when economic activity tends to trend up such as recovery and growth period, whereas recession phases are periods when economic activity tends to trend down such as period of recession and slump. Understanding these phases has been the focus of management researchers to mitigate negative impacts of business cycle on the organizations. Realigning fixed and variable pay in the compensation structure helps organizations in maintaining proper leverage ratio for mitigating adverse impact of contraction phase such as recession and capitalizing on positive influence of business cycle expansion phase. This article provides a compensation management framework for properly designing pay structure, explains with the empirical analysis fixed and variable pay relationship, and management of operating leverage during different stages of business cycle for effective compensation management in the organizations.

Significance of Compensation Management

As HR managers strive to pursue excellence with their recruitment, selection, training, and compensation interventions, it is increasingly important to demonstrate that their comprehensive efforts add value to the organization. HR managers are always in search of ways to motivate and reward employees of the organization, which in turn will increase their motivation, performance, and productivity level. One primary HR tool that is used to influence motivation and performance level is compensation management (Lawler, 1971). As pay is a strong communicator between an organization and its employees, its success or failure can ultimately have great impact on the overall success of the organization (Hill, 1993). Furthermore, pay is a powerful communicator of organizational goals and priorities across all levels in the organization; therefore, organizations that expect to be more successful must make employees partners in their success (Schuster and Zingheim, 1993). Sales team's performance is affected not only by factors specific to them such as skill and aptitude of team members, but also by other organizational factors such as performance based reward structures (Churchill *et al.,* 1981).

The purpose of sales compensation is to:

1. Recognize and reward the role fulfilled by the sales force, maximize sales revenue from customers as well as profit margin and market share,
2. Align the pay opportunities of the sales force with the long-term revenue objectives of the organization by creating an environment of mutual trust and confidence,
3. Attract, retain and motivate the sales force in the organization.

Sales compensation plans are one of the most effective tools to positively influence sales performance and ensure that sales performance is aligned with corporate goals. Designing a sales compensation plan is an art and not a pure science, as pay structure is a complex phenomenon driven by many internal and external factors. Designing sales people's compensation programme is strategic in nature since it will affect motivation of the sales people and profitability of the organization. Compensation plans of organizations are strategically designed when rewards are linked to activities, attributes and work outcomes that support the organization's strategic direction and strategic goals (Howard and Dougherty, 2004). Properly designed and deployed sales compensation plans drive superior performance of the sales people, thereby achieving and even surpassing sales targets of organization without crossing compensation budgets (Conlin, 2008).

Consequently, it is not surprising that firms spend significant time and effort designing reward structures to boost performance of sales employees in the organization. The key to motivating sales people who help realize the organization's goals lies in how the sales organization's incentives and pay structure relate to their goals. Accordingly, some marketing firms have strategy to recruit good sales employees, pay them well, and then expect good performance, using a fixed pay system. As firms increase salaries and wages, inevitably there is an escalation of payroll expense. Compound that by an adjustment each year for time scale increments, the overall impact on pay pool is significant. There is also the carry-over effect that this fixed base pay expense may have on the future cost of retirement and other fringe benefits. However, some firms have strategy to recruit good sales employees, expect them to perform well and pay them well if performance meets expectations or targets, using variable pay or performance-based pay. Variable pay ties individual revenue generation to the financial success of the firm.

Fixed Versus Variable Pay

The main goal for an HR manager is to hire high quality and competent sales employees to earn the sales organization as much revenue and profit as possible. Once these employees have been hired, inducted, and trained, HR managers need to find a way to motivate them. When organizations think of motivating sales force, they think of ways to reward their achievement and performance through an appropriate compensation strategy. Sales compensation structure comprises two core elements - fixed pay and variable pay as explained below:

1. Fixed pay, also known as base pay, is non--discretionary in nature and does not vary according to performance or results achieved by the sales employee. Fixed pay compensation is usually determined by the sales organization's overall pay philosophy and compensation structure. Variable pay, also known as pay at risk, changes directly with the level of performance or results achieved by the sales force. Variable pay provides incentives for sales force to focus on the quality of the sale-deals that generate profit and cash flow.

2. Variable compensation is a one-time earning that must be re-established and re-earned each performance period. Variable pay can be short-term or long-term. Short-term incentive pay is intended to focus and reward performance of employees over a period of one year or less while, long-term incentive pay is intended to focus and reward performance of employees over a period longer than one year.

Each element of the sales compensation in pay structure of the sales organization encourages and discourages certain behaviours of sales employees. For example, a straight commission plan encourages the quickest and easiest sale with short-term focus to increase revenue as it is motivated by commission but discourages strategic behavior that has a longer-term payoff such as acquiring new customers or emphasizing certain strategic product lines. Straight salary or fixed pay, on the other hand, encourages loyalty, steadiness, and attention to service as sales efforts are not motivated by revenue or short-term targets. However, straight salary discourages individual initiative. A well-designed compensation plan with the right pay mix will encourage sales people to directly support the organization's business objectives.

Significance of Variable Pay in Compensation Management

Progressive organizations are seeking alternative pay methods to both maintain cost controls on overall compensation expenses and increase employee performance and productivity. One possible alternative is variable pay for performance, a method of paying employees for successful attainment of specific sales performance objectives. Variable pay design can include incentives for achievement based on individual performance, group performance and/ or company performance. Variable pay creates a belief among employees that good performance will lead to higher overall pay, minimize the perceived negative consequences of performing well or surpassing performance targets (fear that the performance bar will be raised).

Variable pay is viewed as a mechanism of aligning and fine-tuning the interests of employees with those of the employer. Proponents of variable pay systems claim that such systems improve employee motivation, create a culture in which employees genuinely care about organizational effectiveness and integrate an organization's labour costs to its ability to pay (Guthrie and Cunningham, 1992). In recent times, more emphasis is laid on the use of variable compensation plans instead of fixed forms of pay mainly to enhance employee morale and productivity and thus overall firm performance (Marks, 2001). Variable pay schemes include individual, group and organizational forms of reward and remuneration such as bonus, incentive, profit share and various pay-for-performance schemes. They essentially are based on a principle that an individual's pay should vary based on the performance of the individual, group, or organization, in order to encourage efforts of an individual to higher level.

Business Cycle: Major Impact on Organizations

The term *cycle* is used to explain a process that moves in sequences between a series of clearly identifiable phases in a recurrent or periodic pattern. When such a pattern is exhibited in the overall level of economic activity, it is called the business cycle (Hamilton, 2005). The business cycle is the upward and downward movements of levels of gross domestic product (GDP) and refers to the period of expansions and contractions in the level of economic activities (business fluctuations) around its long-term growth trend, as shown in Figure 1.

Figure 1. Typical Business Cycle and Its Different Stages

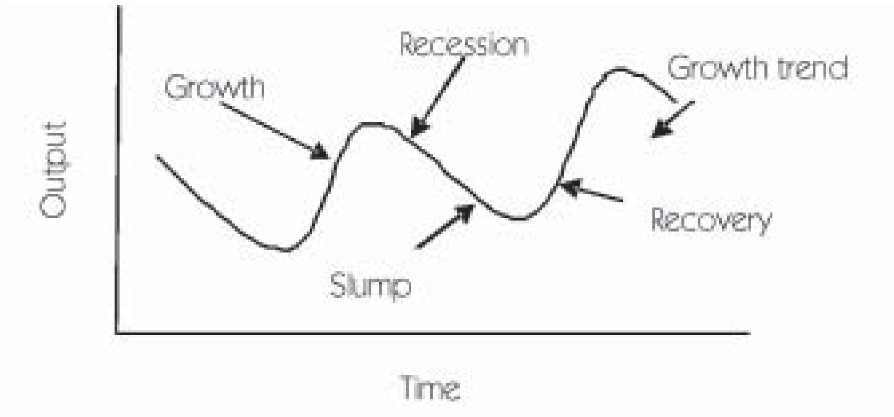


Figure 1, illustrates the four distinct stages of the business cycle: the "growth" stage as the economy in terms of GDP expands, a turning point where the expansion of economy stops and "recession" starts with a downward movement of GDP as economy begins to decline. The fall of GDP accelerates during the "slump" and finally another turning point that marks the end of the contraction and a "recovery" or upturn begins in which the economy once again expands. Each stage of the business cycle, shown as a classical sine wave in Figure 1, presents organizations with unique set of challenges and opportunities particular to that stage in changing course of business performance, as described below (Madhani, 2010a).

Recovery Stage

As consumer confidence grows, leading to increased borrowing and spending during the recovery stage of business cycle, firms increase output and build up stock levels. Ultimately, spare capacity is exhausted, new investment occurs and unemployment falls. In the recovery stage, the firm seeks to grow the existing market for the product.

Growth Stage

In the growth stage of business cycle, the firm seeks to build brand preference and increase market share as economy is booming. The main strategy in the growth stage of business cycle is to penetrate deeper into existing segments and develop new ones for higher growth rates.

Recession Stage

In recession stage of economy, the strong growth in sales diminishes. The primary objective at this point is to defend market share while maintaining profit levels. Firms mainly focus on efficiently serving and retaining existing customers.

Slump Stage

During this stage of business cycle, organizations emphasize cost reduction and efficiency improvement, protect critical customer relationships and exit unprofitable segments as major focus is on the survival of the organization.

Beating Business Cycle through Effective Compensation Management

Organizations need to make sure that their compensation package will be in line with a continuous changing business environment. As a business cycle portrays the kinds of changes that occur to the performance of the organization in the terms of product demand and sales revenue during the different stages, it can become a valid framework for integration of sales force management and compensation strategy of the organization. Business cycles are a part of any organization, and coping effectively is also a part of the managerial decision-making process. An effective sales compensation plan is not only about making the right decisions about compensation structure but also about making timely decisions.

Although, sales organizations devote considerable time to developing a compensation strategy for their sales force that aligns sales' goal with overall objective of the organization, few focus much thought on how sales force compensation needs to change over the external factors such as business cycle stages. The design of an appropriate compensation structure - fixed versus variable pay for the sales organization should begin with a thorough understanding of the business cycle stages. If this process is studied thoroughly, determining the appropriate compensation structure between base pay and variable pay becomes relatively easy. Sales organizations that freeze or cut salaries or pay below market rates during expansion stage of business cycle will risk losing valuable sales employees and will struggle to attract the best sales talent. On the other hand, sales organizations that pay too much during recession period will risk damaging their financial health and ability to hire the sales employees they need to thrive in difficult market conditions.

At the commencement of a major economic downturn, however, it takes much time for HR managers to adjust their pay pool and pay horizons to a new situation of austerity demanded by external environment. Hence, liberal compensation policy often continues even after the economic fundamentals have deteriorated. The longer this misconception of external events such as recession occurs, the more sudden and sharper the response of organization when it comes, will be. One of the main challenging tasks of HR managers is determining how to minimize the impact of downward stretch of the business cycle over time by changing the pay level and pay mix of the sales force in the organization. The sales force compensation structure that works during the recession and slump stages when the business is contracting is quite different from what works well when the business is expanding and pass-ing through recovery and growth stages of business cycle. Sales organizations that change their sales force pay structures in ways that correspond loosely to the different stages of business cycle an organization goes through are more likely to be successful than those that do not.

Significance of Operating Leverage and its Impact on Firm Performance

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 computed as the contribution margin (CM) divided by before-tax profit (EBIT). Mathematically,

$$\text{Operating leverage} = \frac{\text{CM}}{\text{EBIT}}$$

Where,

$$\text{CM} = \text{Sales} - \text{Variable cost}$$

Hence,

$$\text{Operating leverage} = \frac{\text{Sales} - \text{Variable cost}}{\text{EBIT}}$$

If a high percentage of the firm's total costs are fixed costs, then the firm is said to have a high degree of operating leverage (DOL). DOL is defined as the percentage changes in earnings before interest and taxes (EBIT) that result from a percentage change in units sold (Sales). DOL is known as the degree to which a firm or project relies on fixed costs as fixed costs act like a lever in the sense that a small percentage change in operating revenue can be magnified into a large percentage change in operating cash flow. Mathematically,

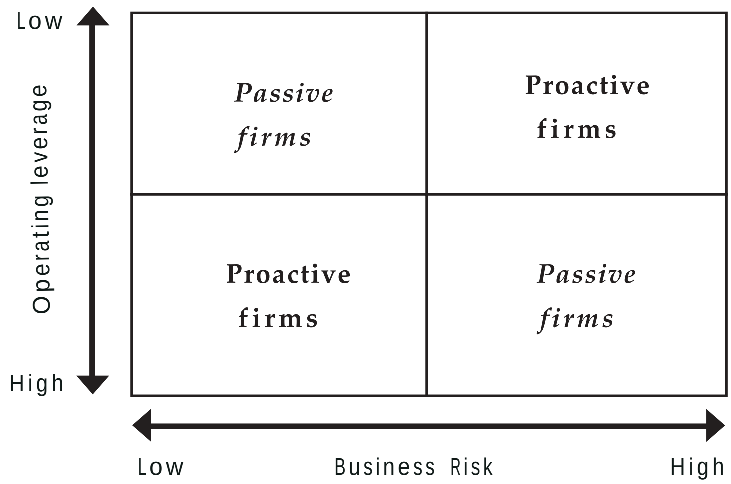
$$DOL = \frac{\%\Delta EBIT}{\%\Delta SALES}$$

Other things being equal, the lower the degree of operating leverage for the firm, the lower the chances for loss with a decrease in sales. For example, DOL of 4 will mean a 80 percent reduction in profits due to 20 percent decrease in sales, and in that order, DOL of 3 will mean a 60 percent reduction in profits due to 20 percent decrease in sales. However, during growth period, higher operating leverage means higher increase in profit for a given increase in sales. For example, DOL of 4 will mean a 80 percent increase in profits due to 20 percent increase in sales, while DOL of 2 will mean a 40 percent increase in profits due to 20 percent increase in sales.

The risk associated with an investment increases as operating leverage (i.e., fixed costs) increases (Lev, 1974) as the cash flow associated with an investment which is equal to its total costs (i.e. fixed and variable costs) subtracted from its sales revenue, carries more downside risk (i.e., risk when sales revenue falls) when fixed costs are high. 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 (Madhani, 2010b). Business risk is greatly influenced by the amount of fixed costs used in a firms 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 Figure 2, *proactive* firms will employ strategy of reducing operating leverage when business risk is high especially influenced by external factor such as recession. Similarly, *proactive* firms will increase operating

Figure 2. Relationship of Business Risk and Operating Leverage

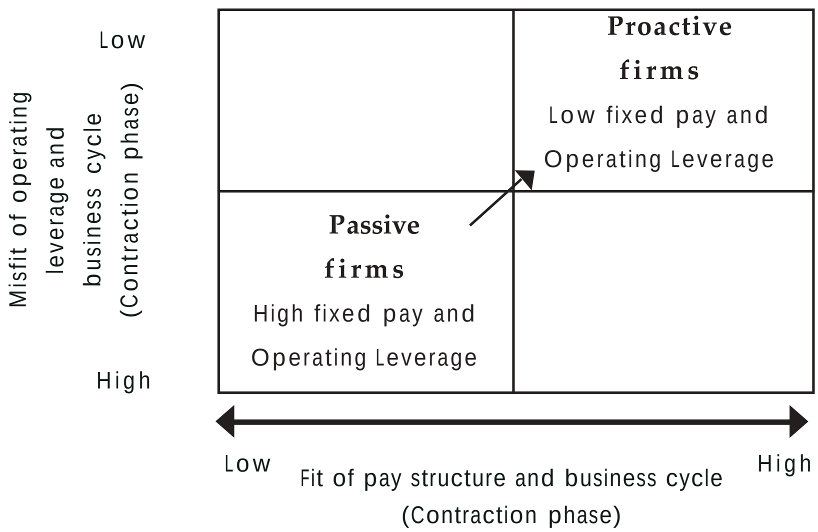


(Source: Matrix developed by author)

leverage when business risk is low, such as growth stage of business cycle. However, *passive* firms do not change their operating leverage and compensation structure by realigning fixed and variable pay hence; they continue to misalign operating leverage with different stages of business cycle. *Passive* firms continue to give higher level of pay and higher proportion of fixed pay in compensation structure even after economy enters in recession and sales revenue of firm declines. Hence, *passive* firms have high operating leverage during recession period. As economic slowdown such as recession necessitates a rapid response, *proactive* firms realign their cost structure by reducing fixed cost and increasing variable cost. By this way, *proactive* firms reduce operating leverage and hence reduce business risk. *Passive* firms that tend to recognize the changing dynamics of external environment will continue to lose value to more nimble, proactive firms.

Hence, when a group of employees is paid under a variable, rather than fixed, compensation system, it provides better fit between pay structure and business cycle stage (i.e. recession). As variable pay reduces operating leverage, it also reduces misfit between operating leverage and business cycle stage (i.e. recession). This is shown in Matrix of Figure 3.

Figure 3. Relationship between fit of Pay Structure and Business Cycle and Misfit of Operating Leverage and Business Cycle (Contraction Phase)



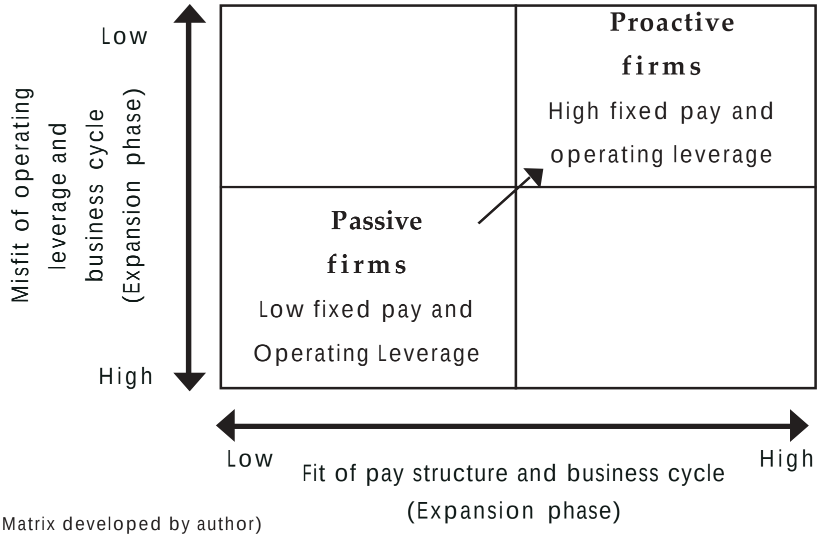
(Source: Matrix developed by author)

During expansion phase of business cycle when business risk is low, high DOL is preferred. High DOL means that for a given percentage increase in sales, corresponding change in earnings before interest and taxes (EBIT) will be magnified by multiple of DOL. Hence, *proactive* firms maintain higher fixed pay in pay structure and hence higher operating leverage during expansion phase of business cycle as shown in Figure 4.

Beating Recession through Effective Compensation Management: An Illustration

During a period of recession, a 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. These results in decreased

Figure 4: Relationship between fit of Pay Structure and Business Cycle and Misfit of Operating Leverage and Business Cycle (Expansion Phase)



(Source: Matrix developed by author)

information asymmetry between firms and other stakeholders, and, with a decrease in information risk premium, beta, or the market risk of the firm will also decrease. Decrease in market risk of the firm, will also decrease cost of capital. Realigning of fixed and variable pay in compensation structure, offers HR managers enough flexibility to deal with market variability and economic changes such as business cycles.

Breakeven point (BEP) is a no loss–no profit situation and is computed as total fixed cost divided by unit contribution margin, whereas BEP in sales is computed as total fixed cost divided by the contribution margin ratio. The variable portion of compensation costs grows larger only if the firm's revenue grows larger. To illustrate the impact of variable compensation on operating leverage and BEP, assume that during a period of recession, a marketing firm employs sales persons on a fixed salary of $80,000 (*base case*). With beginning of recession, marketing firm (*proactive*) takes proactive actions to change cost structure from fixed to variable pay. Hence, firm employs sales persons on a variable pay to reduce fixed cost. Accordingly, firm employs a sales person on a commission-only basis at 20 percent commission on sales. Hence, the unit variable cost for the proactive firm increases from $3 to $5, whereas its fixed cost decreases from $190,000 to $110,000. As explained above, *proactive* firm can improve its financial performance by reducing its operating leverage and BEP, as a result of shifting more compensation costs from a fixed to a variable form. Table 1 shows calculation for operating leverage and BEP.

As calculated in above illustration, 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 operating leverage.

Hence, a low DOL signals the existence of a low portion of fixed costs. The rationale underlying this computation is that as variable costs are substituted for fixed costs, the contribution margin as a percentage of income before taxes decreases. With other conditions remaining same, it will also decrease the beta or market risk of the firm. Shifting to more variable compensation also helps to reduce a firm's BEP as shown in Figure 5, which results in the firm being able to become profitable more quickly. Hence, *proactive* firm has lower decrease in before-tax profits, a

Table 1: Realigning Fixed and Variable Pay of a Sales Organization during Recession

No.	Calculation	Growth Period	Recession Period	
		Base case	*Proactive Firm*	*Passive Firm*
1	Unit sales (Monthly)	40000	36000	36000
2	Decline in Sales due to recession (%)		-10	-10
3	Unit selling price ($)	10	10	10
4	Sales revenue ($) = (1) x (3)	400000	360000	360000
5	Unit variable cost ($)	3	3	3
6	Variable cost = (5) x (1)	120000	108000	108000
7	Unit contribution margin ($) = (3) – (16)	7	5	7
8	Contribution margin ($) = (7) x (1)	280000	180000	252000
9	Contribution margin ratio = (7) / (3)	0.7	0.5	0.7
10	Fixed pay ($)	80000	0	80000
11	Other fixed overhead ($)	110000	110000	110000
12	Total fixed cost ($) = (10) + (11)	190000	110000	190000
13	Sales Commission (%)	0	20	0
14	Variable pay cost ($) = (4) x (13)	0	72000	0
15	Total variable cost ($) = (6) + (14)	120000	180000	108000
16	Total variable cost /unit ($) = (15) / (1)	3	5	3
17	Total cost ($) = (12) + (15)	310000	290000	298000
18	Before tax profit (EBIT) ($) = (4) – (17)	90000	70000	62000
19	Degree of operating leverage (DOL) = (8) / (18)	3.11	2.57	4.06
20	Break-even point (BEP) ($) = (12) / (9)	271429	220000	271429
21	Break-even point (Units) = (20) / (3)	27143	22000	27143
22	Beta (Estimated)		Low	High
23	Cost of Capital		Low	High
24	Decline in profitability due to 20% decrease in sales (%) = 0.2 x (19)		51	81

(Source: Calculated by author)

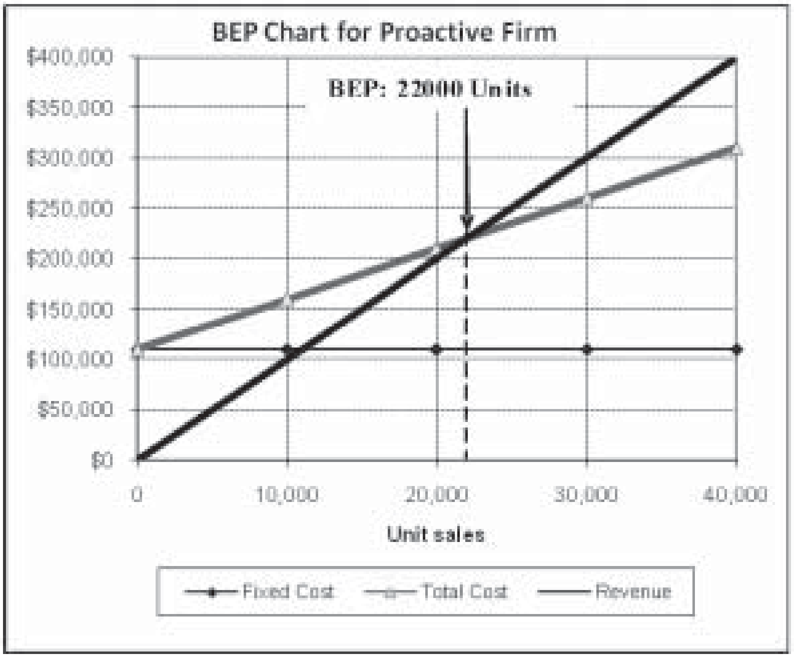
lower BEP, a lower degree of operating leverage, lower market risk or beta, lower cost of capital and its profits vary less with changes in sales volume as shown in Table 1. BEP chart for *proactive* firm is shown in Figure 5.

On the other hand, *passive* firm does not do anything in recession period to lower fixed cost or reduce fixed pay in pay structure and continue to employ sales persons on a high pay level of erstwhile growth period that is fixed salary of $80,000. Hence, it results in higher operating leverage of 4.06 and higher decrease in before-tax profits for the firm. Also, BEP of passive firm does not decrease and remain unchanged (Table 1). BEP chart for *passive* firm is shown in Figure 6.

Limitations of 100 percent variable pay

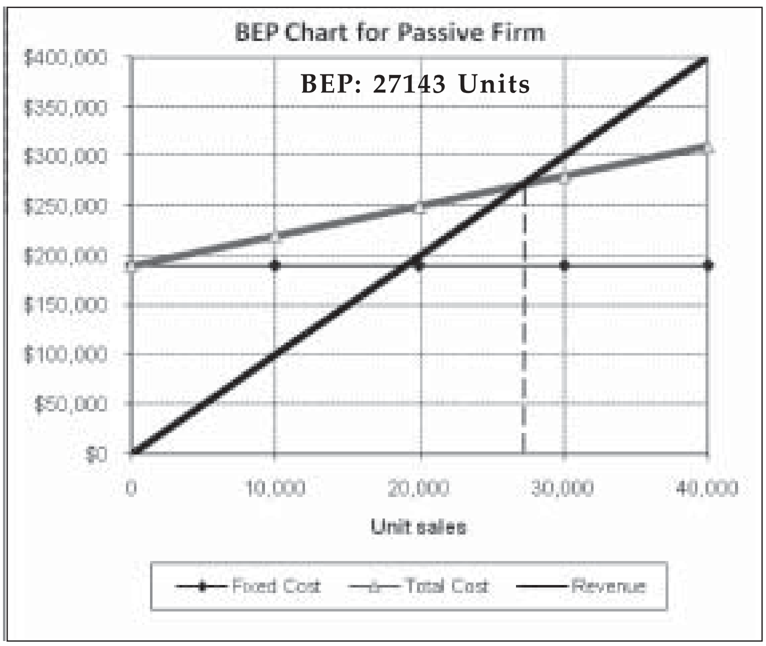
However, shifting to 100 percent variable pay may not be suitable for the organization. The losses or disadvantages associated with solely emphasizing the variable component of pay are listed below:

Figure 5: BEP Chart for Proactive Firm



(Source: Chart developed by author)

Figure 6: BEP Chart for Passive Firm



(Source: Chart developed by author)

1. As the variable proportion of total compensation increases, many employees may demand higher levels of pay because of the extra risks they are taking. Employees in the lower-income brackets are less willing to subject their pay to a variable component (Caroli and Garcia-Penalosa, 2002).

2. Firms emphasizing the variable pay component in certain geographical areas where market demand is weak may have difficulty in attracting and retaining sale employees for those areas, and it ultimately triggers an exodus of sales employees who do not desire a variable element in their compensation package.

3. Sales employees may not be willing to accept a variable pay package when it is implemented at the group level rather than the individual level. In other words, sales employees do not mind variable pay schemes if they are ultimately in control. Therefore, group incentive–pay plans may produce some element of dissatisfaction, which could eventually translate into lower efficiency (Burke and Hsieh, 2006).

4. Variable pay plans tend not to be as attractive to those individuals who are older, risk averse, or who generally lack the confidence to scale up their performance to be able to earn more through variable pay schemes. Thus, in the case of firms that shift to some form of variable pay, employees will likely leave their jobs, creating in turn sizeable turnover costs. Indeed, employee turnover costs have been cited by various authors as fairly prohibitive (Simons and Hinkin, 2001).

In this situation, it is necessary to identify optimal ratio of fixed and variable pay for the organization. According to Madhani (2009), the optimal ratio of fixed pay and variable pay should occur where the EVA (economy value added) of the firm is maximized. EVA is described as the gauge that suitably accounts for all of the complex trade-offs involved in creating value and determining the right measure to use for setting goals and evaluating performance. Balkin and Mejia (1990) also addressed the importance of combination of variable pay and fixed pay and discussed the importance of matching of compensation strategy with organizational strategy. If compensation strategy works well with organizational strategy then organization will have better sales performance. This will also build competitive advantages for the firm as described below:

1. Compensation strategy will attract sales people, retain existing employees, control cost, stimulate, and motivate employees.

2. The compensation strategy that matches with corporate strategy and HR strategy will be difficult for competitors to imitate.

Realigning Fixed and Variable Pay in Compensation Structure: Indian Scenario

In developed countries, cost of man power is treated as variable cost hence it helps organization to become flexible, nimble, responsive and ultimately competitive during tough time of business cycle such as recession. In Indian scenario, cost of employee is still considered as fixed cost during span of employment; however, this trend is changing very fast. With increasing competition, globalization, and changes in the business environment, firms need to be more proactive, responsive, and dynamic in their compensation strategy. Indian firms across the sectors, is either planning to introduce the variable pay or raising its proportion in the pay structure. The downturn of business cycle has forced many firms to increase salaries based on the performance of employees, and performance of firm i.e. revenue increase and profits.

According to hiring major 'Ma Foi management consultants,' the variable pay component in India is likely to go up to 25-30 percent on an average from 10-15 percent. The ratio of fixed to variable pay in compensation structure, depends on the level of the employee in an organization, the responsibility attached to the job and the role an employee plays. The new economy sectors like IT, banking, insurance and back-office jobs where employees engaged in sales activities, usually have a larger variable pay than the employees in execution roles. After the recession, the traditional or old economy sectors like manufacturing and oil and gas too have started changing their pay structure from the earlier 100 percent fixed format to mix of fixed and variable pay. Hewitt Associates, conducted '14th annual Salary Increase Survey' in March 2010 covering 465 Indian firms across 20 primary industries and 27 sub-industries. According to the survey variable pay as part of total compensation continues to grow with executive getting 24.8 percent and lowest rung officer cadre getting 11.3 percent of their salary in variable compensation.

Research Implications and Analysis

A good pay structure can be a powerful tool to drive salesforce direction and motivation. The right pay structure attracts and keeps salesforce with best skills, capabilities, and expertise that sales organization needed. Operating leverage is a key organizational variable affecting business performance during different stages of the business cycle. Proactive organization decreases operating leverage when a business cycle is just entering in recession, hence, the possibility of its negative impact is not substantial. During weak economic times, if the proportion of variable pay component in employee pay structure, is increased, it will help the organization in cutting overall employment costs and operating leverage as it is related to realized sales. With variable pay, organizations will be able to reward sales people based on their performance and market dynamics, and not on the years of experience that they have with organization.

A firm's ability to weather business cycles stems from effective utilization of an appropriate level of leverage though realigning fixed and variable costs. These accrued cost savings are redirected to keep the organization afloat until business conditions turn around. Reducing employee costs avoids the situation of large-scale retrenchment by the organization. Low operating leverage results in low variability of profit during periods of lower sales such as recession. With low operating leverage, any unforeseen negative variation in sales revenue will result into lower downward variation in profitability. Realigning cost in terms of appropriate balance of fixed and variable pay, reduces operating leverage and hence mitigates negative impact of business cycle stages such as recession on the organizations.

Keywords: Compensation Management, Fixed pay, Variable Pay, Sales Organization, Business Cycle.

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Women Empowerment

ICT Enterprises

Chandrasekar K.S. and Siva Prakash C.S.

Abstract

Kudumbashree poverty eradication project in Kerala has successfully created a state-wide series of poor women cooperative microenterprises through neighbourhood group development, wholly governed and operated by women belonging to the list of Below Poverty Line. By anticipating the importance of Information, Communication and Technology, it has taken steps for the creation of ICT-based micro enterprise units there by providing jobs for more than three thousand poor women and empowering them. This article discusses the socio economic background of the women working in ICT enterprises, women empowerment, evaluation of sustainability and success of women ICT based enterprises in Kerala.

Kudumbashree is an innovative woman based participatory programme launched by the Government of Kerala for the eradication of poverty through concerted community action. Kerala, which is more advanced in terms of social indicators like health, education etc has a low female work participation rate (22.9 percent in 2000) resulting in a high level of chronic unemployment among women. A recent study on gender parity in Kerala reveals that women in the secondary and higher secondary education segment are recording the highest incidence of educated female unemployment (Mridul and Praveena, 2005). The crucial determinants of demand and absorption of female labour, range of occupations open to women in the regional context and the role of technology in broadening the range etc need to be studied in greater detail to articulate policy interventions to revolutionize the high incidence of educated female unemployment and their low labour participation rate in Kerala. In this context, the initiative undertaken by Kudumba-

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shree is a major initiative to broaden the range of choice of activity for women, deserves special attention.Women empowerment initiatives, microfinance operations, micro enterprise promotion and community action constitutes the core activities of Kudumbashree carried out through organizations of women below the poverty line. These enterprises are all owned, managed and operated by women from below poverty line families. One important point is that these enterprises do not underpin much of a base line education and are more suited to women with lower levels of education. In contrast the enterprises sponsored by women in ICT sector unlike in the traditional sectors, is an innovative attempt which reinforces base line education and builds on it through training and which is aimed at women with higher levels of education. More importantly this opens up an avenue for poor women to participate in the gains from technology development. The women ICT based enterprise could be evaluated by multidisciplinary approaches (Harriss 2002), it includes gender-based perspective that focused on transformative/ developmental streams within gender studies (Reeves and Baden 2000), Enterprise-based perspective that draws from business studies and focuses particularly on the relationship between key enterprise success factors and financial/business outcomes (e.g. Perren 1999) and last livelihoods-based perspective that draws from development studies. It focuses particularly on the sustainable livelihoods framework, including access to assets and livelihood strategies (DFID 1999).

Objective of the Study

1. To study the socio- economic background of women working in women ICT based enterprise in Kerala.

2. To analyze how women ICT units supporting women empowerment.

3. To critically evaluate sustainability issues related with women ICT enterprises.

4. To critically analyze various benefits women ICT unit's members availing.

Methodology

In Kerala there are 228 Kudumbashree ICT enterprises spread across 14 districts in Kerala. Based on the activities these units can be classified in three categories as Data processing units, IT @ School, and Hardware assembling units 9 (see Table -1). The data processing units and hardware assembling units were only considered for study. A sample of 50 percent of the total data processing units (36 out of 72) were selected for study. The study was conducted through a systematic survey using a structured questionnaire covering ICT enterprises, ICT unit members and the agency. A stratified simple random sampling survey was carried for selecting sample for survey by

Table - 1

Units	Number of Units	Location		Average No. of Core Group Members (Per Unit)	Average No. of Supporting Staffs
		Urban	Rural		
IT@School Units	151	72	79	6	
Data Entry Units	72	42	30	10	3,200
Hardware Assembly Units	5	4	1	6	15

considering number of units in each district in Kerala. The one sample binomial test "to test the proportion of agreement" was used to test both hypotheses.

Socio-Economic Background of Women Working In ICT Based Enterprises

The socio-economic background analysis of the women working in ICT based enterprises shows that both married and unmarried women were members of IT Kudumbashree units. 65 percent of the participants fell in the age group 22 to 34. The study indicates that 87 percent were post SSLC and almost equal distribution of around 40 percent to 38 percent was found as Plus 2 / ITI / Degree holder, and nine percent were Post Graduates. Basic literacy was an important enabling factor for women to become beneficiaries of the ICT revolution quite in contrast to many other states where female literacy is low. It is equally interesting to note that 74 percent of the women were married women. The survey revealed that nearly 91 percent of the families held land and the average land holding size for the family was six cents. It was also seen that 94 percent lived in houses owned by them (14 percent had houses in their own name). It could also be a factor, which pushes one to the job market reflecting the absence of alternate income or income base for starting own enterprises. In the survey 85 percent women agreed that they experienced financial difficulty before joining the ICT unit. Location specific factors of the units were also conducive factors. These can be considered as major push factors for women to participate in Kudumbashree. By introducing the poor women to the ICT sector the new experiment seems to have addressed both the social and economic digital divide.

Women Empowerment Analysis

Factors considered for ICT Women empowerment analysis are: support from the family, change in status in the family following employment in the unit, contribution to family income, decision making power and power to spend money.

In the survey 92 percent members reported that they got family support to take-up employment, 73 percent stated following to their employment their position in the family, had improved and 90 percent of the women reported that their contribution to the family income had increased. 76 percent reported that their role in decision-making in the family had increased. In the case of the spending of income nearly 50 percent said that they themselves decide, 37 percent said that both husband and wife together took decisions and 13 percent of them said the husband alone decided. As for unmarried women, 65 percent took decisions on their own, while for 35 percent, parents / elders decided on the spending of their income.

Sustainability

In the survey 68 percent of ICT units, said that they could continue even without the support of Kudumbashree through effective marketing and diversifying work by acquiring better skills. Regarding training support, nearly 69 percent of the units wanted up-gradation of skills both in Hardware and Software. Advanced Hardware training was required to manage maintenance of modern desktops and servers and also they required further training in advanced networking. In the case of Software, it was also expressed that training was required to diversify into other job works like accounting software, Photoshop, Corel software's and other higher levels of work. The group members always aspired to acquire knowledge and skills in new and higher level of technologies and find new opportunities in future. In the case of future prospects 73 percent units expressed hope that the demand for their services would continue for some more years to come. 78 percent of respondents reviled that their future plan was to continue to work in the unit, develop their skills and find out more work.

Success Factors Related with Women ICT Enterprises

The major success factors, considered for the study and ranking are given in the Table-2. The women ICT enterprises, ranked agency (Kudumbashree) support and

Table - 2

No.	Factors	Sample	Yes	No	%	Rank
1	Unity and coordination of the members	36(100)	26	10	72.2	2
2	Collective decision-making.	36(100)	19	17	52.8	5
3	Highly skilled and Technically qualified work force	36(100)	24	12	66.7	3
4	Strong attachment and pleasant relationship with customer	36(100)	17	19	47.2	7
5	Determination to run own enterprise, driven by ambition and pressuring family situations.	36(100)	16	20	44.4	6
6	Support of the government agency	36(100)	31	5	86.1	1
7	Ability to provide employment to a wider group of poor women	36(100)	23	13	63.9	4
8	Favourable government policy towards outsourcing	36(100)	12	24	33.3	8

unity and coordination among group members, were rated as the two important factors.

Main Benefits Enjoyed by Women ICT Based Enterprises

1. Monthly salary for women,
2. Opportunities for women to improve their computer skills during their work,
3. Interactions, networking, and enhancement of personal freedom and esteem,
4. Economic and social support to extended family,
5. Independence and freedom of movement due to confidence of family in employees,
6. Development of communication skills and self-confidence through varied interaction, and
7. Improved knowledge in the computing field.

Hypotheses Testing

Hypothesis: 1

H_0: The women ICT enterprises are experiencing no difficulty in obtaining adequate input/resources.

H_1: The women ICT enterprises are experiencing difficulty in obtaining adequate input/resources.

The results of binomial test to test the proportion of agreement on different parameters is given in Table-4. From the table it can be observed that 89 percent agreed with the statement "availability of technically competent candidates for the requirement of ICT enterprise is adequate." The binomial test gives Z-value 7.48 which is significant at five percent level of significance. It reveals the availability of technically competent candidates is adequate. 81 percent opined that "technical training obtained from the agency is adequate" which is significant at five percent level of significance. Even though 61 percent agreed with "training obtained from the agency in management / entrepreneurship skills is adequate,' the binomial test shows which is not significantly above 50 percent at five percent level of significance. Only 47 percent told that "support to obtain ICT hardware and software for compete in the market is adequate." 72 percent of the ICT enterprises facing "difficulty to get financial assistance for recurring / working capital for running business" which is a significant proportion at five percent level of significance. 72 percent facing "difficulty to get information about customer." So, the analysis of

Table - 3

Parameters	Opinion					Total
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Availability of technically competent candidates for the requirement of ICT enterprise is adequate.			4(11.1)	24(66.7)	8(22.2)	36(100.0)
Technical Training obtained from the agency is adequate		4(11.1)	3(8.3)	24(66.7)	5(13.9)	36(100.0)
Training obtained from the agency in Management/entrepreneurship skills is adequate		6(16.7)	8(22.2)	20(55.6)	2(5.6)	36(100.0)
Support to obtain ICT hardware and software's for compete in he market is adequate	4(11.1)	9(25.0)	6(16.7)	16(44.4)	1(2.8)	36(100.0)
It is difficult to get financial assistance for recurring /working capital for running business?		2(5.6)	8(22.2)	10(27.8)	16(44.4)	36(100.0)
It is difficult to get information about customer	3(8.3)	2(5.6)	5(13.9)	26(72.2)		36(100.0)

Table - 4

Binomial Test of (To test the proportion of agreement; H_0: p =0.5, H_1: p>0.5)

Parameters	N	Proportion of Agreement (p)	Z-value
Availability of technically competent candidates for the requirement of ICT enterprise is adequate.	36	0.89	7.48*
Technical Training obtained from the agency is adequate	36	0.81	4.74*
Training obtained from the agency in Management/ entrepreneurship skills is adequate	36	0.61	1.35
Support to obtain ICT hardware and software's for compete in the market is adequate	36	0.47	-0.36
It is difficult to get financial assistance for recurring / working capital for running business?	36	0.72	2.94*
It is difficult to get information about customer	36	0.72	2.94*

* Agreement is significant at 5% level of significance

Table - 5

Parameters	Opinion					Total
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
The enterprise will be Financially sustainable in terms of to sufficient capital investment ,recurrent funds and short-term credit to manage cash	2(5.6)	20(55.6)	5(13.9)	9(25.0)		36(100.0)
The enterprise could sustain workforce skills and build managerial capacity; as well as create and sustain a motivational, rewarding and satisfying work environment		3(8.3)	4(11.1)	24(66.7)	5(13.9)	36(100.0)
The enterprise could able to continually update technology and associated skills to be able to respond to changing customer needs.	1(2.8)	14(38.9)	16(44.4)	5(13.9)		36(100.0)
The enterprise could go for diversification of products and services offered and by attracting a greater number of customers.	1(2.8)	6(16.7)	23(63.9)	6(16.7)		36(100.0)
The enterprise could get consistent market and customer support for service	4(11.1)	10(27.8)	7(19.4)	15(41.7)		36(100.0)
The enterprise would get sustainable support from kudumbasree			9(25.0)	21(58.3)	6(16.7)	36(100.0)
There will be a sustainable support and help from the government	2(2.8)	13(36.1)	10(27.8)	11(30.6)		36(100.0)

different parameters of the availability of input resources to run ICT enterprises reveals that they face difficulty to get input resources in general. But it is to be noted that technically competent candidates and technical training are adequate to run ICT enterprises in the state. Thus the hypothesis: "Women ICT enterprises are experiencing difficulty in obtaining adequate input recourses" is to be accepted.

Hypothesis - 2

H_0: There exists a sustainable future for women ICT based enterprises in Kerala under the present circumstances.

H_1: There exists no sustainable future for women ICT based enterprises in Kerala under the present circumstances.

The results of binomial test to test the proportion of agreement on different parameters is given in Table-6. From the table it can be observed that 25 percent agreed with the first statement "The enterprise will be financially sustainable in terms of to sufficient capital investment, recurrent funds and short-term credit to manage cash," which is significantly low at five percent level of significance. 81 percent agreed on second statement "The enterprise could sustain workforce skills and build managerial capacity; as well as create and sustain a motivational, rewarding and satisfying work environment "its Z-value is 4.74 and significant five percent level of significance. Only 14 percent agreed on the statement "The enterprise would be able to continually update technology and associated skills to be able to respond to changing customer needs" and the binomial test shows which is significantly low at five percent level of significance. The statement: "The enterprise could go for diversification of products and services offered and by attracting a greater number of customers" is accepted by 17 percent only. Even though 42 percent agreed on the statement "The enterprise could get consistent market and customer support for service" the binomial test shows which is not differed significantly from 50 percent at five percent level of significance. 75 percent agreed on the statement "The enterprise would get sustainable support from Kudumbashree" which got Z –value, 3.46 and the agreement is significant at five percent level of significance. 31 percent agreed on the statement "There will be a sustainable support and help from the government" and the disagreement on the statement is significant at five percent level of significance. So, the analysis of different parameters of the sustainability of women ICT based enterprises in Kerala reveals that it is difficult to get a sustainable future for women ICT based enterprises in Kerala. Thus the alternate hypothesis "There exists no sustainable future for women ICT based enterprises in Kerala under the present circumstances" is to be accepted.

Table - 6

Binomial Test (To test the Proportion of Agreement; H_0: p =0.5, H_1: p>0.5)

Parameters	N	Proportion of Agreement (p)	Z-value
The enterprise will be Financially sustainable in terms of to sufficient capital investment ,recurrent funds and short-term credit to manage cash	36	0.25	-3.46 #
The enterprise could sustain workforce skills and build managerial capacity; as well as create and sustain a motivational, rewarding and satisfying work environment	36	0.81	4.74 *
The enterprise could able to continually update technology and associated skills to be able to respond to changing customer needs.	36	0.14	-6.23 #
The enterprise could go for diversification of products and services offered and by attracting a greater number of customers.	36	0.17	-5.27 #
The enterprise could get consistent market and customer support for service	36	0.42	-0.97
The enterprise would get sustainable support from kudumbasree	36	0.75	3.46 *
There will be a sustainable support and help from the government	36	0.31	-2.46 #

Significant disagreement with the statements at 5% level of significance

* Significant agreement with the statements at 5% level of significance

Hypothesis - 3

H_0: There does not exist a significant level of demand from ICT enterprises for external support .

H_1: There exists significant level of demand from ICT enterprises for external support.

The results of binomial test to test the proportion of agreement on different parameters of the demand of external support is given in Table-8. Form the table it is clear that 50 percent agreed with the first statement, "Support for financial assistance/support and fifth statement "Support for hardware/software requirement" but z-value is "0," so the firms divide in their opinion about this statement. To the statement "Support to Technical and performance improvement training" 78 percent agreed and this proportion is significant at five percent level of significance. Only 25 percent agreed on third statement "Support to Management/entrepreneurial skill training" and the test shows the agreement on this statement is significantly low at five percent level of significance. But 89 percent agreed on the fourth statement "Support for Marketing the service and finding new customers" and which is significant at five percent level of significance. In the case of sixth statement "Support for government and private intuitional linkage" 56 percent agreed, but the binomial test shows which is not significantly above 50 percent at five percent level of significance. In the case of last statement "support to Diversifying the business for growth" even though 61 percent agreed the binomial test shows which is not significantly above 50 percent at five percent level of significance.

The analysis shows that there exists a significant requirement for technical and performance improvement training and for marketing. Even though they are getting sufficient training for management/ entrepreneurial skill development, about 50 percent of the ICT units need financial support, Support for hardware/software requirement, Government and private institutional linkage, and diversifying the business for growth. In general, it shows that there exists a significant level of demand from

Table - 7

Parameters	Opinion					Total
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	
Financial assistance /support	1(2.8)	4(11.1)	13(36.1)	17(47.2)	1(2.8)	36(100.0)
Technical and performance improvement training		1(2.8)	7(19.4)	16(44.4)	12(33.3)	36(100.0)
Management /entrepreneurial skill training		7(19.4)	20(55.6)	9(25.0)		36(100.0)
Marketing the service and finding new customers		1(2.8)	3(8.3)	14(38.9)	18(50.0)	36(100.0)
Support for hardware/software requirement		2(5.6)	16(44.4)	18(50.0)		36(100.0)
Government and private intuitional linkage			16(44.4)	16(44.4)	4(11.1)	36(100.0)
Diversifying the business for growth			14(38.9)	14(38.9)	8(22.2)	36(100.0)

Table - 8

Binomial Test (To test the Proportion of Agreement; H_0: p =0.5, H_1: p>0.5)

Parameters	N	Proportion of agreement (p)	Z-value
Financial assistance /support (P_1)	36	0.50	0
Technical and performance improvement training (P_2)	36	0.78	4.06 *
Management /entrepreneurial skill training (P_3)	36	0.25	-3.46 #
Marketing the service and finding new customers (P_4)	36	0.89	7.48 *
Support for hardware/software requirement (P_5)	36	0.50	0
Government and private intuitional linkage (P_6)	36	0.56	0.73
Diversifying the business for growth (P_7)	36	0.61	1.35

Significant disagreement with the statements at 5% level of significance

* Significant agreement with the statements at 5% level of significance

ICT enterprises for external support. Thus the hypothesis H_1 is accepted.

Conclusion

The above study clearly indicates that Kudumbashree women ICT initiative has got enormous prospective as a wonderful tool for empowering and uplifting the poor women class and also social and economic obstructions could be effectively triumph over through this innovative programme. The study clearly highlights that with the basic literacy rate of the Kerala state; stimulate ICT as tool of empowerment of poor women is viable. But recently the units are facing lack of support from the agencies for input/ recourse and there exists a greater demand of external support for sustainability. It is only possible when the supporting agency and government positively apprise and extend the support.

Key Words: *Kudumbashree, Below Poverty Line, ICT-Based Micro Enterprise, Women Empowerment, Poverty Eradication.*

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Investors' Behaviour: Mutual Fund

Anoop Pandey

Abstract

The concept of MF was Indianized only in the latter part of the twentieth century, in the year 1964, with its roots embedded into Unit Trust of India (UTI). It's a hard fact that an investment in mutual fund is always risky. Risks can be Investor Psychology Risks, Prediction Risks, Choice Risks, and Cost Risks. The main objective of this research paper is to analyze the pattern of investor's behaviour regarding periodic and non-periodic investment and, to analyze the factors which regulate their decision to investments in Mutual Funds?

Mutual fund is a professionally managed type of collective investment scheme that pools the savings of number of investors who share a common financial goal. This pool of money is invested in accordance with a stated objective. The joint ownership of the fund is thus "Mutual," i.e. the fund belongs to all investors. The money thus collected is then invested/ traded by the fund manager in capital market instruments such as shares, debentures and other securities. The income earned through these investments and the capital appreciations realized is shared by its unit holders in proportion to the number of units owned by them. *Thus, a Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.* A Mutual Fund is an investment tool that allows small investors access to a well-diversified portfolio of equities, bonds and other securities. Each shareholder participates in the gain or loss of the fund. Units are issued and can be redeemed as needed. The funds Net Asset value (NAV) is determined each day. Investors of mutual funds are known as unit holders.

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As rightly said by Famous-Entrepreneurs, Todd McFarlane "*Do Not Put All Your Eggs* into *One Basket.*" Diversification reduces the risk because all stocks may not move in the same direction in the same proportion at the same time. Therefore, through Mutual Funds, Investments in securities are spread across a wide cross-section of industries and sectors and, thus, the risk is reduced. Mutual fund issues units to the investors in accordance with quantum of money invested by them.

Concept of Mutual Fund

↓

Many investors with common financial objectives pour their money

↓

Investors, on a proportionate basis, get mutual fund units for the sum contributed to the pool

↓

The money collected from investors is invested into shares, debentures and other securities by the fund manager

↓

The fund manager realizes gains or losses, and collects dividend or interest income

↓

Any capital gains or losses from such investments are passed on to the investors in proportion of the number of units held by them

Advantages of Mutual Fund Comprises:

Portfolio Diversification,

Professional management,

Reduction / Diversification of Risk/Liquidity,

Flexibility and Convenience,

Reduction in Transaction cost,

Safety of regulated environment,

Choice of schemes, and

Transparency.

Disadvantages of Mutual Fund consist of:

No control over Cost in the Hands of an Investor,

No tailor-made Portfolios,

Managing a Portfolio Funds, and

Difficulty in selecting a Suitable Fund Scheme.

Structure of Mutual Funds in India

The structure is required to be followed by mutual funds in India as per SEBI Regulations, 1996. It is constituted in the form of a Public Trust created under the Indian Trust Act, 1882. The Trustees hold the unit holders' money in a fiduciary capacity i.e. the money belongs to the unit holders and is entrusted to the fund for the purpose of investments. The Trustees do not manage the portfolio of securities directly, for this specialist function they appoint the Asset Management Company. The Trust is executed through a document called a trust deed, executed by the fund sponsor in favour of the trustees. The Trust deed is required to be stamped as registered under the provisions of the Indian Registration Act and also registered with SEBI. The role of the Asset Management Company is to act as the investment manager of the Trust and must have a net worth of at least ₹10 crores.

Major Mutual Fund Companies in India

Sl.No.	Name of the Mutual Fund Companies
1	ABN AMRO Mutual Fund
2	Birla Sun Life Mutual Fund
3	Bank of Baroda Mutual Fund
4	HDFC Mutual Fund
5	HSBC Mutual Fund
6	ING Vysya Mutual Fund
7	Prudential ICICI Mutual Fund
8	Sahara Mutual Fund
9	State Bank of India Mutual Fund
10	TATA Mutual Fund
11	Kotak Mahindra Mutual Fund
12	UTI Mutual Fund
13	Reliance Mutual Fund
14	Standard Chartered Mutual Fund
15	Franklin Templeton India Mutual Fund
16	Morgan Stanley Mutual Fund India
17	Escorts Mutual Fund
18	Alliance Capital Mutual Fund
19	Benchmark Mutual Fund
20	Canbank Mutual Fund
21	Chola Mutual Fund
22	LIC Mutual Fund
23	GIC Mutual Fund

Comparison of Investment Products:

Investor tends to constantly compare one form of investment with another. Investors certainly look for the best returns for different option. However, to determine which option is better, the comparison should be made in terms of other benefits that the investor ought to look for in any investment.

	Investment Objective	Returns	Risk Tolerance	Investment Horizon	Liquidity
Equity	Capital appreciation	High	High	Long term	High
FI Bonds	Income	Moderate	Low	Med-long	Moderate
Corporate Debentures	Income	Moderate	High	Med	Low
Corporate FDs	Income	Moderate	High	Med	Low
Bank Deposits	Income	Low	Generally low	Flexible	High
PPF	Income	Moderate	Low	Long term	Moderate
Life Insurance	Risk cover	Low	Low	Long term	Low
Gold	Inflation hedge	Moderate	Low	Long term	Moderate
Real Estate	Inflation hedge	High	Low	Long term	Low
Mutual Funds	Capital growth & Income	High	High	Flexible	High

Risk Factors

- Mutual Funds and Securities investment are subject to market risks and there can be assurance or guarantee that the scheme objectives will be achieved.

- As with any investment in securities, the Net Asset Value of Unit issued under the Scheme may go up or down depending on the various factors and forces affecting the capital markets.

- Past performance of the Sponsors and their affiliates / AMC / Mutual Fund and its scheme do not indicate the future performance of the schemes of the Mutual Fund.

- The Sponsors are not responsible or liable for any loss or shortfall resulting from the operations of the scheme beyond the contribution of ₹1 lakh each made by them towards the corpus of the Mutual Fund.

As per SEBI circular Ref. SEBI/IMD/CIR No. 10/22701/03 dated December 12, 2003 read with circular Ref SEBI/IMD/CIR NO. 1/42529/05 dated June 14, 2005, it is specified inter alias that each portfolio under a scheme should have a minimum of 20 investors and no single investor should account for more than 25 of the corpus of such portfolio.

Risk Factors Involved in Mutual Fund

A Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a relatively low cost.

In finance theory, investment risk is considered a precise, abstract and purely technical statistical concept. This risk concept, however, does not reflect private investors' understanding of risk; they have a more intuitive, less quantitative, rather emotionally driven risk perception. Empirical studies that deal with investors' risk perceptions detect four different dimensions of perceived risk:

– **Downside risk:** the perceived risk of suffering financial losses due to negative deviations of returns, starting from an individual reference point

– **Upside risk:** the perceived chance of realising higher-than-average returns, starting from an individual reference point

Mutual Fund Schemes

Mutual Fund Type	Objective	Risk	Investment Portfolio	Who should invest	Investment Horizon
Money market	Liquidity + Moderate income + Reservation of capital	Negligible	Treasury bills, certificate of deposits, commercial papers	Those who park their funds in current accounts or short term bank deposits	2 days – 3 weeks
Short-term funds(floating-short term)	Liquidity + Moderate income	Little interest rate	Treasury bills, call money, CDs, commercial papers	Those with surplus short funds	3 weeks- 3 months
Bond funds (floating-short term)	Regular income	Credit risk & interest rate risk	Government securities, Corporate bonds, Predominantly debentures	Salaried & conservative investors	More than 9- 12 months
Gilt funds	Security & income	interest rate risk	Government securities	Salaried & conservative investors	12 months & more
Equity funds	Long term capital appreciation	High risk	Stocks	Aggressive investors with long term outlook	3 years plus
Index funds	To generate returns that are commensurate with returns of respective indices	NAV varies with index performance	Portfolio indices like BSE, NIFTY etc	Aggressive investors	3 years plus
Balanced funds	Growth & regular income	Capital market risk & interest risk	Balanced ratio of equity & debt funds to ensure higher returns at lower risk	Moderate & aggressive	2 years plus

— **Volatility:** the perceived fluctuations of returns over time

— **Ambiguity:** a subjective feeling of uncertainty due to lack of information and lack of competence.

Consumers wishing to avoid risk do not buy mutual funds, since risk is inherent in all stock market products. Consumers may however try to minimize risks.

Consumers take a big risk when they invest money in the stock market as opposed to traditional bank deposits or bonds. Consequently, they are willing to take that risk to get a higher return than they would get from traditional savings.

Since no prior Consumer Behaviour studies with a holistic focus on the mutual fund market were available, all Likert-scales had to be developed for this study. Most consumers buy mutual funds as a means to some other goal (retirement, house, vacation, etc.). Thus, they do not consume mutual funds in the same sense that other products and services are consumed.

So, the problem engaged with this is, investors are biased towards investing in saving and other investment options rather than in mutual funds.

The main reason of its poor growth is that the mutual fund industry in India is new. Large sections of Indian investors are yet to be in acquaintance with the concept. Hence, it is the prime responsibility of all mutual fund companies, to market the product correctly abreast of selling.

So, I conducted a survey to view the perception of the non-investors in investing in the mutual funds and determine the obstacles viewed in investing in the mutual funds.

Formulation of Hypothesis

1. **Hypothesis 1**:- That the majority of the population goes for periodic investment.

2. **Hypothesis 2**:- How prominent are the factors affecting the investment in Mutual Funds.

Objectives of the Research Paper

1. To analyze the pattern of investors behaviour regarding periodic and non-periodic investment.

2. To analyze the factors which regulate their decision to investments in Mutual Funds?

Data Sources

Research is totally based on primary data. Primary data has been collected through Questionnaire and by interacting with various people. The secondary data has been collected from Mutual Fund Hand Books (AMFI) and websites.

Personal interviews and informal discussions were held when I was doing market research with new customers to ascertain the awareness and existing consumers' satisfaction level. Further, applying simple statistical techniques has processed the data collected.

Sampling

The sample was selected randomly, irrespective of them being investors or not or availing the services or not. The data has been analyzed by using mathematical/Statistical tool.

The sample size of my project is limited to 50 people only.

Probability sampling requires complete knowledge about all sampling units in the universe. Due to time constraint, non-probability sampling was chosen for the study, directly approaching respondents (businessmen, small shopkeepers, physical commodities traders and service class people).

Limitations of the Research Paper

Limitations of the response paper are:

Some of the persons were not so responsive. Possibility of error in data collection because many of investors may have not given actual answers of my questionnaire. Sample size is limited to 50 people out of these only few had invested in Mutual Fund. The sample size may not adequately represent the whole market. Some respondents were reluctant to divulge personal information which can affect the validity of all responses. The research is confined to a certain part of Delhi NCR.

Benefits of Mutual Funds:

- **Professional Management**
  The basic advantage of funds is that, they are professionally managed, by well qualified professional. Investors purchase funds because they do not have the time or the expertise to manage their own portfolio.

- **Diversification**

  Purchasing units in a mutual fund instead of buying individual stocks or bonds, the investors risk is spread out and minimized up to certain extent. The idea behind diversification is to invest in a large number of assets so that a loss in any particular investment is minimized by gains in others.

- **Economies of Scale**

  Mutual fund buy and sell large amounts of securities at a time, thus help to reducing transaction costs, and help to bring down the average cost of the unit for their investors.

- **Liquidity**

  Just like an individual stock, mutual fund also allows investors to liquidate their holdings as and when they want.

- **Simplicity**

  Investments in mutual fund are considered to be easy, compared to other available instruments in the market, and the minimum investment is small.

- **Regulations**

  All the mutual funds are registered with SEBI and they function within the provisions of strict regulation designed to protect the interests of the investor.

Hypothesis 1:- That the majority of the population goes for periodic investment.

H0: Majority of people doesn't go for periodic investments.

Null hypothesis describes in a formal way some aspect of the statistical behaviour of a set of data and this description is treated as valid unless the actual behaviour of the data contradicts this assumption. So, in this case null hypothesis is taken that the majority of people do not go for periodic investment and contradictory to that alternative behaviour aspect of this hypothesis, is that the majority of population goes for periodic investment.

Using Z-test, we came to a result is: = -0.565

Level of significance: - á = 0.50

Critical value: - The critical value of Z at five percent level of significance for two tail test is $\pm$ 1.96

Decision: - The computed value of z here is -0.565 which is in between the critical value $\pm$1.96.

It falls in the acceptance region hence the null hypothesis is accepted and alternate hypothesis is rejected at five percent level of significance and it can be concluded that It falls in the acceptance region hence the null hypothesis is accepted and alternately the majority of the population go for periodic investment. It says that the people have a high potential to invest but they don't go for periodic investment due to high risk, high volatility market, lack of knowledge and expertise etc are the major reasons that affect investment decision of the investors.

Hypothesis 2:- The people not indulged in mutual funds have high saving potential.

H0:- The people not indulged in mutual funds having high saving potential.

Failing to reject H_0 says that there is no strong reason to change any decision or procedure predicated on its truth. So, in this hypothesis null hypothesis is strongly contradicted to alternative hypothesis that it questioned the saving potential of the investors and their interest in investing their money in mutual funds.

Using z-test, we get the result: = 0.282

Level of significance: - á = 0.05

Critical value: - the critical value of Z at five percent level of significance for two tail test is $\pm$ 1.96

Decision: - The compared value of z here is 0.282 which is in between the critical value $\pm$ 1.96

It falls in the acceptance region hence the null hypothesis is accepted and alternative hypothesis is rejected at five percent level of significance and it can be concluded that the people not indulged in mutual funds have high savings ratio. It shows that the investors have saving potential but they do not indulge in investing their money in Mutual Funds. It says that people do prefer in investing their money in some other ways such as securities, fixed deposits, saving accounts, etc. But very few go for investing in mutual funds.

Findings and Suggestions

Findings

1. The most vital problem spotted is of ignorance. Investors should be made aware of the benefits. Nobody will invest until and unless he is fully convinced. Investors should be made to realize that ignorance is no longer bliss and what they are losing while not investing.

2. Mutual funds offer a lot of benefit which no other single option could offer. But most of the people are not even aware of what actually a mutual fund is? They only see it as just another investment option. So the advisors should try to change their mindsets. The advisors should target for more and more young investors. Young investors as well as persons at the height of their career would like to go for advisors due to lack of expertise and time.

3. Mutual Fund Company needs to give the training of the Individual Financial Advisors about the Fund/ Scheme and its objective, because they are the main source to influence the investors.

4. Before making any investment Financial Advisors should first enquire about the risk tolerance of the investors/ customers, their need and time (how long they want to invest). By considering these three things they can take the customers into consideration.

5. Younger people aged fewer than 35 will be a key new customer group into the future, so making greater efforts with younger customers who show some interest in investing should pay off. Customers with graduate level education are easier to sell to and there is a large untapped market there. To succeed however, advisors must provide sound advice and high quality.

Systematic Investment Plan (SIP) is one the innovative products launched by Assets Management companies very recently in the industry. SIP is easy for monthly salaried person as it provides the facility of do the investment in EMI. Though most of the prospects and potential investors are not aware about the SIP. There is a large scope for the companies to tap the salaried persons.

Suggestions

International Brands are entering into Indian market so the current priority of Mutual fund companies to build Brand value, which will help them in the due course of time when the market will become stiff. A number of mutual funds schemes available in the Indian market are about 500 versus 8000 in U.S. So the emphasis should be on building brand at low cost. There are some of suggestions which can help mutual fund companies to give a better service to its existing customers and potential customers.

Today's generation knows 'What is mutual fund,' but they are not aware about the facility, the schemes, the tax rate policy, so by seeing these points, companies should invest highly in advertisement to create awareness of them, so that the demand of these industries increases.

Build a software containing cases of operation related queries, like a law firm where a reference can be taken to solve the problems on a daily basis.

This system will act as a library of the old complex cases and new cases can be solved on an ongoing basis.

Use of the software in determining the procedures required in complex procedures like cause of death, change of nominee, etc.

- Helpful if an operations team member is on leave.
- New information/ new cases can be updated by the operations team and helps them in solving all key issues.
- Training new staff, in case of new recruitment/ new banker/ new agents.

Cost of the software: Rs. 5000

Preparation time: 1 week

Support: Constant upgrading can be done by staff only.

Installing Customer Relationship Management Software

1. It will build trust amongst the company and the existing clientele of the Mutual fund companies.
2. It will increase the customer base for the companies.
3. The feel good factor — the feel of personal touch can be given by the mutual fund companies, by wishing the consumers on their birthdays and their anniversaries. As this step is not taken till now by any one of the mutual fund company will get a competitive advantage in this.

Informative and User Friendly Website

Updation and the company's website should be continuous, and there should be a detailed analysis about the investment process, because now a days we are seeing the new generation are investing their surplus in shares because they have idea about the ongoing process, similar step should be taken in case of mutual funds also. Increase the promotion for its SIP scheme and other plans, Flexible Dates, and no entry load, all these facilities are not available with any of the fund houses and this can help in tapping the people who are currently not investing in mutual funds, thereby creating new investors.

Keywords:

Mutual Fund, Investor, Investment, Risk Factors, Innovative Marketing Strategies

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Middle Level Managers:
Competency and Effectiveness

Murale V. and Preetha R.

Abstract

The objective of this study is to examine the relationship between managerial competency of middle level mangers and its influence on their role effectiveness. The study was conducted at a tyre manufacturing firm located in Kerala and the competencies of twenty middle level managers were evaluated by their peers. Pradip Khandawalla's scale for competency measurement was used to rate the competency level. The study helped to understand that it is desirable for a manager to have a set of behavioural and technical competencies to deliver his / her role effectively irrespective of his or her functional area.

In any work environment the managers use their competencies to perform a variety of behaviour and tasks that results in products and services or in other words output that is being catered to different stakeholders. The quality of the inputs in the form of behaviour and tasks has an influence on the people who receive them which results positive and negative outcomes of an organization. The sustainability of an organization depends on the effectiveness of their management team, their ability to foresee the future, leadership capabilities and the skill and knowledge of its workforce. This means that the success of an organization is primarily indebted to the competencies of their managers. The core idea of this paper is to carry out an empirical investigation on the relationship between managerial competencies and their role effectiveness.


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Boyatzis (1982) defined competency as “A capacity that exists in a person that leads to behaviour that meets the job demands within parameters of organizational environment, and that, in turn brings about desired results." Competency can be otherwise defined as behaviour (i.e. communication, leadership) rather than a skill or ability.

The competency management systems are extensively used for appraising, rewarding and promoting people in most of the organizations. However there are not many studies in the recent past which have highlighted the fact that the managerial competency can enhance managerial effectiveness and thus leads to a superior organizational performance.

The resource based view (Barney 2000) suggests that a firms competency and competencies arise out of its internal resources, (people, knowledge, skill), and the strategic advantage of a firm lies in the efficient utilization of its internal resources. Thus the managerial competencies arising out of the managerial talent pool of an organization has a very strong influence on its effectiveness.

Prior research has proved that the leader's role is crucial in setting the goals of an organization and ensuring its long term and sustainable execution. Although there are many possible ways in which leaders can drive innovation and change so as to have a sustainable growth in their organizations, the best Indian leaders used an unusually consistent – and logical – pattern is reflected in the driving change competency. Leaders must also nurture and grow their teams, supporting their team's success (Team Leadership). Finally, leaders must simultaneously empower their people and hold them accountable, fostering their development and their ability to take on greater responsibilities (Empowerment with Accountability). People, and particularly leaders, lie at the heart of economic growth. No strategy or policy can achieve the transformation of the Indian economy without the right people, the right technical know-how, and the right mindset and behaviour. The leader should act as facilitator of change in any organization by engaging his energy and empowering all the employees to work together toward the same end.

The following section throws light into the study conducted in the pioneering stages.

The Management concept in its nascent stage advocated that organizations comprise certain specialized functions such as of setting goals and to develop planning and control strategies for achieving them (Fayol 1916). These included the coordination of interdependent activities, design and management of the organizational architecture and taking measures for motivating the work force. It was later surmised that senior managers have several distinguishing roles of figurehead, leader, monitor, disseminator, disturbance handler, resource allocator, negotiator and of an entrepreneur (Mintzberg, 1973; Mintzberg, 2001). Some of the roles are pinned into almost all managerial positions and some others may be more specific to certain industry, function or level in the organization (Kickul and Gundry, 2001).

On a macro-perspective, a manager's job is broader than managing their subordinates as he has to operate in an environment constrained with organizations nature of business, the life cycle stage of organization its vision and mission authority and resources available and so forth is the complexity that lays in a manager's job. This demands a higher degree of navigational and communicational skills, flexibility, creativity, toughness, perseverance etc which leads to a question that which proves these traits and competencies as aids in superiority in the performance of managerial roles.

In the recent days organizations are more focusing on teams and workgroups which can reduce the workload of a manager by sharing some of the managerial tasks but both the success and failure of at the team depends on a manager of that team (Antonioni, 1994). Sir Alex Ferguson is a classical example of a manager who enacted as a consultant. Visionary coach and educator which in turn produced the most valued football club Manchester United of England. In a business scenario a manager as an inside consultant should be able to identify problems and as a visionary who leads the team in congruence with business plan and top management goals. In the role of a coach he trains and observes a team's performance, providing constructive feedback and rewarding them at times for their performance driven behaviours and which in turn nurture a team spirit. A good manager is a good educator who facilitates the discussion and implementation of lessons which can mould a strong team for the future.

Management's success relies upon the extent and quality of a managers contribution in achieving the goals of his unit and that of the organization as whole (A.Shirazi, S.Mortazavi 2009). Cockerill (1989) is of the view that this more apt to manager as an individual rather than their hierarchical authority within an organization. The performance of a manager depends on the competency that he possesses or that he develops. These are of cognitive (knowledge and skills affective (values, beliefs), behavioural (personality types) and motivational in nature. These competencies help him to demonstrate a set of behaviour in a particular situation (Ley, 2006; Boyatzis, 1982). Scholars like Finn (1993) argue attributes such as task-related knowledge and experience (input competencies), and personality characteristics (process competencies) can have an impact on a manager's effectiveness.

A study carried out by Srivastava (2003) on successful Indian Business transformational leaders helped in identifying those competencies in the form of useful motives, attitudes, and personality traits have been contributing for managerial success.

In his research McClelland's (1975) has proved that power motive and activity inhibition or self-control of managers are two significant success factors. But the other researchers such as Campbell (1970) were of the view that intelligence, verbal skills, good judgment, organizing skill, effective interpersonal relations, risk taking, hard work, pro-activity, confidence, straight-forwardness, dominance, low anxiety, good health, ambition, active participation, sense of autonomy in extra-curricular and community activities, etc., result in a higher degree of managerial effectiveness.

Boyatiz (1982) has defined a set of competencies and traits that distinguish the elite group of managers who are high performers from that of average and poor performers. Boyatiz figured out the competencies by extensive review of prior research and by application of behavioural event interviewing technique. The behavioural event interviewing involves the recollection of critical incidents by managers and the examination of these incidents to gather out the information on competencies displayed. In the initial phase of his study a number of competencies were identified but were later reduced to 19 competencies which are arranged into a group of five by carrying out factor analysis.

The first group, the action management cluster of competencies, consisted of pro-activity, diagnostic use of concepts, efficacy orientation, and a concern with making an impact on employees.

The second group was comprised of the leadership cluster, consisting of self-confidence, usage of oral presentations, logical thought, and conceptualization. The third cluster, labelled human resource management, consisted of the use of socialized power (broadly, team building capacity), positive regard (belief in the effectiveness of others), effective management of group processes (that is, ability to stimulate collaboration), and accurate self-assessment (objective view of oneself). The fourth cluster was direction of subordinates consisting of developing others, the use of unilateral power (giving commands), and spontaneity (ability to express oneself freely). Focus on others was the fifth cluster, and it consisted of self-control, objective perception, stamina and adaptability, and concern with close relationships/friendships.

Boyatiz (1982) also highlighted the prominence of expert knowledge that can complement a mangers success. A discriminant function analysis was done in comparison with ten of the competencies to check how correctly they grouped 467managers into various categories such as poor, average, and high performers. They were able to categorize 51 percent of the sample selected for the study into the right strata.

Kanungo and Misra (1992) in their paper presented the competencies that constitute managers resourcefulness. They classified them as specific such as of greeting all customers with a smile, and generic that is, skills that are useable with some customization matching wide range of task situations. The latter competency is an essential requirement in a non-routine task that managers typically perform.

It is a well known fact that companies change business models for their survival, to face competition and for attaining their organizational vision. In these situations the managers have to act as an innovator or that of a change agent and hence the may have to possess a number of competencies that may be associated with that of a change agent.

Kanter (1982) in her study of 165 middle level managers in which she considered 99 of them as innovators and change agents and this study underlines the fact innovators and change agents.

In a study of considered 99 of these as innovators and change agents. Her study suggests that effective innovators and change agents are comfortable with change, have foresight, mark opportunities well possess a clear sense of direction, and have resilience, that is, they do not easily get dejected. They are tactful but unrelenting and organize themselves thoroughly for meetings and presentations. They liberally include colleagues and subordinates in decision-making, and generously share rewards with their team members, and can motivate team members to perform at their best. They are also good at organizational politics and have a knack for identifying and cultivating powerful supporters. The above given literature bolsters the validity of our argument and in the following section presents the details of the study.

The Study

The studies which identify the competencies of successful managers are many in the realm of behavioural and competency research and it should be considered that Managerial performance can be broken down into a set of Key roles (Khandwalla, 2004) that can improve his or her performance.

The roles were identified from the study conducted by Khandawalla (2004) among senior executives on his study in which he had interviewed 25 managers on the role played by them in their respective organizations. By a careful review of literature and content analysis and by combining similar roles he streamlined it into twenty seven roles. These 27 roles can be broadly categorized into strategic operations-related, and leadership/'people management' roles (Khandwalla, 1995). These dimensions comprise strategic roles operation, related roles and leadership or people management roles.

The competencies and role effectiveness of the managers are measured using an instrument developed by Khandwalla (1988) for his studies on senior manager's competencies. The various dimensions considered for the study are contextual sensitivity-related competencies, innovation sponsoring capabilities, initiative managing competencies, resilience and problem solving capabilities, task accomplishment-related competencies, and interpersonal competencies.

The study was carried out at on an automobile wheel manufacturing plant at its Kerala units, Twenty Middle level managers are taken as a sample for the present study, and each manager was rated by three of his or her subordinates on the survey. The competencies and role are asked to be ranked by the managers in their order of the importance they assume for that particular role.

For this study we have set the following hypothesis.

- There exists a significant difference in the competency levels of leaders.
- There is a specific and positive correlation between competency traits of leaders and performance of the organization.

- The instrument for assessing the effectiveness was a six point item scale in a continuum which 1 denotes "participant does not play the role" and 6 denotes "participant plays the role extra-ordinarily well."

The competency was also measured on the trait possessed by the role incumbent. In which one denotes "the participant has the opposite of this trait" and six represent "definitely has this trait to a very great extent."

The managers ratings were tabulated using SPSS 13 software and the ratings of a particular manager was averaged to derive at the managers score on a assigned role or competency Tables 1 and 2 list the roles and the competencies and provide information on the average and standard deviation of each item. For convenience, Table 2 provides similar information of the role effectiveness. The hypothesis was tested using a one sample t test at 95 percentage confidence level. A correlation analysis was also carried out to prove the relationship between role effectiveness and managerial competencies.

Table - 1: Competencies

Sl.No.	Managerial Competencies	Average Score (Std. Deviation)	Rank
A	**Contextual Sensitivity Competencies**		
1	Can quickly identify the power structure of the organization/system and get to know what powerful people in it want or do not want	3.94(0.95)	1
2	Can 'smell trouble' before others do	4.03(.741)	12
3	Can quickly identify the 'do's and don'ts of the organization/system	4.16(0.69)	3
4	Good at keeping eyes and ears open to what is happening around him/her	4.135(0.706)	10
5	Keeps in touch with a wide variety of people and consciously develops a number of informative and influential contacts	4.152(0.638)	25
6	Has a knack for doing the right things at the right time in getting jobs done	4.08(0.749)	27
7	Good at roping in influential people in the organization to support his/her ideas	4.169(0.656)	18
	Average score	**4.1**	**13.7**
B	**Initiative Management Competencies**		
8	Likes new tasks and is quite at home in new settings and with new people	4.15(0.664)	39
9	Gets new projects going easily and quickly		32
10	Makes persuasive presentations for proposals for new projects/activities	4.12(0.687)	29
11	Gives credit liberally to people who have been helpful in getting project/activity going	3.980(0.77)	23

12	Great at spotting and seizing opportunities that are beneficial to the organization	4.00(0.742)	26
13	Builds an effective team for implementing new project/activity	4.10(0.60)	43
	Average SCORE	**4.07**	**32**
C	**Innovations-related Competencies**		
14	Keeps in touch with major developments in his/her field and with opportunities for innovation in the organization	4.05(0.705)	35
15	Often comes up with original solutions to difficult problems	4.03(0.669)	34
16	Seeks novel or offbeat solutions in tough problem situations	3.94(0.729)	26
17	Is impatient with traditional/conventional solutions to problems	4.08(0.676)	40
18	Fine sense of timing for introducing changes or innovations	4.18(0.706)	37
	Average Rank	**4.056**	**34.4**
D	**Resilient Problem Solving Competencies**		
19	Does not get disheartened in a tight corner and quickly tries to find a way out	3.98(0.704)	15
20	Does not get unnerved even in hard choice situations	4.04(0.41)	11
21	Takes criticism or failure positively	4.07(0.441)	5
22	Not intimidated by big bosses	4.033(0.407)	9
23	Can mobilize resources for a task even when resources are scarce	4.039(0.434)	25
24	Generally first generates several alternatives before evaluating any of them	4.01(0.41)	20
25	Can bring order even to messiest situations by systematic analysis	4.13(0.433)	23
26	Thinks through alternative courses of action before taking a decision	4.035(0.463)	28
27	Carefully maps out all the steps of a course of action	4.09(0.472)	21
	Average	**4.047**	**17.4**
E	**Task Execution Competencies**		
28	Puts out his/her best and expects to come out way ahead of others	4.05(0.729)	6
29	Can be counted upon to play his/her part in getting jobs done	3.96(0.615)	12
30	Likes taking up challenges that come his/her way	4.00(0.656)	44
31	Tends to set for self stretch goals/targets and deadlines	4.08(0.623)	41

32	Seeks and accepts personal responsibility for getting a job done	4.11(0.744)	27
33	Wants to be on top in whatever he/she does	4.13((0.71)	33
34	Known for following up on tasks for getting them effectively executed	4.23(0.81)	10
	Average	**4.08**	**24.7**
F	**Interpersonal and Leadership-related Competencies**		
35	Can take charge when things go wrong and provide guidance to others	4.06(91)	2
36	Easy for this person to empathize with others	4.14(0.66)	7
37	Is direct and open in dealings with others	4.19()0.67)	17
38	Others turn to this person in their moments of emotional stress	4.13(0.733)	8
39	Puts across his/her point of view clearly and persuasively	4.18(0.77)	14
40	Is a patient listener and judges only after fully understanding the other person	4.17(0.67)	4
41	Calmly gives to others a correct picture of his/her thoughts and feelings	4.08(0.72)	42
42	At work, seeks suggestions and opinions of colleagues	4.05(0.752)	16
43	Is at ease with others and enjoys close working relationships	4.00(0.634)	22
44	Can inspire others and infuse them with his/her enthusiasm for a tough task	4.04(.781)	19
45	Visualizes big goals and gets people excited with his/her enthusiasm for a tough task	4.12(0.694)	38
	Average	**4.10**	**17.18**

Table - 2 Role Effectiveness

Sl.No.	Role	Average Score (Std.Deviation)	Rank
A	**Strategic Managerial Roles**		
1	Formulation of policies	3.70(1.302)	4
2	Planning of changes and innovations in area of jurisdiction	4.05(.945)	12
3	Securing critically needed information and intelligence for formulating goals	4.05(1.050)	18
4	Setting of long-term objectives for area of work	4.10(.968)	23

5	Securing an understanding of the nature of the organization's vendors, competitors, etc.	4.10(.968)	24
6	Contributing to the growth and diversification of unit/department	4.25(.716)	25
7	Procuring scarce financial, human, technical resources for the unit/department	3.95(.887)	26
8	Building up the image of unit/department	4.20(.951)	15
	Average	**4.05**	**18.4**
B	**Operations related Managerial Roles**		
9	Implementation of policies	4.25(.910)	2
10	Implementation of changes and innovations in area of jurisdiction	4.30(.657)	5
11	Setting of short-term tasks and targets for area of work	4.40(.681)	8
12	Fair allocation of the work to members of the staff	4.30(.571)	6
13	Seeking suggestions and help from 'clients' in order to improve the services provided by his/her department/unit	4.35(.587)	16
14	Operating an appropriate control system for the department/unit	4.10(.641)	10
15	Providing periodic feedback to staff and helping them review their performance	4.25(.550)	7
16	Rewarding/encouraging good performance	4.40(.681)	11
17	Anticipating and/or mitigating crises	4.20(.616)	13
	Average	**4.28**	**8.66**
C	**Leadership Roles**		
18	Developing effective working relationships with colleagues	4.35(.745)	9
19	Getting the cooperation of colleagues in furthering his/her aims as well as organization-wide objectives	4.30(.571)	1
20	Clarifying the culture (norms, values, and organizational processes) that shouldcharacterize his/her department/unit	4.30(.470)	14
21	Motivating and inspiring staff to turn in excellent performance	4.40(.754)	3
22	Providing information and other resources necessary for staff to perform their tasks well	4.30(.470)	17
23	Providing proper guidance and counseling to staff members	4.20(.616)	15
24	Getting the staff excited by taking on challenging goals and innovations related to area of operations	4.25(.639)	12
25	Fostering a spirit of collaboration and teamwork in the staff	4.35(.587)	21
26	Resolving conflicts between staff members constructively; fairly judging disputes	4.30(.571)	22
	Average	**4.31**	**12.6**

Test of Hypthesis 1

Table -3

One Sanple t Test

Type of Competency	Test Value=0								95% Confidence Interval of the difference	
	N	Mean	Std. Deviation	Std. Error	t	df	Sig (2 tailed)	Mean Difference	Lower	Upper
Contextual Sensitivity	20	1.95	.759	.170	11.487	19	.000	1.95	1.59	2.31
Innovation related	20	1.9	.641	.143	13.362	19	.000	1.9	1.60	2.20
INITIATIVE	20	1.65	.587	.131	12.568	19	.000	1.65	1.38	1.92
Interpersonal and leadership	20	1.9	.718	.161	11.831	19	.000	1.9	1.56	2.24
Task execution	20	1.5	.513	.115	13.07	19	.000	1.5	1.26	1.74
Problem solving	20	2.25	.851	.19	11.828	19	.000	2.25	1.85	2.65

Inference

As observed in the above table the significance value is .000 which is below .05. Thus our hypothesis is proved to be positive. There is significant difference in the competencies possessed by the managers.

Test of Hypothesis - 2

Table - 4: Correlation Analysis

Factors		Contextual Sensitivity	Innovation related	Interpersonal and relationship	Task Execution
Contextual Sensitivity	Pearson Correaltion	1	.752**	.717**	.809**
	Sig. (2-tailed)	.	.000	.000	.000
	N	20	20	20	20
Innovation related	Pearson Correlation	.752**	1	.757**	.749**
	Sig. (2-tailed)	.000	.	.000	.000
	N	20	20	20	20

Interpersonal and Relationship	Pearson Correlation	.717**	.757**	1	.774**
	Sig. (2-tailed)	.000	.000	.	.000
	N	20	20	20	20
Task Execution	Pearson Correlation	809**	749**	.774**	1
	Sig. (2-tailed)	.000	.000	.000	.
	N	20	20	20	20
Problem solving	Pearson Correlation	.731**	.770**	.751**	.734**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	20	20	20	20
Initiative Management	Pearson Correlation	.820**	.785**	.745**	.798**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	20	20	20	20
Strategic Roles	Pearson Correlation	.789**	.783**	.642**	.803**
	Sig. (2-tailed)	000	000	000	000
	N	20	20	20	20
Leadership Roles	Pearson Correlation	.764**	.844**	.812**	.791**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	20	20	20	20
Operational Roles	Pearson Correlation	.731**	.617**	.676**	.677**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	20	20	20	20

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

Problem Solving	Initiative Management	Strategic Roles	Leadership Roles	Operational Roles
.731**	.820**	.789**	.764**	.731**
.000	.000	.000	.000	.000
20	20	20	20	20
.770**	.785**	.783**	.844**	.617**
.000	.000	.000	.000	.000
20	20	20	20	20
.751**	.746**	.642**	.812**	.676**

.000	.000	.000	.000	.000
20	20	20	20	20
.734**	.798**	.803**	.791**	.677**
.000	.000	.000	.000	.000
20	20	20	20	20
1	.723**	.756**	.755**	.696**
.	.000	.000	.000	.000
20	20	20	20	20
.723**	1	.803**	.792**	.667**
.000	.	.000	.000	.000
20	20	20	20	20
.756**	.803**	1	.724**	.668**
000	000	.	000	000
20	20	20	20	20
.775**	.792**	.724**	1	.719**
.000	.000	.000	.	.000
20	20	20	20	20
.696**	.667**	.668**	.719**	1
.000	.000	.000	.000	.
20	20	20	20	20

Results and Discussion

Managerial competencies should facilitate effective role performance. The results of the correlation analysis show, the roles and the competencies were highly correlated. There exist a strong correlation between the managerial competencies and role effectiveness at 95 percentage significance level. Hence our second hypothesis was also proved to be positive.

Table 2 indicates the role effectiveness of the managers selected for this study. They seem to be more expertise on at discharging their leadership roles (average rank 12.6) and operations-related roles (8.6) than their strategic roles (18.40). The higher the average rank the lower is the efficiency.

In terms of competencies they managers lightly have an edge on their leadership competencies and contextual sensitivity competencies that indicate that they are pretty aware of their responsibilities of the position they uphold. Further they are able to manage business complexities arising within their organizations. However managers should focus on relatively weaker areas on innovation related and initiative management competencies as these are crucial for organizations success in a competitive world.

Managerial Implication

The study helped us to understand that it is desirable for a manager to have a set of behavioural and technical competencies to deliver his role effectively irrespective of his or her functional area. The study also proves that factors such as a persons technical abilities, experience which are-considered as objective measures of success or determinants of an organizational performance in a mass production economy, is substituted with knowledge workers whose skills are intangible and are more value-driven and behaviour-based (Sveiby, 1997). The Management should focus on measures to identify different types of managerial competencies related to their domain area which will result in better hiring/promotional decision.

Limitations and Future Research

The limitations of research in behavioural science are that the findings of a particular study will not help in generalizing the concepts. The research is limited to only managers of a particular Tyre manufacturing factory in Kerala and it is possible that perception about mangers and their competencies differ from organization to organization and the results may or may not be applicable to other organizations. Further the study has the following limitations This research was confined to subordinates; the managers were not allowed to assess their own competencies. The competencies considered for the study, are just limited to seven competencies defined by Khandawala (2004) otherwise which can be named as Khandawala's managerial competencies that are related to role effectiveness. So any study in this line future should be focused on identifying other competencies that are essential for role effectiveness.

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Liberalization of Higher Education: Bologna Accord

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Abstract

This paper investigates the current status of higher education in India. Using primary and secondary data, the need for collaboration among universities is highlighted. How higher education can contribute to achieve our national mission, if aligned properly by bringing in more changes through liberalization, is discussed. Universities in Europe are undertaking major changes under Bologna accord. Indian institutes of higher learning can benefit significantly by adopting some of the best practices followed in Europe. Education being a part of trade in services under WTO regime, within education, higher education is the right segment which can be liberalized.

India is a founder member of WTO. With more than fifty percent of GDP contributed by services and education being an important area under services, there is an urgent need to take a serious look at this sector. If our higher education cannot meet the changing needs of industry, we may lose our current status as the best software developing country of the world. To meet our national goal of emerging as a developed nation before 2020, higher educational sector, if reformed, can play the leading role. With the largest number of aspiring youth, we cannot delay the corrective measures. Lack of access and quality in higher education within the nation can be very costly both in terms of hard earned foreign currency and talent of the youth. Empowerment of youth by offering the latest and best quality of higher education is the prime responsibility of our universities and schools of higher learning.

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Higher Education in India

With more than 400 universities and over 20,000 colleges, the student enrolment in India has crossed 12.9 million in 2007-2008. At present, government aided and managed institutions play a secondary role in higher education in the country. Private unaided institutions have 63 percent share. In 2001, the share of unaided private institutions was 42.6 percent. They have played significant contribution in maintaining the supply of skilled manpower to the industry.

The word university is derived from the Latin 'universitas magistrorum et scholarium,' roughly meaning - community of teachers and scholars. India has the third largest higher education system in the world after China and USA. India produces 25 lakh graduates, 3.5 lakh engineers and nearly one lakh MBAs every year. There are high regional imbalances. The access rate is very low. Although enrolment is over 12 million, access rate is less than nine percent of the eligible population. Variations in quality, declining interest in basic sciences, humanities, and emerging private participation are the current trends. Educational institutions can be established only by registered societies, trusts, charitable companies and not by individuals. All India Council for Technical Education (AICTE) regulates, behalf of Union Government, the entry and operation of foreign universities imparting technical education in India. Despite its vast network of universities and colleges, India has failed to create a world class higher education system (Murthy 2009). Our annual output of PhDs in the Computer Science (CS) area, in which India is said to be strong, is around 25 while that of US is 800 and China is 2500. According to the ranking of world universities for 2005, India had just two in the top 500. Our higher education system has failed to produce quality institutions that can nurture leaders we require for sustainable growth (Murthy 2009).With just 1.9 percent of GDP allocated for higher education, lowest among nations with GDP higher than $500 billion, the drive to create world class institutions of higher learning has disappeared from our nation.

According to Amit Mitra, Secretary General FICCI, the quality of new graduates is a critical issue that needs to be addressed. Self regulation through transparency in procedures and disclosures along with good faculty and teaching-learning processes would help in creating the trust amongst students, parents, industry and government.

Key Focus areas for higher education according to a recently done study by FICCI include:

1. Innovation in financing
2. Use of ICT
3. Research grants and research outputs
4. Skill development
5. Regulatory framework
6. Developing industry partnerships
7. Vocational education and training (VET)
8. Accreditation

Why Look at Higher Education?

Indian government is unable to allocate enough funds to meet the growing needs of higher education in the country. With the passing of the Right of Children to Free and Compulsory Education Act on 4 August 2009, the limited resource allocated by government for education will get used up in primary and secondary education leaving very little for higher education in the coming years.

The difference in quality of graduates passing out from various Indian universities is quite high. Hyderabad based Indian School of Business is the only business school among the global top 100 business schools (FT, 2009) though India has nearly 1600 business schools.

As India is going through the second generation reforms aiming at faster integration with world economy, participation by foreign universities has to be welcomed. Higher technical education has tremendous potential to absorb any amount of FDI even during recessionary period. Entry and investment by foreign university will make quality higher education accessible to the aspiring candidates at a fraction of the cost of going abroad for doing the same course. This will also prevent outflow of hard earned foreign currency. Union government has to build a national consensus on welcoming good foreign universities to invest in the higher education segment of our education sector.

In US, for the last eight consecutive years, Indian students are the largest contingent and have for the first time crossed one lakh. In 2007-08 US earned $3 billion from Indian students. In 2008 alone, more than 52,000 students enrolled for various vocational programmes in Australia, making them the largest community from a single country. Recent developments in Australia prove that Indian students may not be safe even in friendly foreign nations.

As employment generation is looked upon as a responsibility of government, making the youth employable becomes a more fundamental responsibility of the nation. This is not possible without the participation of private sector. Higher education sector should be liberated from the highly bureaucratic control regime both at the centre and state. There is an urgent need to improve our human development index which according to UNDP 2009 report has ranked India in the 134th position out of 182 nations.

Services are the largest and fastest growing sector in Indian economy. With FDI in education sector, the contribution from this sector to GDP can be further enhanced. This will in turn reduce our dependence on other sectors which has a lower potential to grow. Global trade in higher education is estimated to be more than US $30 billion per annum. International education has become big business. Nearly three million students study outside their own countries spending billions of dollars. Though we allow foreign university participation through twinning, franchising or collaboration, it is not enough to meet the burgeoning need for higher education in the country. India has received requests for entry through FDI route from various countries like US, Australia, Singapore, Brazil, Japan, New Zealand and Norway. FDI in higher education will play a catalytic role in integrating Indian economy with the world economy.

Lessons from Bologna Accord

Bologna accord aimed at making the academic degree standards and quality assurance standards more comparable and compatible throughout Europe. It is named after the place it was proposed, the University of Bologna in the Italian city of Bologna. The ministers of

Table 1: Impact of Bologna Agreement on Students and Universities

Benefits	Problems
Better collaboration between universities and opportunity for quality enhancement	Maintaining uniformity in course delivery
More than 50 percent of European universities are able to exchange students	Maintaining uniformity in assessment
Programme coordinator in each university or institute retain the freedom to design the course contents	Few universities which are members of this network are not at par with the majority in terms of quality
Provide easy mobility with in Europe	
Provide more exposure to students	
Financial support (For one term-300 • per month)	
The final certificate will carry the authentication by all universities under which the candidate completed the programme	

Since the collaboration is among universities of almost similar stature, the quality of programme is almost uniform
Better acceptance of students by industries
An opportunity for foreign students to get work/residence permit in European Union countries
Has helped to attract more foreign students
The networked universities have gained more visibility at an international level.

Source: Based on an interview with Mr. Arvind Upadhyay who is currently a faculty at GDGWI and has completed masters under this system in three different countries (UK, Italy and Sweden)

education from 29 European countries signed the Bologna accord in 1999. The Bologna Process currently has 46 participating countries, whereas there are only 27 Member States of the EU. Bologna accord established uniformity in three levels of higher education: Bachelor (three years), Masters (one or two years in addition to three or four years for a Bachelor), and Doctorate (an additional three or four years after a Masters). Students can acquire professional experience after their initial bachelor degree at any European institution and later complete their masters in any other European institution via the European Credit Transfer and Accumulation System.

According to Grange, T. (2007), the Bologna accord promotes the integration of European education and prepares students for an international career. Mobility by students and faculty has helped to improve the management practices at the university level better than any individual policy initiative in the past. The major benefits of the Bologna accord include revision of curriculum, continuous up gradation of courses, faculty have an opportunity to look at and learn from better practices in other universities, and finally students are given more choices and exposure. Beyond academics, Bologna accord is able to contribute to integration of European Union and peace in the region.

From the above table it is very clear that the benefits of collaboration among universities are much higher than the problems it will generate. Indian universities can immensely benefit by collaborating among themselves and with foreign universities.

WTO and Higher Education

In India, education is still seen as a social activity rather than a commercial enterprise. Higher education, being a part of services, and India being a signatory in WTO, there is no alternative for us as an emerging global power than welcoming foreign universities. This will encourage globalization on one side and meet the fast growing need for higher education with in the country. This means our attitude towards higher education should shift to that of a commercial enterprise.

According to Kaul (2006), the WTO covers four types of services. These are:

- Cross border supply of services from territory of one member to another member. Distance education falls in this category.
- Consumption of a service abroad by the citizens of a member country on the territory of another member country. The most common example is undertaking studies abroad.
- Commercial presence of service supplier of a member country on the territory of another member country, enabling the supplier to provide a service in that territory. This includes activities carried out by foreign universities or other institutions in another country.
- Presence of natural persons enabling a form of trade resulting from mobility of people from one member country who supply a given service in another country. In education this would imply courses offered by foreign teachers.

Any barrier in its free flow is considered to be 'non-tariff barrier.' In the sector of education non-tariff barriers are generally refer to government regulations, exchange controls, nationality requirements of students and teachers, non-recognition of equivalent qualifications, and rules regarding use of resources and subsidies. So far only 40 countries have agreed to the full provisions of WTO. Many have chosen to limit its scope. Higher education services, however, now figure in India's offer on liberalization in trade in services that the Commerce Ministry has submitted to WTO in August 2005 (Kaul, 2006). The leading universities in each country are trying to reach out to as many students as possible and through that, want to be a global player. Such efforts adds to the WTO initiative and puts pressure on every country to liberalize higher education and there by globalizing higher education.

WTO regime has benefited the Indian IT and ITES industries. We can sustain the current growth rate of this sector only when we produce good quality graduates and post graduates who can add value to the organization from day one. According to Diana Farrell (2006), director of the McKinsey Global Institute-"only about ten percent of Indian students with generalist degrees in the arts and humanities are suitable, compared with 25 percent of all Indian engineering graduates. The graduate's different levels of skill reflect the varying quality among India's universities. The best are superb, but many of the rest are indifferent, and the best graduates from the top schools often emigrate." India needs quality engineers with practical knowledge and skills in multi domain areas to ensure their employability for the jobs available within and outside the country. This calls for an approach in which now there is a perceived gap (Dua and Sharad, 2007).

The higher education in India need to align itself to the industry needs, else, majority of students who leave the portals of Indian universities will be considered unfit for industry. According to Kiran Karnik, erstwhile president of NASSCOM, only 20-25 percent of our engineering graduates and 10-15 percent of non-engineering graduates are employable in IT and ITES sectors. This shifts the burden of training fresh graduates to hiring firms. Infosys's training centre at Mysore is said to be 'the largest corporate training facility in the world.' It has the capacity to train 4000 employees at a time and aims at training 12,000 employees per year. This is a testimony to the heavy investment which each company has to make to train its newly hired employees. The need for imparting new skills as per the industry needs will only increase if the universities don't take urgent measures to upgrade their curriculum.

Globalization of higher education is a must to produce global managers, entrepreneurs and leaders. India has the potential to emerge as a regional hub for higher education if we facilitate the setting up of ten to fifteen universities in each state of India in partnership with the best universities across the globe.

Conclusion

The aim of a country's higher education system is sustainable development and cannot be limited to awarding degrees. The competitiveness of a nation depends on the knowledge of the people which in turn depends on the quality of university education. According to Prof. Clark Kerr, the prosperity of a nation is today more dependent on knowledge than natural resources. Indian universities must cultivate an environment of openness, government should provide more autonomy to universities/institutes of higher education and India should welcome foreign universities to meet the rising aspiration levels of Indian youth. The funding of higher education should be left to private sector and the role of government, both central and state, should more of ensuring delivery of primary and secondary education along with regulating the total education sector to achieve the national goals.

India was the home of the largest and oldest university of ancient times, Nalanda which also has the reputation for being the first residential international university of the world with around 2,000 teachers and 10,000 students, from all over the world. Recreating the history, once again becoming a knowledge hub of the world and leading in the knowledge economy is not impossible for our great nation.

Key Words: Higher Education, Bologna Accord, WTO, Indian Students.

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Social Banking: Impediments

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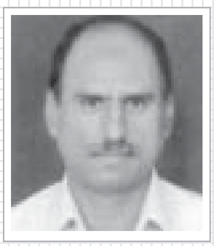
Abstract

Banking system constitutes an important link among the various economic activities and plays a direct role not only in creating the machinery needed for financial development activities but also in ensuring that the finance made available goes into the desired direction. The banking industry is being diverted from class banking to mass banking; from security oriented lending to purpose oriented lending and from profit oriented financing to social banking. Social banking stands for the orientation and direction of the various activities of commercial banks towards the upliftment of the poor and downtrodden with the aim of achieving social pattern of society.

Indian economy, basically being agrarian, depends upon agriculture to the extent of nearly 70 percent of the Indian population for the livelihood. In the 1950s and 1960s, the country had to import food grains to meet its requirements.The successive Five Year Plans embarked upon the Green Revolution and White Revolution for which modernization and mechanization of agriculture and allied activities was a must and that needed financial support. The social banking paves way to the policy-induced bank assistance to designated priority sections of the community, such as, agriculture, small-scale industries, professionals and self-employed, road and water transport operators, retail trade and small business and education, which had hardly any access to the banking system prior to nationalization of banks in 1960. Social Banking implied opening of branches in places hitherto unbanked and accent on liberal lending for rural avocation. Coupled with massive opening of bank offices in unbanked areas, a



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number of programmes, schemes and measures were taken-up by the banks to transform the concept of social banking into an action-oriented programme.

Need for the Study

Banking is now an essential part of our economic system. Modern trade and commerce would almost be impossible without the availability of suitable banking services. It is inevitable that one has to search for financial support from the banks. Time and again, it is found that getting money from banks is easy since there appear to be many administrative and social difficulties exist while obtaining loan from banks. These elements are: source of information regarding bank loan, filling-up of application form, time-lag between application for loan and actual disbursement of loan, problems faced in providing security for bank loan, amount spent on obtaining bank loan, delay in disbursement of loan etc. Hence a need was felt by the researcher to study an in-depth analysis of the reasons for seeking bank loan.

Objective

The objective of the present paper is to identify various challenges faced by the beneficiaries as well as the banks in the process of credit deployment.

Methodology

A survey of 50 borrowers has been selected and an attempt has been made to highlight the difficulties faced by bank officials in the process of lending. In this regard, a survey of 25 bank officials was made by randomly selecting them to collect information from 20 Commercial Banks and five from Regional Rural Banks in the Haveri District of Karnataka. A set of pre-tested questionnaire was administered to seek the opinion of borrowers as well as bankers with reference to their problems faced during the transaction of lending as well as borrowing.

Data Analysis and Interpretation:

A-Beneficiaries **B-Bankers**

The data so collected was analyzed as per the well designed questionnaire and the same was properly managed to process and tabulate in a set of statistical tools like percentage averages, ratios etc. The analysis of data is done with a view to draw appropriate inferences and conclusions. This study was clearly designed broadly into two parts viz., Bankers and Borrowers. Mean, Standard Deviation and Coefficient have been applied and data is presented in the form of graphs, wherever necessary.

A-Beneficiaries:

Table-1: Reasons for Seeking Bank Loan

Reasons	(X) No. of Respondents	%
Low rate of interest	9	18
Non availability of loans from other sources	19	38
Subsidy benefit	14	28
Easy terms of repayment	5	10
Other reasons	3	6
Total	50	100

Source: Field survey

A-Beneficiaries

Thus, analysis of reasons points out interesting facts for seeking bank loan. For the borrowers belonging to weaker sections engaged in non-agriculture activities, the most prominent reason for seeking bank assistance is not the low rate of interest, rather than non-availability of loan from other sources. Beneficiaries are more concerned about finding the amount without any difficulty and delay and are ready to pay interest even at a high rate.

It may be noted that subsidy acts as a motivational force to encourage people to apply for bank loan since more than 28 percent of the sample beneficiaries reported the subsidy benefit as the main reason for seeking bank loan. Sources of information are also important factors of Social Banking as depicted in the table No.2.

Table-2 Source of Information Regarding Bank Loan

Source	(X) No. of Respondents	%
Sponsoring agency officials	20	40
Panchayat secretary	20	40
Friends/relatives	08	16
Any other source	02	04
Total	50	100

Source: Field survey

Table-2 explains that sources of information regarding bank loan is either from bank officials, friends and relatives, whereas, for beneficiaries of other sectors, sponsoring agency and bank officials played equally important role. Panchayat Secretaries and friends and relatives of borrowers were also the source of information for a sizable number of persons i.e. 40 percent. However, it was found that a majority of these persons belonging to weaker sections did not know the terms and conditions of bank loan including rate of interest, schedule of repayment and the magnitude of installments.

Table–3: Selection of Activity for which Bank credit was provided

Selection done by	(X) No. of Respondents	%
Sponsoring agency	22	44
Bank officials	13	26
Friends/relatives	10	20
Self	05	10
Total	50	100

Source: Field survey

Table-3 elaborates that half of beneficiaries got loan for the activity of their choice or for their traditional occupation. It may be noted that, in large number of cases, the activity for which loan was advanced, suggested by sponsoring agencies.

It can be observed from Table-4 that only a small number of loanees made a change in main occupation after obtaining bank loan in agriculture and allied activities.

Table-5 highlights that, in the case of direct financing for agriculture, the application forms were generally filled by

Table - 4: Change in Occupation after Obtaining Bank Loan

	Respondents	%
Loanees made no change after getting bank loan	38	76
Loanees made change after getting bank loan	12	24
Total	50	100

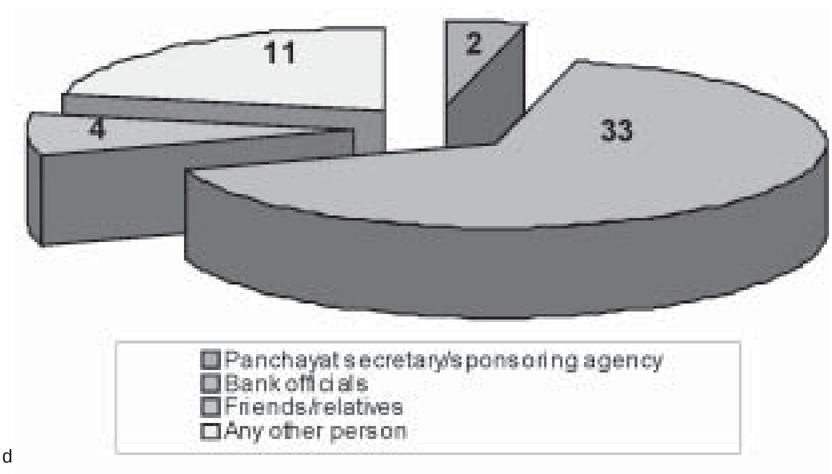
Source: Field survey

Table- 5 Filling up of Application Form

Form filled by	(X) No. of Respondents	%
Panchayat secretary/sponsoring agency	2	4
Bank officials	33	66
Friends/relatives	4	8
Any other person	11	22
Total	50	100

Source: Field survey

Filling up of Application Form



Source: Field

Table - 6: Time-lag Between Application for Loan and Disbursement of Loan

No. of days	X	No. of Respondents (f)	%	fx	
1-30	15	30	60	450	$\overline{X} = \frac{2010}{50}$
31-60	45	10	20	450	
61-90	75	05	10	375	
91-120	105	01	2	105	= 40.20

121-150	135	01	2	135
151-180	165	03	6	495
Total		50	100	2010

Time-lag between Application for Loan and Disbursement of Loan

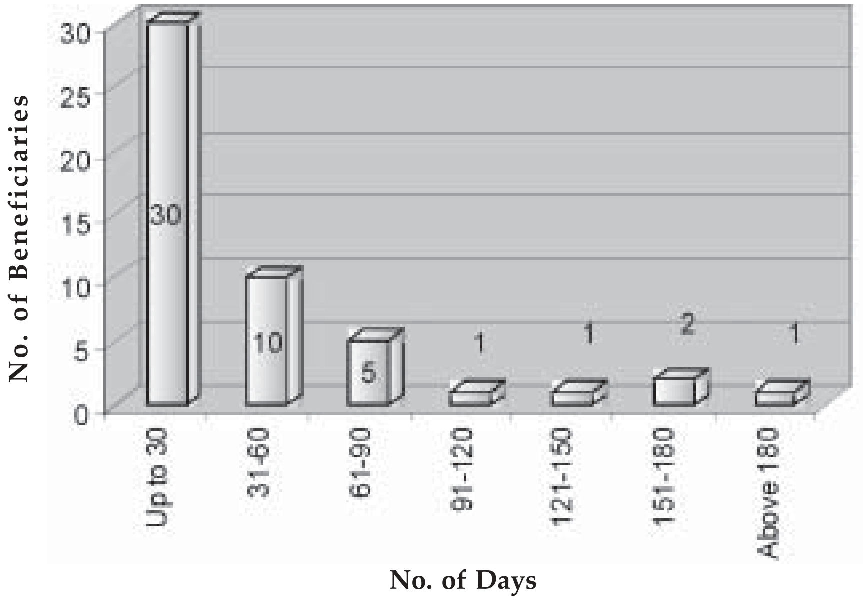


Table-7: Difficulty in Arranging Security Demanded by Bank

	No. of Respondents	%
Yes	18	36
No	32	64
Total	50	100

Source: Field survey

Diffculty in Arranging Security Demanded by Bank

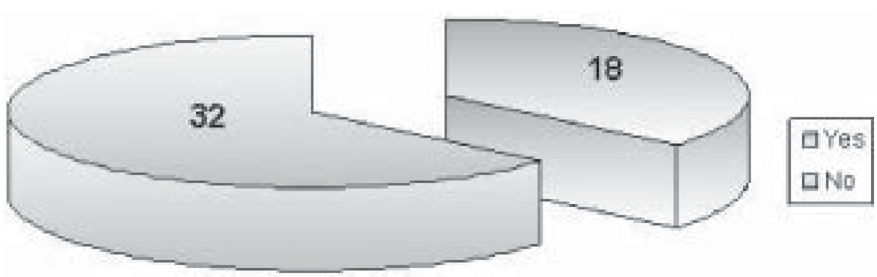
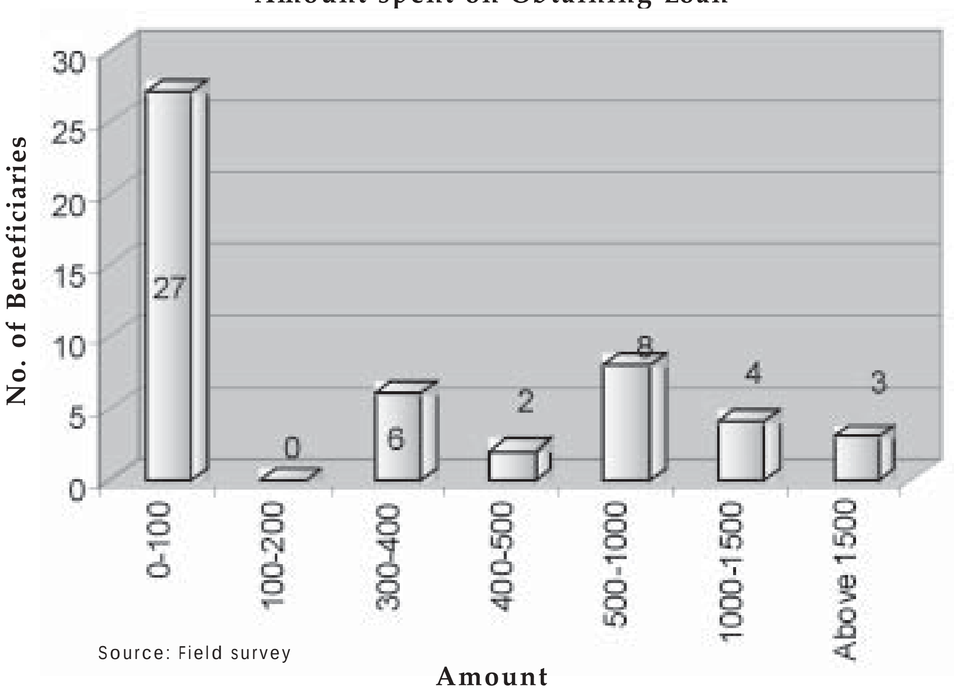


Table - 8: Amount Spent on Obtaining Loan

Amount (Rs)	x	No. of Respondents (f)	%	fx	
1-100	50	25	50	1250	$\overline{X} = \frac{19600}{50}$
100-200	150	02	04	600	
300-400	350	06	12	2100	
400-500	450	02	04	900	= 392
500-1000	750	08	16	6000	
1000-1500	1250	07	14	8750	
Total		50	100	19600	

Amount spent on Obtaining Loan



Source: Field survey

bank officials, whereas, in sponsored cases, the forms were mostly filled up by sponsoring agency officials or Panchayat Secretary. The situation is mainly attributed to the fact that there is still mass-scale illiteracy in the rural areas of the district.

The reasons for inordinate delay have been observed mainly in sponsored cases where delay in release of subsidy delays the disbursement of loan. The average time required to get bank loan sanctioned is 40 days.

The beneficiaries of agriculture sector complained of harassment from revenue officials in procuring documents as required by bank. This amounts to wastage of both time and money.

It was observed that at almost every stage in the process of credit deployment, a beneficiary could not help paying some amount to concerned officials in order to get case cleared. In many cases the amount of subsidy was eaten up by greedy and dishonest officials or middlemen.

Table-9: Reasons for Delay in Disbursement of Loan

Reasons	(X) No. of Respondents	%
Delay in release of subsidy	02	60
Shortage of staff in bank office	03	20
Documentation formalities	05	10
Non-cooperative attitude of bank officials	05	2
Non-cooperative attitude of sponsoring agency officials	10	2
Other reasons	05	4
No delay	20	2
Total	50	100

Source: Field survey

Table- 10: Mode of Disbursement of Loan

	(X) No. of Respondents	%
Loan disbursement mode	30	60
Defective as it results in purchase of asset of poor quality	02	04
Defective as it leads to payment of high price for the asset	05	10
Defective as it limits the choice for the purchase of assets	13	26
Total	50	100

Source: Field survey

This requires the attention of bank authorities which should give top priority to provide adequate staff at rural branches. Other reasons, which resulted in delay of loan disbursement, were the non-cooperative attitude of bank officials as well as sponsoring agency officials. There is a need of attitudinal change among the dealing personnel so that there is no exploitation of the poverty-stricken people for whom the government is doing its maximum to pull them above BPL.

Table-10 makes it clear that for a majority of borrowers that the mode of disbursement is absolutely right. On the other hand, the mode of disbursement was found to be defective because the system of third party payment. This system results in exploitation of beneficiaries of social banking programmes. It is better to provide cash directly to beneficiaries so that can make use of loan in the best possible manner and verifying the quality of asset before it is purchased.

It has been seen that those who were provided training were able to get better results from the activity financed. However, no training was imparted to the beneficiaries of agricultural sector. Thus, more attention should be given to provide adequate training to a person before he/she is financed under a social banking scheme.

B- Bank Officials Opinion

Problems faced by Bank officials:

An attempt has been made to highlight the difficulties faced by bank officials in the process of social lending. For this purpose a survey of 25 banks officials consisting of 20 from commercial banks and 5 from RRB's at the ratio of 4:1 has been conducted and same is depicted in the table No.12.

Table-11: Training of Beneficiaries

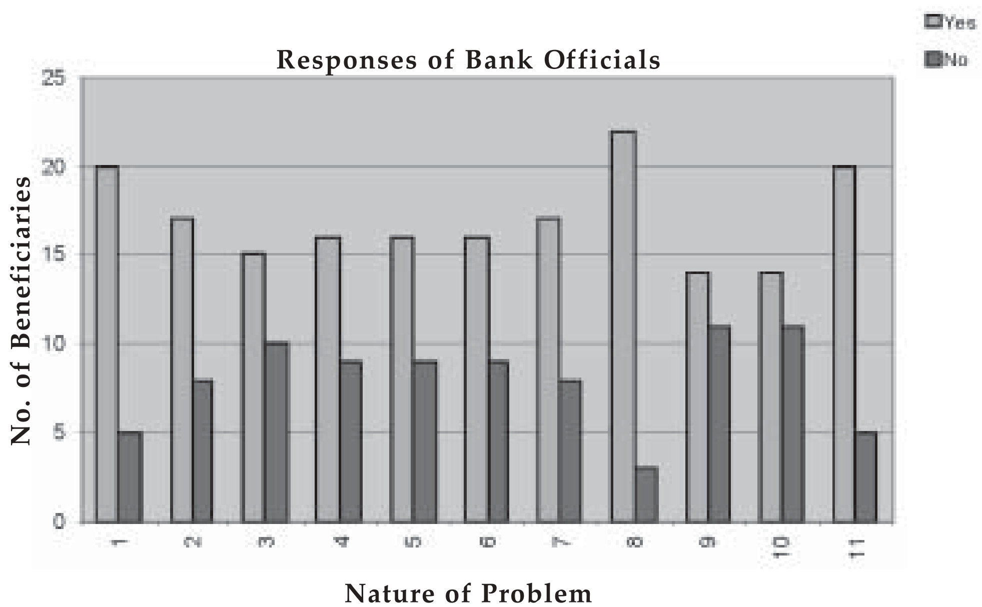
Training Imparted	No. of Respondents	%
No training imparted	40	80
Training was found to be satisfactory	05	10
Training was found to be unsatisfactory	05	10
Total	50	100

Source: Field survey

Table- 12: Responses of Bank Officials

Sl.No.	Nature of Problem	No. of Bank Officials			
		Yes	(%)	No	(%)
1	Problem of identification of borrowers (political pressure, lack of information)	20	80	05	20
2	Inadequacy of staff	17	68	08	32
3	Lack of facilities for follow up of credit	15	60	10	40
4	Non cooperation from other agencies	16	64	09	36
5	Problems of infrastructure	16	64	09	36
6	No security against loan	16	64	09	36
7	Undue stress on dairy activity	17	68	08	32
8	Delay in release of subsidy	22	88	03	12
9	Poor working conditions in rural areas	14	56	11	44
10	Miss-utilization of loan	14	56	11	44
11	Poor recovery of loan	20	80	05	20

Source: Field survey



In the process of survey of bank officials, it has been found that most of the bank officials are city-based; their exposure to rural environment is limited to their being posted in rural branches for a short stint. Most of the bank officials serve rural offices simply to fulfill their condition of having performed rural service for higher promotion. They try to be posted at an office near a town and at a minimum distance from their place of residence. They want to move out of rural areas as early as possible hence, their commitment to social banking is lacking.

Major Findings

- The question on reasons for seeking bank loan revealed very significant answers out of the sample 50 beneficiaries. 38 percent of the Respondents sought bank loan as they did not have any other source to get loan, 28 percent loanees were inclined towards bank assistance mainly to get a gift of the subsidy amount from the Government. 18 percent applied for bank loan owing to low rate of interest charged by banks. About ten percent came forward because of easy terms of repayment as well as fair dealing of banks and three percent loanees got bank loan for other factors like no exploitation by the banks.

- It was observed that a majority of loanees belonging to weaker section of the society did not know the terms and conditions of bank loan including rate of interest, schedule of repayment and magnitude of installment.

- It was noted that, in a large number 44 percent was suggested by sponsoring agencies.

- It was found that very small number of loanees from agriculture sector filled up their application forms themselves. This situation is mainly attributed to the fact that there is still mass-scale illiteracy in the rural areas of the district.

- It is disgusting that the time-lag between application for loan and disbursement of loan has gone up to even 360 days. The delay has been observed mainly in sponsored cases where delay in release of subsidy, delays the disbursement of loan.

A primary survey of bank officials has recorded that they are not satisfied with the procedure for the selection of borrowers under various schemes. Moreover, political interference, enhancement of targets at the fag-end of the year, short duration of credit complete, inadequacy of staff, under developed infrastructure, lack of facilities for follow-up of credit, undue stress on dairy loans, loans without collateral security, mis-utilization of loans, non-cooperation from other agencies, no proper publicity, delay in release of subsidy, poor working conditions, lack of cooperation from Government agencies in the process of recovery of loans and defective recovery regulations are the major problems pointed out by the bank officials in the district.

Recommendations

- Expansion of bank offices in neglected areas so that disparities in terms of banking services could be minimized.

- The rural branches must be adequately staffed to exploit the potential for lending, ensuring the end-use of credit, recovery of bank dues, house keeping and preparation for social lending. The bank managers, policy makers and beneficiaries should change their attitude.

- Priority sector lending is the important aspect of social banking, if social banking is to be made really meaningful for creating employment opportunities and helpful in upliftment of the downtrodden above the poverty line, the advances to the weaker sections should be raised.

- Younger farmer should be given preference as they have shown better results, who can run agriculture on scientific lines.

- There is a need to encourage other allied activities like piggery, bee-keeping, poultry, fisheries etc. Village youths are to be involved for the social campaign to create awareness amongst the masses in the villages.

- Bankers should have door to door campaign about the banks necessity and importance and educate the rural masses and extend an invitation to visit bank during leisure time.

- Banker should have loan mela so that masses could be brought forward and nearer to the banker.

Conclusion

Social banking is not a charitable task, the very fact that banks are commercial in nature and procure funds at a cost, means that in no case the rate of interest on social lending is lesser than their own cost of deposit mobilization. It is the timely and adequate availability of credit rather than its cost that is more important consideration for the borrower.

Thus, the success of social banking to a great extent depends on how affectively it is administered by the agencies and the extent to which the modus operandi of the scheme is understood and accepted by the target group. Any asset created through credit support to the target group is the net gain for the economy. If the loopholes in the implementation of the programmes are plugged in the light of suggestions made, the social banking measures will be able to set unique example, that the under developing countries may follow successfully for the amelioration of mass poverty and socio-economic development.

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Value at Risk Analysis:
NIFTY Index Portfolio

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Abstract

Among the various risk measures for effective portfolio management, Value at Risk (VAR) is considered as an ideal measure in determining boundaries of risk levels. In this exploratory study, the impact of various methods of calculating VAR and the impact of specific time periods in the determination of VAR is analyzed. When it comes to a market representative index, there is little to choose from the three methods discussed - historical method, historical simulation method and the Monte Carlo Simulation method. The boundary levels under each method are not breached for the period under consideration.

In wealth management, Value at Risk (VAR) models have a special place. While practitioners and academics have constantly differed on the precise parameter that needs to be considered in a VAR, it has been widely recognized that some variant of VAR will be necessary as an important parameter of risk measure.

While conventional measures using Value at Risk are easy to measure,they do not serve the purpose in a portfolio setting. This is because of the multiple variants that can occur in a portfolio holding including the correlation among the components therein. Theoretically these can be addressed by having a good estimation of the relationship inter se, but in practice this is not quite that easy. Further the various conventional methods also do not tell us as to the precise measure that could be useful in a given distribution since, it would also depend on the way we calculate returns.

In the following parts we look at the theoretical framework of VAR followed by a gleaning of some current research into its practical application in everyday situations. We then make a study of the behaviour of NIFTY stock over various periods and

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apply VAR to this, with the findings being compared to the actual position.

Scope and Objectives

In this paper we seek to look at the practical way in which different methods of calculating VAR can be put to use. We take the figures of NIFTY for the period from start of 2004 to end of 2009, and divide this period into various segments. The objective is to test historical VAR on its relevance to the figures of 2009. So, we take three separate periods – the five years from start 2004 to end 2008, the three years from start 2006 to end 2008 and the one year period from start 2008 to end 2008.

For each of the historical periods, the mean and standard deviation of returns is found out. With the help of these parameters, we draw up the VAR at the start of 2009, by using the historical method, the historical simulation method and the Monte Carlo simulation method. Then we check the actual figures of 2009 to verify as to whether the VAR limits held.

We find the mean return by using the natural logarithm of the quotient of the day 1 price upon day 0 prices. The mean of the mean prices gives the overall average price. The daily standard deviation is converted into a 10-day standard deviation by multiplying by the square root of 10.

The paper looks only at the NIFTY figures during the period and the scope is restricted to the movement of the flagship index of the National Stock Exchange.

Literature Survey

Fallon (1996) has outlined in detail the methodology for calculating VAR. The bound of losses on any set of data requires the drawing up of a probability distribution. In his study Fulton has developed "two new market risk measurement models that use a second-order approximation to the portfolio function and a multivariate GARCH (1.1) model for the state variables. We show that when changes in the state variables are modeled as conditional or unconditional multivariate normal, first-order approximations to the portfolio function yield a univariate normal for a change in portfolio value while second-order approximations yield a quadratic normal." While the method used is complex for all regular uses, it throws light on the factors that need to be taken into account.

Hull and White (1997) look at VAR when daily changes in market variables are not normally distributed. The authors come out with a new model which the user can use with reference to the probability distribution of the daily returns. The authors test nine years of daily data on 12 different exchange rates. The calculations are quite stable under this method, as per the authors.

Mausser and Rosen (1998) stress the importance of going beyond the mere measurement of VAR. They examine specific tools for calculation of VAR contribution, marginal VAR and trade risk profiles. In their words," we first review the parametric or delta-normal, versions of these tools and then extend them to the simulation-based or non-parametric case. We analyze two sample portfolios: one consisting of foreign exchange contracts is well-suited for parametric analyses while the other contains European options, is best addressed with simulation-based methods." The authors go on to discuss the limitations of a simulation-based study.

Saap (2008) outlines various methods of calculating and understanding VAR. He takes the example of a hedge fund to draw up various methodologies. Specific extension of the principles in a portfolio scenario is also seen. This will also lead, as shown in the case, the diversification value of the new assets.

Hansen and Johansen (1999) look at the aspect of parametric constancy in VAR models. In one method discussed, the parameters are estimated recursively based on the likelihood function of the first few observations. The second method involves estimating the co-integrating relations recursively.

Hall S.G. (1991) seeks to look into the effect of changing the order of the autoregressive system on the test procedures. The author claims that "while the small sample properties of the maximum likelihood estimator seem good, the power of the test statistics seems to be highly dependent on the specification of the vector auto regression."

Frey and McNeil (2002) examine the use of VAR in measuring credit risk in a portfolio setting and highlight certain issues resulting from using this measure. Next, they look at a balanced credit portfolio and the shortfall expectation therein. They also illustrate how for specific low-quality portfolios the choice of the model has some impact in measuring risk extremes.

The Model

Value at Risk has many and varied applications. In this, the following methods are the most popular:

1. The analytical method or the variance-covariance method
2. Historical method
3. Simulation method

We analyze in this paper the impact that each of the three methods will have on the planning for the next horizon. The basic premises on which this is being done are that we require a stable VAR analysis for determining the potential risk in the next period. We seek to ascertain as to which of the above methods actually brings this out.

The analytical method requires the probability distribution to be drawn up and then that will be the basis for determining the maximum negative return over a given period with 95 percent or 99 percent probability. The calculation assumes a normal distribution and seeks to calculate the change from the mean level by taking the times standard deviation. It is 1.65 times the standard deviation for a five percent level of significance and 2.33 times the standard deviation for a one percent level of significance. While this is the easiest to calculate it requires us to have the historical data to be as representative as possible in predicting the future outcome. Like in the calculation of Beta under the Capital Assets Pricing Model, here also there cannot be any unanimity as to the period of historical returns to be reckoned. Although there are many ways in which historical returns can be calculated, the standard procedure in academic circles is to take the log of the (price of day 1 divided by price of day 0). This procedure has been followed in this paper too.

The historical method would also use the past data for predicting the risk in future. But instead of the assumption of a normal distribution, it will go by a histogram approach and go to the probability distribution of the future. The difficulty in this method is the excessive reliability on a given set of historical data. The larger the data the more reliable the analysis, but more into the past will our analysis go to.

The simulation method seeks to address the issues brought out by the other two methods. A simulation exercise would require inputs as to expected returns, standard deviation and correlations among the various portfolio constituents. Here, keeping the correlation among the constituents constant, we simulate for price changes at various levels and draw out possible outcomes for the future. When the number of runs is large, the conclusion is likely to be more accurate.

Findings

We made an analysis of data for the period from 1st January, 2008 up to 31st December 2008, for NIFTY index and are trying out inferences from this data on the NIFTY performance in 2009. Analysis has been done separately using all the three methods and we seek to find the differences between he predicted VAR and as to whether this was borne out by the actual figures.

For the analytical and historical methods, separate analysis has been done taking the historical data for the one year of 2008, three years from 2006 to 2008 and four years from 2005 to 2008. The broad results are as follows:

Taking a one percent level of significance the VAR is given in Table 2 (the maximum amount that can be lost with a 99 percent probability).

Table - 1: Average and Dispersion

	Based on 2008 data (1 year)	Based on 2006-2008 data (3 years)	Based on 2005-2008 data (4 years)
Average return	-.00297	0.0001	.00034477
Standard deviation	.028026	.02098174	.01900302
10-day standard dev.	.088625	.066350089	.06009284

Table - 2: VAR at 1 Percent Level of Significance

	Based on 2008 data (1 year)	Based on 2006-2008 data (3 years)	Based on 2005-2008 data (4 years)
VAR	-.2094623	-.1396715	-.15452278
Nifty as on Jan.1 2009	3033.45	3033.45	3033.45
Maximum loss	635.39	423.69	468.74
Projected value of NIFTY at this level	2398.06	2609.76	2564.72

Table - 3: VAR at 5 Percent Level of Significance

	Based on 2008 data (1 year)	Based on 2006-2008 data (3 years)	Based on 2005-2008 data (4 years)
VAR	-.01491974	-.0988084	-.10940472
Nifty as on Jan.1 2009	3033.45	3033.45	3033.45
Maximum loss	452.58	299.73	331.87
Projected value of NIFTY at this level	2580.87	2733.72	2701.58

Table 4 Percentile method

	Based on 2008 data (1 year)	Based on 2006-2008 data (3 years)	Based on 2005-2008 data (4 years)
5th percentile	2709.79	2029.20	2870.81
1st percentile	2606.95	1931.02	2660.22

Taking a five percent level of significance the VAR is given in Table 3 (the maximum amount that can be lost with a 95 percent probability).

Taking a historical analysis of the data for the various periods as above the 5th percentile and the 1st percentile (corresponding to five percent and one percent level of significance respectively) is shown in Table 4.

Using Monte Carlo simulation we have done an analysis by doing 1000 runs. The average return and the standard deviation of the return for each historical period under reckoning (1 year, 3 years, and 4 years) has been used as the basis for running a simulation and having values generated for such a mean and standard deviation. The results of 1000 random runs are summarized Table 5.

Table - 5: Monte Carlo Simulation Method

	Based on 2008 data (1 year)	Based on 2006-2008 data (3 years)	Based on 2005-2008 data (4 years)
NIFTY value (Average of the 1000 runs)	3022.47	3033.15	3032.18
Standard deviation of the runs	85.29	57.83	63.86
10 day standard deviation	269.72	182.89	201.93
VAR at 1% level of significance	2394.02	2607.02	2561.69
VAR at 5% level of significance	2577.43	2731.38	2699.00

Conclusion

We find that the VAR level is not breached in any of the three methods, which would go to indicate that the VAR accurately represents a risk measure. However, there will be no meaning in having a risk measure which is too conservative. This is what the above methods are indicating in respect of the NIFTY figures. The challenge before a portfolio fund would be to set the benchmark against a defined past. Since markets are periodically very volatile and that is what the VAR measure seeks to guard against, one would imagine that taking a very volatile period as the basis would serve the purpose of safeguarding against risk. However, as given in the literature survey, it is not always the case and a broader period with several ups and downs could sometimes be a better indicator.

Another objective of the paper was to demonstrate the practical application of the three common methods. The Monte Carlo simulation method poses the greatest challenge in that one has to be confident about the type of distribution that the past holds and that which is expected in the future. Taking a normal distribution as the basis is a fair approximation as based on the extant literature.

A funds manager would do well to have all the methods analyzed, so that more conservatism is achieved. In these days when most funds are facing the challenge of improving, returns marginally against risking risk, the Monte Carlo method offers the best choice.

Key Words: Value at Risk, simulation, Monte Carlo simulation.

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Effectiveness on Profitability: Working Capital Management

Shishir Pandey and Vikas Kumar Jaiswal

Abstract

For a successful working of a business organization fixed and current assets play a vital role? Management of working capital is essential as it has direct impact on profitability and liquidity. An attempt has been made in this paper to study the working capital components and impact of working capital management on profitability of NALCO. The paper also makes an attempt to study the correlation between liquidity and profitability (PBT) of NALCO, the study is based on secondary data collected from annual reports of NALCO for the study period 1995 to 2008. Ratio analysis and percentage method and co-efficient of correlation have been used to analyze the data. Multiple regressions were used to check the significant impact on the profitability of NALCO.

A successful commercial organization needs two types of assets, viz., fixed assets: land, building, plant, machinery, furniture etc. These are not purchased for the purpose of sale but for the purpose of earning profit for many years and the second is current assets i.e. raw materials, work–in–progress, finished goods, sundry debtors, bills receivables, cash, bank balance etc. These assets are purchased for the purpose of production and sales, like raw material into semi-finished products, semi-finished products into finished products, finished products into debtors and debtors transferred into cash or bills receivables.

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The fixed assets are used in increasing production of an organization and current assets are used in using the more fixed assets and day to day working. The management of this working capital is known as working capital management. The term working capital refers to the amount of capital which is readily available to an organization. Management of working capital deals with the problems that arise in managing the current assets, the current liabilities and inter – relationship that exists between them. It should neither be inadequate nor excessive.

Working capital is an important part of finance having a decisive influence on the liquidity, which is regarded as the lifeblood of a business, plays a pivotal role in keeping the wheels of a business. Working capital management has always been a fascinating subject from the academic point of view and it must be admitted that in the real world situation also, efficiency with which working capital is managed in a concern is of great significance for its overall well being – its growth and decline.

Objective of the Study

In this study an attempt has been made to analyze the size and composition of working capital and whether such an investment has increased or declined over a period of time. After determining the requirements of current assets, one of the important tasks of the financial manager is to select an assortment of appropriate sources of finance for the current assets. Normally, the surplus of current assets to current liabilities should be financed by long–term sources. Precisely it is not possible to find out which long term source has been used to finance current assets, but it can be examined as to what proportion of current assets has been financed by long–term funds. Therefore, an attempt has been made in this regard.

In working capital analysis, the direction of change over a period of time is of crucial importance. Not only that, analysis of working capital trends provides a base to judge whether the practice and prevailing policy of the management with regard to working capital is good enough or an improvement is to be made in managing the working capital funds. Hence in this study, an attempt is made about the trend of the working capital management of the selected enterprise. In addition, to have higher profitability, the firms may sacrifice solvency and maintained a relatively low level of current assets. When the firms do so, their profitability will improve as less funds are tied up in the idle current assets, but their solvency will be threatened. Hence, an attempt is made to study the association of profitability with the working capital ratios.

With this end in view, an effort has been made in this article to make an in depth study NALCO, in respect of its performance and its working capital management. The findings of this study not only throw light on technical weakness in the managerial activities of the companies, but may also help scholars and researchers to develop new ideas, techniques and methods in respect of the management of working capital.

Objectives of the Study

This study focuses on the working capital management and profitability. It examines the interrelationship between profitability and liquidity.

Collection of Data and Methodology

This study is based on secondary data. The data required for this study have been extracted from the annual reports of NALCO. The study covered a period of fourteen years starting from 1995–1996 to 2007– 2008. The study covers mainly the following aspects of working capital analysis (i) Component of Working Capital, (ii) Financing of Working Capital, (iii) Trends of Working Capital and (iv) Working Capital Impact on Profitability. Statistical techniques namely co–efficient of correlation and multiple regressions are used for analyzing the data.

In this study, for the purpose of establishing definite relationships between working capital ratios and profitability ratio, correlation analysis has been applied. It implies interdependence of the set of variables. Further, in order to identify the influence of profitability, a linear multiple regression models were used. In the analysis, working capital ratios viz. CR. LR. WTR, ITR, RTR and WC/TA are taken as the independent variables Profit before Tax (PBT) to total assets ratios are used as dependent variable.

The used multiple regression equation is:

$$PBT/TA = a + b\text{-}_1\, CR + b_2\, LR + b_3\, WTR + b_4\, ITR + b_5\, RTR + b_6\, TC \text{ in } S + b_7\, WC/TA + e$$

Where, $a_,\ b_{1,}\ b_{2,}\ b_{3,}\ b_{4,}\ b_{5,}\ b_6$ and b_7 are parameters to be estimated.

Analysis of the Findings of the Study

Working Capital Analysis

Table 1 shows that overall gross working capital has increased from ₹10494.39 million in 1998-99 to 50413.30 million in 2007-08 which was also highest in the 10 years period. Gross working capital also includes cash, which was merely 2.56 percent of gross working capital in the year 1998-99 had increased to 69.75 percent in the year 2007-08. This shows that cash had become one of the major components in gross working capital.

As far as debtors are concerned it held that 31.46 percent share in 1998-99 which gradually decreased to 1.20 percent in the year 2007-08, with the all time low at 341.30 million in the year 2006-07. Overall inventory had an average of 33.78 percent share in gross working capital. Loans and advances was the third biggest contributor to gross working capital with its average share of 18.96 percent.

Taking total current liabilities, we see that it was all time high in the year 2008 with ₹ 15404.80 million. In NALCO total current liabilities is composed of current liabilities and provision. Current liabilities had an average share of 66.73 percent and provisions had an average share of 33.27 percent. The variation of contribution of current liabilities had been ranging from 54.72 percent to 85.56 percent. This shows increasing trend of current liabilities in total current liabilities.

Table - 1: Structure of Working Capital in NALCO
(₹ In Millions)

Years	Inventory	Debtors	Cash	Other C. A.	Loans & Advances	Gross W. C.
1999	4433.66 (42.25)	3301.71 (31.46)	220.52 (2.10)	268.23 (2.56)	2270.27 (21.63)	10494.39 (100)
2000	4402.40 (43.54)	3134.80 (31.01)	40.70 (0.40)	252.20 (2.49)	2280.00 (22.55)	10110.10 (100)
2001	4072.00 (38.85)	2630.70 (25.10)	660.00 (6.30)	498.80 (4.76)	2620.90 (25.00)	10482.40 (100)
2002	4843.20 (42.54)	2578.30 (22.65)	1142.30 (10.03)	415.40 (3.65)	2405.30 (21.13)	11384.50 (100)
2003	4892.50 (48.61)	1018.30 (10.12)	495.60 (4.92)	898.00 (8.92)	2760.60 (27.43)	10065.00 (100)
2004	4804.80 (48.51)	1022.40 (10.32)	983.60 (9.93)	865.10 (8.73)	2229.20 (22.51)	9905.10 (100)
2005	5290.60 (29.21)	928.10 (5.12)	7552.10 (41.70)	820.10 (4.53)	3519.50 (19.43)	18110.40 (100)
2006	5915.80 (17.94)	294.20 (0.89)	21937.10 (66.52)	1186.20 (3.60)	3645.50 (11.05)	32978.80 (100)
2007	6349.60 (12.77)	341.30 (0.69)	36865.30 (74.11)	2120.40 (4.26)	4064.20 (8.17)	49740.80 (100)
2008	6866.50 (13.62)	606.50 (1.20)	35164.60 (69.75)	2364.70 (4.69)	5411.00 (10.73)	50413.30 (100)
Avearage	5187.11 (33.78)	1585.63 (13.86)	10506.18 (28.58)	968.91 (4.82)	3120.65 (18.96)	21368.48 (100)

Growth (Times)	Current Liabilities	Provisions	Total Current Liabilities	Net W. C.	Growth (Times)
-0.32	2465.28 (59.49)	1679.05 (40.51)	4144.32 (100)	6350.07	-0.47
-0.04	3292.20 (66.78)	1638.00 (33.22)	4930.20 (100)	5179.90	-0.18
0.04	5076.60 (63.06)	2973.50 (36.94)	8050.10 (100)	2432.30	-0.53
0.09	4442.40 (61.77)	2749.60 (38.23)	7192.00 (100)	4192.50	0.72
-0.12	5535.90 (54.72)	4580.10 (45.28)	10116.00 (100)	-51.00	-1.01
-0.02	5478.80 (63.39)	3164.00 (36.61)	8642.80 (100)	1262.30	25.75
0.83	6162.50 (76.42)	1901.40 (23.58)	8063.90 (100)	10046.50	6.96
0.82	6073.30 (64.60)	3328.20 (35.40)	9401.50 (100)	23577.30	1.35
0.51	8720.20 (71.56)	3465.90 (28.44)	12186.10 (100)	37554.70	0.59
0.01	13183.10 (85.56)	2225.70 (14.44)	15408.80 (100)	35004.50	-0.07
0.18	6043.03 (66.73)	2770.54 (33.27)	8813.57 (100)	12554.91	3.31

Financing of working Capital

Table - 2: Financing of working Capital
(₹ In millions)

Year	Gross Working Capital	Sources of Working Capital		Total Long Term fund	% of L.T. used for working capital
		L.T	S.T		
1999	10494.39	6350.07	4144.32	34790.641	18.25
2000	10110.1	5179.9	4930.2	38640.4	13.41
2001	10482.4	2432.3	8050.1	43739	5.56
2002	11384.5	4192.5	7192	47886.9	8.76
2003	10065	0	10116	52076.5	0
2004	9905.1	1262.3	8642.8	50210.5	2.51
2005	18110.4	10046.5	8063.9	53502.6	18.78
2006	32978.8	23577.3	9401.5	65344	36.08
2007	49740.8	37554.7	12186.1	83079.6	45.20
2008	50413.3	35004.5	15408.8	94813.1	36.92

Net working capital had an average of ₹ 12555.91 million. Overall it had positive except in the year 2002-03 in which it was ₹-51 million. This was due to increase in Total current liabilities as compared to Gross working capital. Net working capital was the highest in the year 2006-07 with ₹ 37554.70 million.

Financing of Working Capital

To meet the financial requirement, an enterprise has various sources to finance its current assets like short term financing and long term financing. From the table 2 it is revealed that long term financing is contributing between zeros to 45.20 percent. Between the years 2001 to 2004 its share was below 10 percent but in year 2006-07 it reached to the highest point i.e., contributing almost 45 percent. The trend of the last five year shows that this source of financing is gaining importance.

Working Capital Trend

Improving working capital management; whether it is effective or not and to make a judgment of policies or practices in an enterprise trend of working capital, provides a good base for judgments. In table 3 trend of working capital of NALCO is shown. It is reveled from the table that NALCO working capital had a fluctuating trend. In the initial years of study period it had decreasing trend but after 2003 the net working capital increased sharply from ₹-51 million in 2003 to ₹ 37554.5 million in 2007. The linear least square trend values of working capital in NALCO are shown in table: 3. The difference between actual and trend values were negative from the years 2001 to 2005 while they were positive in the remaining years. The yearly increase in working capital comes to ₹12554 million. Figure 1 shows the original and the trend value in which net working capital reached all time high to ₹ 37554.7 million in the year 2007 and was lowest in the year 2003 the reason being excess current liabilities than current assets.

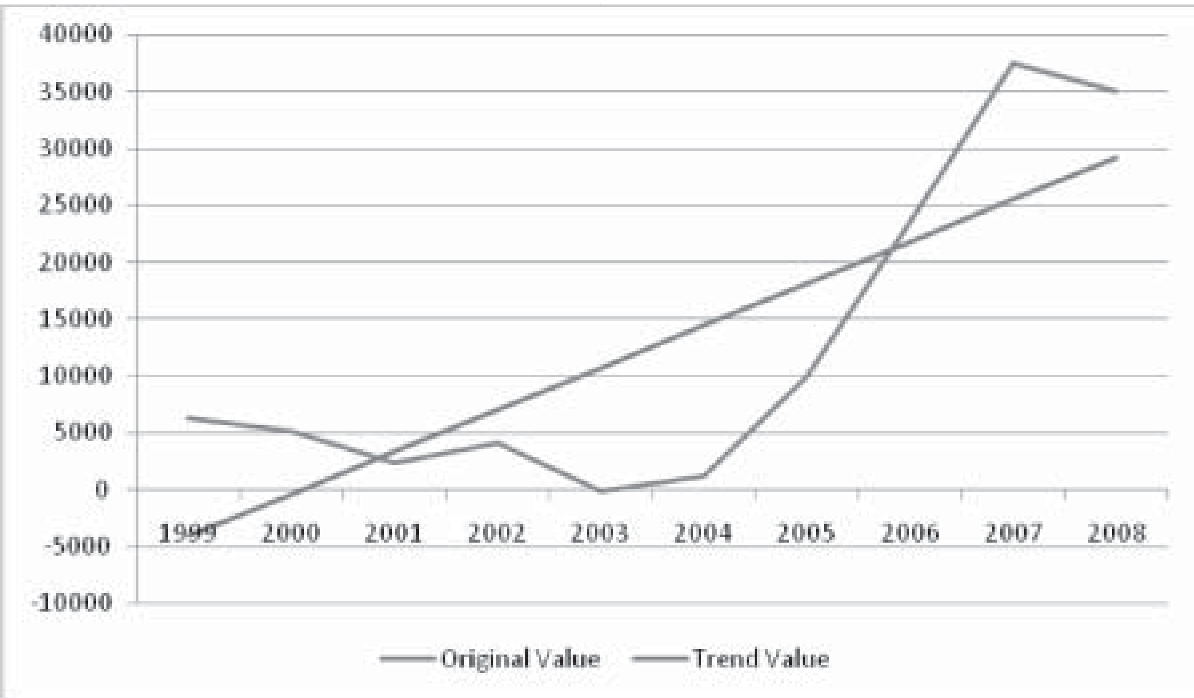
Effectiveness of Working Capital on Profitability

The average cash turnover ratio of 3.76 shows that company has adequate cash balance in company. Inventory turnover ratio shows a good rotation of inventory in the company. In this sequence company improved its conversion of receivables so quickly in the last five years, which shows that company receives its cash from its debtors so quickly. In case of working capital turnover ratio, the result shows that company large amount of short time liabilities against the current assets which affects the working capital turnover ratio at low level. The current ratio is fluctuating during the study period and average shows the ideal position but liquid ratio up to

Table - 3: Working Capital Trend
₹ In Million

Years	Original Working Capital	Trend Value
1999	6350.07	-4057.28
2000	5179.9	-365.684
2001	2432.3	3325.915
2002	4192.5	7017.514
2003	-51	10709.11
2004	1262.3	14400.71
2005	10046.5	18092.31
2006	23577.3	21783.91
2007	37554.7	25475.51
2008	35004.5	29167.11

Source: Computed from NALCO Annual Report



Effectiveness of Working Capital on Profitability

Year	CTR	ITR	RTR	WTR	CR	LR	WC/TA	RCE
1999	3.71	3.59	4.56	2.37	2.53	0.58	0.16	8.24
2000	4.31	4.85	6.83	4.14	2.05	0.56	0.12	18.47
2001	4.79	5.68	9.15	9.89	1.30	0.61	0.05	27.55
2002	4.84	10.47	9.25	5.69	1.58	0.57	0.08	12.37
2003	5.61	10.19	26.9	-537.19	0.99	0.51	0.00	14.05
2004	5.33	6.89	32.66	26.45	1.15	0.51	0.02	18.30
2005	3.04	8.80	47.84	4.42	2.25	0.71	0.18	24.01
2006	2.07	9.44	179.72	2.24	3.51	0.82	0.35	24.79
2007	1.79	10.62	190.87	1.73	4.08	0.87	0.42	31.89
2008	2.07	8.28	90.26	1.56	3.27	0.86	0.34	23.21
Average	3.76	7.88	59.80	-47.87	2.27	0.66	0.17	20.29

CTR-cash turnover ratio, ITR- inventory turnover ratio, RTR-Receivables turnover ratio, WTR- working capital turnover ratio, CR- current ratio, LR-Liquid Ratio, WC to TA- working capital to total assets, RCE-Return on capital employed.

the standard position which is always below from the ideal ratio i.e. 1:1. In the total assets, working capital keeps an adequate portion. Return on capital employed depicts the increasing trend, that is very good sign for company to show the efficient use of capital in raising the profit.

Multiple Regression Analysis

In the table 5, the impact of working capital ratios on ROCE of NALCO are shown with the help of multiple regression analysis. The table shows that the impact of different working capital ratios is statistically insignificant at five percent level as seen from the values of the regression co–efficient. For a unit increase in cash turnover ratio, ROCE increased by 1.104 units, the coefficient of correlation between these two variables shows moderate negative correlation of -0.57. Similarly, one unit increase in inventory turnover ratio would decrease the profitability by 0.27 units; the correlation of these two variables shows low level positive correlation of 0.31. The co – efficient of regression between the profitability ratio and receivables turnover ratio is computed as 0.934 which implies that one unit increase in receivables turnover ratio would increases the profitability ratio by 0.934 unit and positive moderate correlated of 0.67. Change of one unit in working capital turnover ratio increases 0.232 units in profitability of Nalco. One unit change in current ratio and liquid ratio increases the profitability by 2.436 and 3.278 units respectively. It is also inferred from the table that one unit increase in working capital to total assets ratio would decrease the profitability ratio by 4.708 units.

(Constant)	Beta Co-efficient	t-Value	P-Value	Correlations
CTR	1.104	-0.615	0.601	-0.57
ITR	-0.266	0.471	0.684	0.31
RTR	0.934	-0.485	0.675	0.67
WTR	0.232	1.119	0.379	0.29
CR	2.436	0.574	0.624	0.50
LR	3.278	0.348	0.761	0.70
WC/TA	-4.708	1.000	0.423	0.57
	Dependent Variable:		ROCE	
	Standard error of the estimate		6.76	
	R Square		0.81	

The co efficient of correlation between liquid ratio and ROCE is highest positive correlation among all with 0.70.

The independent variables explain 81 percent of the variations in the profitability of the NALCO.

Conclusion

The current assets of NALCO have witnessed fluctuation over the past years which were 4 times (approx.) more in 2008 in comparison to that of 1999. Inventory, debtors and loans and advances played main role in this increase. Our study also shows that the contribution of long term source in working capital is below 46 percent in all the study period. It has also been found that during the study period, the working capital of NALCO has registered increasing trend in from 2003. And regression results of the study show that the different working capital ratios have statistically insignificant impact on the ROCE of NALCO.

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Predicting Solvency: Indian IT Companies

Arun R. and Kasilingam R.

Abstract

Solvency prediction of the company plays a vital role in the management. Z-Score model is based on multiple discriminant analysis (MDA) to predict the financial distress state of the companies. In the present economic recession scenario, IT companies seem to get affected very badly. It is a new attempt to use Z-score model for IT companies to test their solvency. 17 IT companies in India are taken for the study. It is found that the EBIT (Earnings before Interest and Taxes) plays an important role in contributing the value of Z-Score.


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The study is carried out to predict the solvency of IT Companies in India based on the financial statements like balance sheets, profit and loss accounts filed by the respective IT companies with Registrar of Companies and National Stock Exchange. The study to predict the solvency is carried out based on Z score model which was found by Edward I. Altman, a financial economist and Professor at the Leonard N. Stern School of Business at New York University.

Solvency is defined as the ability of a company to meet its long term fixed expenses and to accomplish long term expansion and growth. The better a company's solvency, the better it is financially. When a company is insolvent, it means that it can no longer operate and is undergoing bankruptcy.

Bankruptcy is a business failure that can be defined as "the condition in which a business cannot meet its debt obligations."

During the period of recession, it is usual that numerous companies fall into bankruptcy. Hence it is mandatory to know the solvency status of the companies in our country. As the IT revolution is taking place centered at India, we have to have a close watch about such IT Companies by knowing their solvency status.

It is possible to reduce the rate of bankruptcy in companies through the use of a methodology that identifies and controls the variables that induce financial failure. There are several methods to find out the solvency status of companies. An eminent method for such prediction is Altman's Z score formula for predicting bankruptcy.

The Z score is a multivariate formula that measures the financial health of a company and predicts the probability of bankruptcy.

$Z = 0.012 X_1 + 0.014 X_2 + 0.033 X_3 + 0.006 X_4 + 0.999 X_5$

Zones of Discrimination:

$Z > 2.99$ -"Safe" Zone

$1.8 < Z < 2.99$ -"Grey" Zone

$Z < 1.80$ -"Distress" Zone

The Z-score combines five common business ratios using a weighting system calculated by Altman to determine the likelihood of bankruptcy.

The variables X_1, X_2, X_3, X_4, X_5 represent the working capital (currency assets- current liabilities)/total assets, retained earnings/total assets, earnings before interest and taxes/total assets, market value of equity/book value of total liabilities, and sales/total assets respectively.

1. The X1 Component of Z-score is defined as:

X1 = Working Capital to Total Asset Ratio

The ratio of working capital to total assets is the Z-score component, which is considered to be a reasonable predictor of deepening trouble for a company. A company which experiences repeated operating losses generally suffers a reduction in the working capital relative to its total assets.

2. The X2 Component of Z-score is defined as:

X2 = Retained Earnings / Total Assets

The ratio of Retained Earnings to Total Assets is a Z-score Component which provides information on the extent to which a company has been able to reinvest its earnings in itself. An older company must have time to accumulate earnings, so this measurement tends to create a positive bias towards older companies.

3. The X3 Component of Z-score is defined as:

X3 = earning before Interest and Tax (EBIT) / Total liabilities

This ratio adjusts a company's earnings for varying factors of income tax and makes adjustments for leveraging due to borrowings. These adjustments allow more effective measurements of the company's utilization of its assets.

4. The X4 Component of Z-score is defined as:

X4 = market value of equity/book value of total liabilities.

This ratio gives an indication of how much a company's assets can decline in value before debts may exceed assets. Equity consists of the market value of all outstanding, common and preferred stock. For a private company, the book value of equity is used for this ratio. This depends on the assumption that a private company records its assets at market value.

5. The X5 Component of Z-score is defined as:

X5 = sales/total assets.

This ratio measures the ability of the company's assets to generate sales.

The above formula holds good for manufacturing companies with public holdings. For manufacturing companies of private firms (unlisted companies) Z score formula arrived by Edward I. Altman is as follows:

$$Z' = 0.00717X_1 + 0.00847X_2 + 0.03107X_3 + 0.00420X_4 + 0.998X_5$$

In the above formula, X4 = Book Value of Equity / Total Liabilities.

Zones of Discrimination:

Z' > 2.9 -"Safe" Zone

1.23 < Z' < 2. 9 -"Grey" Zone

Z' < 1.23 -"Distress" Zone

Z score formula for non manufacturing companies is as follows:

$$Z = 0.0656X1 + 0.0326X2 + 0.0672X3 + 0.0105X4$$

In the above formula, X4 = Book Value of Equity / Total Liabilities Zones of Discrimination:

Z > 2.6 -"Safe" Zone

1.1 < Z < 2. 6 -"Grey" Zone

Z < 1.1 -"Distress" Zone

In our study, IT Companies are considered as Non manufacturing companies as per Indian Income Tax Laws. Hence the Z score formula for Non manufacturing companies is taken for evaluation of Z scores of IT Companies.

Objectives

Primary Objective

The primary objective of the research is to predict the Solvency status of the IT companies in India.

Secondary Objectives

To highlight the measures to be taken by the Management as well as its stakeholders and employees, financial institutions, Government authorities, creditors, public etc.

Scope

A study restricted to top 17 software companies and one company which is almost sunk, in India was made using the Z score technique. The financial statements for the years from 2003 to 2009 are being considered for top sixteen IT Companies. Also a company by name MAARS Software International Ltd which is almost under bankrupt is also studied for its solvency status. For some companies, the financial statements are available from the year 2007 only.

For predicting the solvency of bank using Altman Z-score model totally four factors are taken with seven variables. The data collected is purely secondary. The data was obtained from PROWESS (a corporate database developed by CMIE), NSE and Rediff websites.

Research Methodology

The Research Design followed for the present study was **Descriptive Research.**

Data Collection Method

The study is carried out with the Secondary Data. Secondary data are the data which is collected from Prowess (a corporate database developed by CMIE). The data used for the study was collected from the past performance of the IT companies in their balance sheets. Also some data were taken from NSE website and rediff website.

Sampling Size

The size of the sample needed can be determined from the amount of reliability and precision in the result, the total sample size was 17 IT companies.

Duration of Study

The period of this study ranges from 2003 to 2009, i.e., for seven years for all considered IT companies. For some companies data are unavailable for few financial years.

Research Tools

Research tools are statistical techniques used for data analysis and to arrive at certain conclusions. The Tools used for the project are:

- **Correlation**

In probability theory and statistics, correlation, (often measured as a correlation coefficient), indicates the degree and direction of a linear relationship between two random variables. The best known is the Pearson product-moment correlation coefficient, which is obtained by dividing the covariance of the two variables by the product of their standard deviations. SPSS package was used to compute correlation between the variables X1, X2, X3 and X4.

Ø **Regression**

Regression measures the nature and extent of average relationship between two or more variables in terms of the original units of the data. The dependent variable in the regression equation is modeled as a function of the independent variables, corresponding parameters ("constants"), and an *error term*. The error term is treated as a *random variable*. It represents unexplained variation in the dependent variable. The parameters are estimated so as to give a "best fit" of the data. Most commonly the best fit is evaluated by using the least squares method, but other criteria have also been used. SPSS package was used to compute the regression between the independent variables X1, X2, X3, X4 and dependent variable Z.

Data Analysis and Interpretation

Altman's Z Score Model

For Altman Z-score model following tools have been used for the purpose of analysis.

$Z =$ 0.0656 X1 + 0.0326 X2 + 0.0672 X3 + 0.0105 X4

$X_1 =$ Working capital (currency assets- current liabilities) /total assets

X2 = Retained earnings/total assets

X3 = Earnings before interest and taxes/total assets

X4 = Book Value of Equity / Total Liabilities

The interpretation is done based on the model derived by Edward I. Altman by calculating Z score. The Zones are identified as follows:

$Z > 2.6$	Safe Zone
$1.1 < Z < 2.6$	Grey Zone
$Z < 1.1$	Distress Zone

For all the charts of the companies, Fig. (i) & (ii) X-axis represents:

Year 1 – As on 31-03-2003

Year 2 – As on 31-03-2004

Year 3 – As on 31-03-2005

Year 4 – As on 31-03-2006

Year 5 – As on 31-03-2007

Year 6 – As on 31-03-2008

Year 7 – As on 31-03-2009

As mean Z-Score for TATA CONSULTANCY SERVICES LTD exceeds 2.6, the company is in safe zone. The Solvency level is high. The current asset on an average is almost 45 percent higher than the current liability in all the years resulting in sufficient working capital. The reserve and surplus of the company is very high. The asset base of the company is also gradually increasing year after year. These factors have been resulted the soundness in solvency status of the company. As the optimum level of solvency is reached, the company must concentrate on EBIT than building more asset value. But the downward trend of Z score can be taken as alarming effect due to economical recession.

When comparing the contribution of other variables, the contribution of X3 (EBIT/TOTAL ASSETS) is enormous, high and significant.

The downward trend in EBIT contribution and Z score level is somewhat alarming and earnings must be increased by the company. The Z score is at peak of 5.3 in the year 2005 whereas it starts decreasing slowly. Hence it needs better attention to increase the solvency level even though the company is in the safe zone.

As the calculations are of the same method for other companies, the financial details are furnished in Appendices for all other IT companies for reference.

As Z value for Infosys Technologies Ltd is almost maintaining constantly 2.6, the company seems to be in grey zone. But, on an average, the company maintains its reserve and Surplus as 79 percent of its total asset value. The working capital has

Tata Consultancy Services Ltd.
Computation of Z-Score for Tata Consultancy Services Ltd.

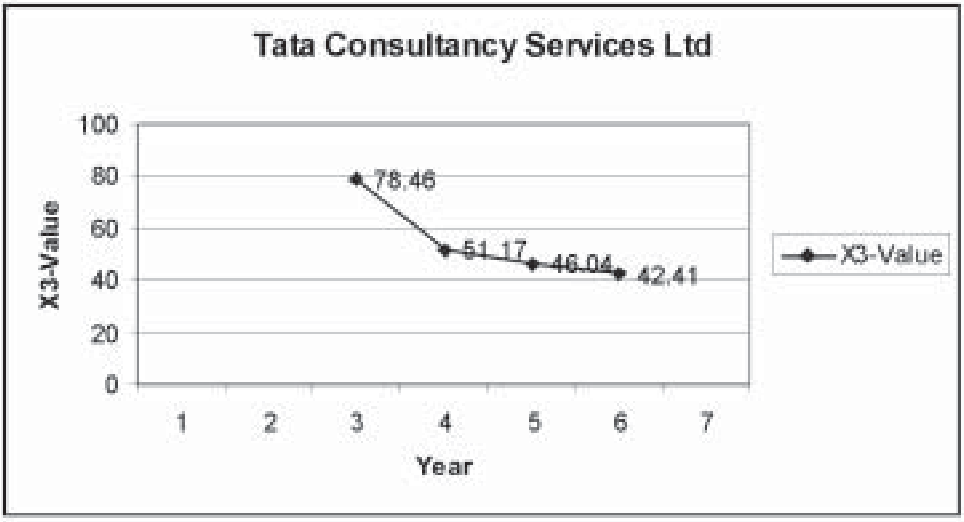
Variables / Year	2005	2006	2007	2008
Current Asset	2148.56	3375.71	4743.44	6292.16
Current Liability	1241.86	1720.68	2544.55	3591.62
Working Capital	906.70	1655.03	2198.89	2700.54
Retained earnings	3273.04	5560.40	7961.13	10806.95
Book value of equity	3321.05	5609.33	8058.99	11004.81
Total assets	4752.80	7430.20	10714.89	14736.06
Book value of total liabilities	4752.80	7430.20	10714.89	14736.06
X1	0.1908	0.2227	0.2052	0.1833
X2	0.6887	0.7484	0.7430	0.7334
X3	78.4600	51.1700	46.0400	42.4100
X4	0.6988	0.7549	0.7521	0.7468
Value of ‘Z’	5.3148	3.4856	3.1395	2.8937

Significance of the variables for Tata Consultancy Services Ltd.

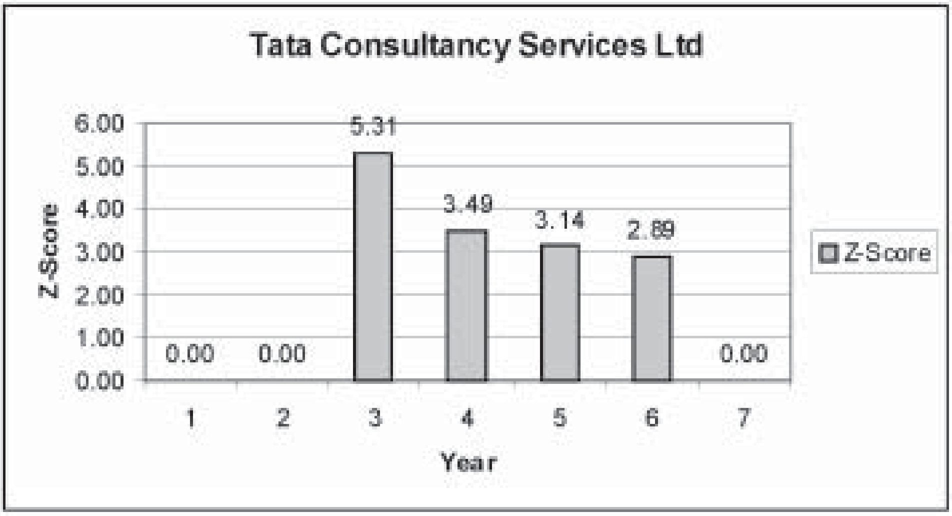
Variables / Year	2005	2006	2007	2008
X1 = 0	0.0000	0.0000	0.0000	0.0000
X2	0.6887	0.7484	0.7430	0.7334
X3	78.4600	51.1700	46.0400	42.4100
X4	0.6988	0.7549	0.7521	0.7468
Value of ‘Z’	5.3023	3.4709	3.1260	2.8817
X1	0.1908	0.2227	0.2052	0.1833
X2 = 0	0.0000	0.0000	0.0000	0.0000
X3	78.4600	51.1700	46.0400	42.4100
X4	0.6988	0.7549	0.7521	0.7468
Value of ‘Z’	5.2924	3.4612	3.1152	2.8698
X1	0.1908	0.2227	0.2052	0.1833
X2	0.6887	0.7484	0.7430	0.7334
X3 = 0	0.0000	0.0000	0.0000	0.0000
X4	0.6988	0.7549	0.7521	0.7468
Value of ‘Z’	0.0423	0.0469	0.0456	0.0438
X1	0.1908	0.2227	0.2052	0.1833
X2	0.6887	0.7484	0.7430	0.7334
X3	78.4600	51.1700	46.0400	42.4100
X4 = 0	0.0000	0.0000	0.0000	0.0000
Value of ‘Z’	5.3075	3.4776	3.1316	2.8859

When comparing the contribution of other variables, the contribution of X3 (EBIT/TOTAL ASSETS) is enormous, high and significant.

Graphical Representation for variation of X3 for Tata Consultancy Services Ltd.



Graphical Representation of Z-Score for Tata Consultancy Services Ltd.

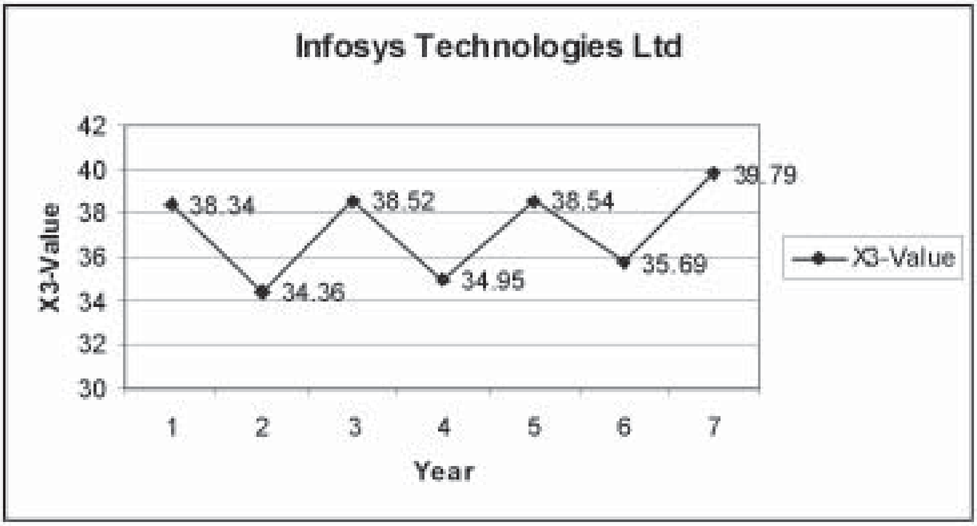


Infosys Technologies Ltd.
Computation of Z-Score for Infosys Technologies Ltd.

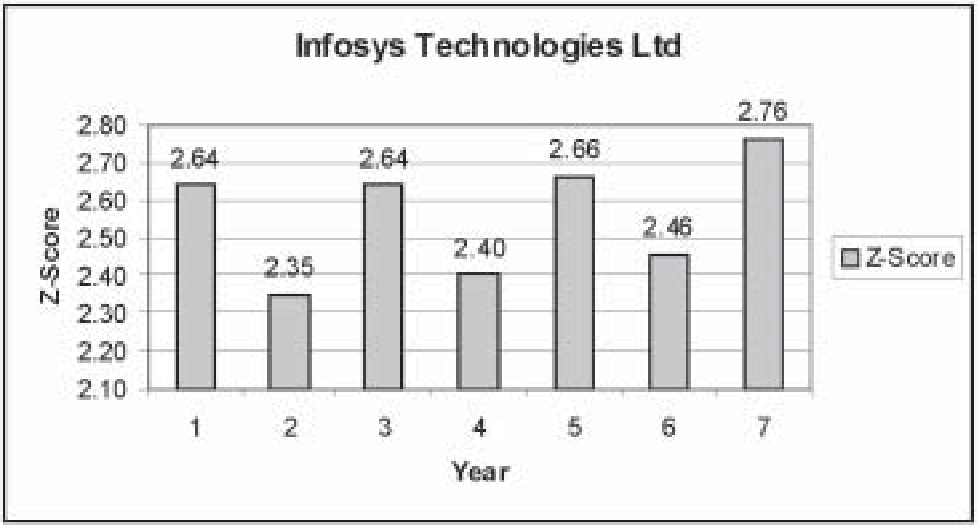
Variables / Year	2003	2004	2005	2006	2007	2008	2009
X1	0.4377	0.1724	0.2992	0.3498	0.5272	0.4005	0.6957
X2	0.7934	0.6444	0.7752	0.7416	0.8375	0.7667	0.9839
X3	38.3400	34.3600	38.5200	34.9500	38.5400	35.6900	39.7900

X4	0.8027	0.6511	0.7957	0.7957	0.8595	0.7833	1.0000
Value of 'Z'	2.6395	2.3481	2.6418	2.4037	2.6608	2.4579	2.7621

Graphical Representation for variation of X3 for Infosys Technologies Ltd.



Graphical Representation for variation of Z-Score for Infosys Technologies Ltd.



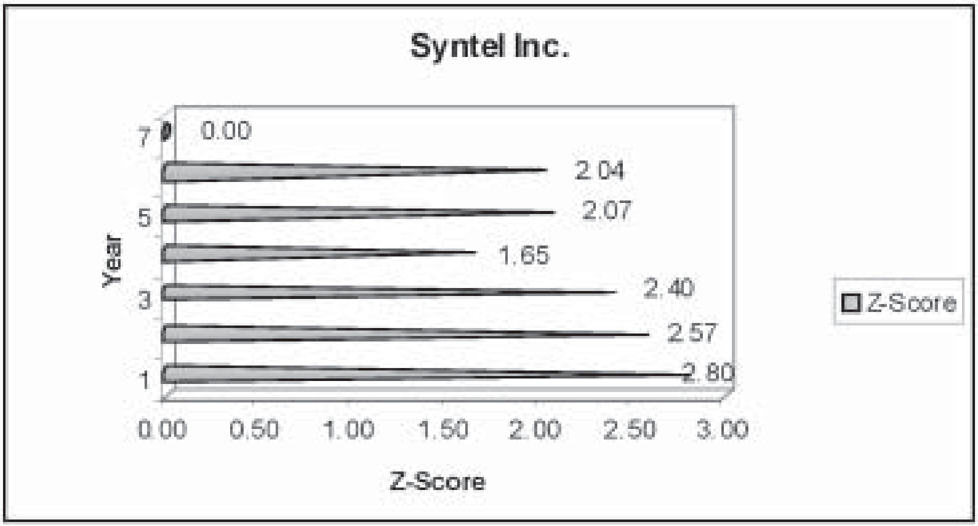
been gradually increased every year. The EBIT must be increased by suitable efforts. The Solvency level is medium. The company has to improve its solvency level.

This saw tooth pattern is always dangerous; the earnings must be improved in Infosys Technologies Ltd. However the coefficient of variance of mean Z is less, hence the company need not worry much.

Computation of Z-Score for Syntel Inc.

Variables / Year	2003	2004	2005	2006	2007	2008
X1	0.5580	0.7729	0.6132	0.6551	0.5700	0.5642
X2	0.9373	0.9238	0.9421	0.9110	0.8613	0.8553
X3	40.5900	36.9100	34.5000	23.3500	29.6500	29.2100
X4	0.9392	0.9252	0.9431	0.9201	0.8687	0.8669
Value of 'Z'	2.8047	2.5709	2.3992	1.6515	2.0671	2.0369

Graphical Representation for variation of Z-Score for Syntel Inc.



Computation of Z-Score for Tech Mahindra Ltd.

Variables / Year	2003	2004	2005	2006	2007	2008	2009
X1	0.4084	0.3707	0.2908	0.1036	0.1817	0.2605	0.4164
X2	0.7456	0.7392	0.7057	0.5737	0.4347	0.4938	0.9353
X3	45.2600	21.6900	14.0300	28.9700	12.2000	21.1500	61.6300
X4	0.7877	0.7753	0.7367	0.5944	0.5044	0.5480	0.5370
Value of 'Z'	3.1008	1.5141	0.9926	1.9785	0.8512	1.4602	4.2050

Syntel Inc.

As mean Z value for Syntel Inc is in Grey Zone, the Solvency level is medium. The company has to improve its solvency level. The X3 (EBIT) contribution is gradually declining and has to be noted. The company has to increase its Earnings to push the solvency level in Safe zone. However the retained earnings are almost 80 percent – 90 percent of the total assets. But the working capital is highly satisfactory for liquidity level of the company.

The solvency level of the company is medium. The decreasing trend of Z score is not a good sign. The company has to take utmost care in increasing its earnings enormously.

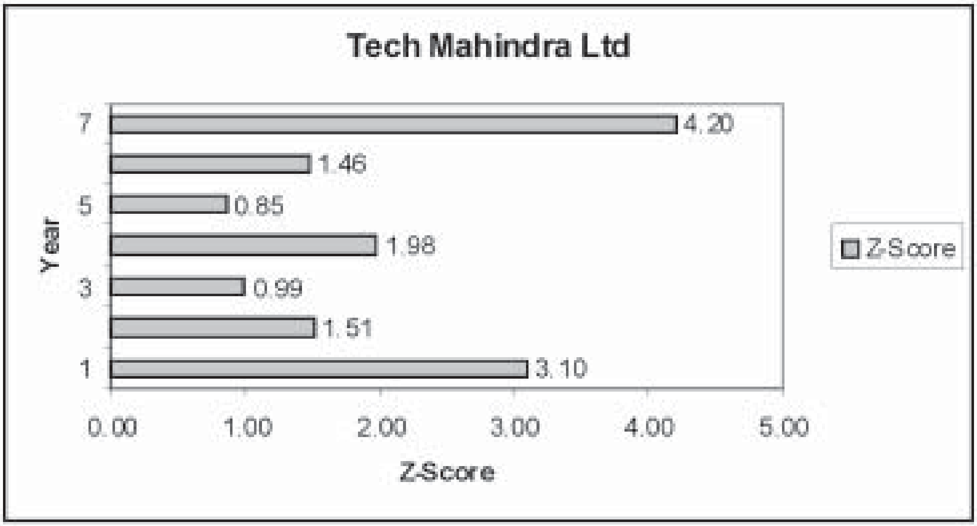
Tech Mahindra Ltd.

As Z value for Tech Mahindra Ltd has drastically improved to 4.2, the company is in safe zone. The Solvency level is extremely good. It is really unimaginable how a company during the recession period is making such an outstanding performance financially! It is to be noted that the working capital and reserve and surplus are increased drastically whereas the book value of equity gets reduced! Probably the abundant allocation of funds to reserve and surplus would have been helpful to absorb Satyam computers services Ltd by this company!

The solvency status of the company is extremely good even in the recession period. However the alternating trend of Z score for the company has to be watched properly. The high range fluctuation may cause instability of solvency level for the company.

As above, Z score was evaluated for other 13 companies and a data sheet is attached in the Appendix.

Graphical Representation for variation of Z-Score Tech Mahindra Ltd.



Deliverables

1. From the computed values of Z scores, the financial status of the company is classified as follows:

Z >2.6	Financially Safe Zone
1.1< Z <2.6	Financially Grey Zone
Z < 1.1	Financially Distress Zone

From the correlation table derived by using the variables in SPSS software package, the relationship between them is established.

From the regression analysis carried out using the independent variable Z score with other dependent variables X1, X2, X3 and X4, the extent/measure of the relationship between them is established.

Correlations

The below table shows the inter correlation of variables used in the Z-score model. In these Retained earnings are positively correlated with book value of equity as well as EBIT of the company.

Correlations
Inter Correlation of the variables X1, X2, X3 & X4
Correlations

		X1	X2	X3	X4
X1	Pearson Correlation	1	.068	.149	-.098
	Sig. (2-tailed)		.506	.146	.341
	N	97	97	97	97
X2	Pearson Correlation	.068	1	.363**	.700**
	Sig. (2-tailed)	.506		.000	.000
	N	97	97	97	97
X3	Pearson Correlation	.149	.363**	1	.055
	Sig. (2-tailed)	.146	.000		.595
	N	97	97	97	97
X4	Pearson Correlation	-.098	.700**	.055	1
	Sig. (2-tailed)	.341	.000	.595	
	N	97	97	97	97

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

Model Summary of Regression
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000[a]	.999	.999	.02547
2	1.000[b]	1.000	1.000	.01789
3	1.000[c]	1.000	1.000	.00844
4	1.000[d]	1.000	1.000	.00000

a. Predictors: (Constant), X3
b. Predictors: (Constant), X3, X2
c. Predictors: (Constant), X3, X2, X1
d. Predictors: (Constant), X3, X2, X1, X4

Working capital is negatively correlated book value of equity. And EBIT is highly correlated with retained earnings, moderately positively correlated with working capital, and book value of equity.

Regression

From the above table, we can write the regression equations and they can be written as follows:

As X3 i.e. EBIT to Total Asset is predominant in contributing to Z score, the regression equation may be Z= 0.050+0.068X3.

Similarly by looking at the above table, we can write the corresponding regression equations as follows: Z = 0.008+0.067X2+0.067X3

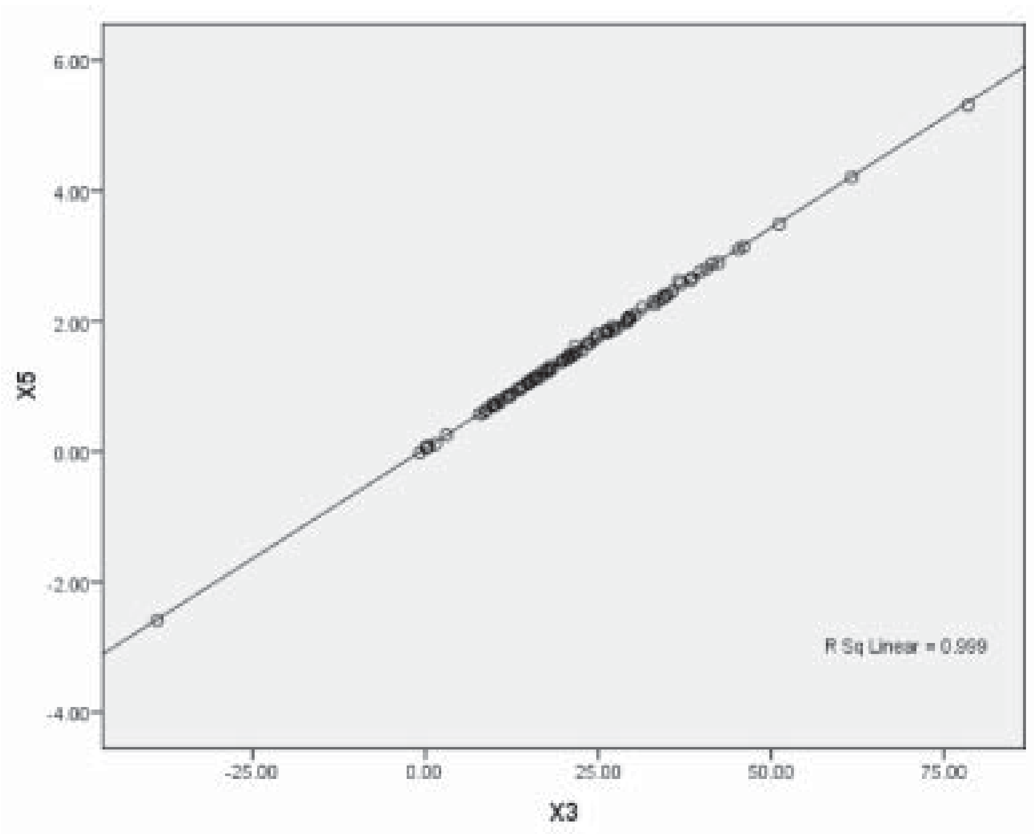
Z = -0.009+0.060X1+0.066X2+0.067X3

Z = -1.704+0.066X1+0.033X2+0.067X3+0.010X4

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.050	.005		10.543	.000
	X3	.068	.000	1.000	383.871	.000
2	(Constant)	.008	.005		1.593	.115
	X3	.067	.000	.993	505.601	.000
	X2	.067	.007	.019	9.931	.000
3	(Constant)	-.009	.003		-3.398	.001
	X3	.067	.000	.990	1.060E3	.000
	X2	.066	.003	.019	20.772	.000
	X1	.060	.003	.016	18.153	.000
4	(Constant)	-1.704E-10	.000		.	.
	X3	.067	.000	.993	.	.
	X2	.033	.000	.010	.	.
	X1	.066	.000	.017	.	.
	X4	.010	.000	.012	.	.

a. Dependent Variable: X5



Z Score Table based on Descending order of IT companies

Company Name	Z-Score Mean	Std. Deviation	Co-efficient of Variance
Tata Consultancy Services Ltd	3.708	1.098	29.612
Infosys Technologies Ltd	2.559	0.155	6.048
Syntel Inc.	2.255	0.417	18.497
Tech Mahindra Ltd	2.015	1.220	60.571
NIIT Technologies Ltd	1.952	0.545	27.942
Wipro Technologies Ltd	1.798	0.229	12.764
Prithvi Information Solutions Ltd	1.779	0.747	41.961
Satyam Computer Services Ltd	1.771	0.371	20.928
Mastek Ltd	1.759	0.706	40.142
Sonata Software Ltd	1.389	0.471	33.948
I-flex Solutions Ltd	1.342	0.287	21.422
Patni Computer Systems Ltd	1.125	0.282	25.021
HCL Technologies Ltd	1.125	0.409	36.397
Hexaware Technologies Ltd	0.976	0.612	62.758
Mphasis an EDS company	0.865	0.268	31.020
Polaris Software Lab Ltd	0.817	0.349	42.729
Maars Software International Ltd	-0.365	1.089	-298.268

An attempt is made to draw a regression chart Z and X3 as follows:

Regression between Z and X3

The regression chart clearly shows the Z value depends almost predominantly the variable X3 which is EBIT/total asset of the companies. Hence other variables lose their significance.

The above table clearly indicates the solvency status of IT Companies as follows:

The coefficient of variance of Z score is of the least positive value for Infosys Technologies comparing to any other company and hence it is a better company than any other IT company.

The coefficient of variance of Z score is the highest for Hexaware Technologies Ltd which is alarming even though the mean Z score is in Grey Zone, and not good for the financial health of the company.

Similarly Tech Mahindra Ltd is also having the second highest coefficient of variance of Z score which is not good for the financial health of the company.

The company, Tata Consultancy Services Ltd which is having the most top Z score of all the IT companies, is having the co-efficient of variance of 29.612. This means the inconsistency of the financial status even though the company is having the best solvency. The company has to take adequate measure for making the consistency in financial position.

Wipro Technologies Ltd, Syntel Inc, Satyam I-flex Solutions Ltd, Patni Computer Systems Ltd and NIIT Technologies Ltd are having moderate coefficient of variances and shows smooth Z score lines even though they have low Z scores and they are in Grey zone. It means that the financial operations of these companies are consistent.

Maars Software International Ltd is having the lowest coefficient of variance and the value is negative which indicates the total inconsistency of the financial status of the company which is almost bankrupt.

Conclusions

Summary of Findings

The Tata Consultancy Services Ltd is in top most position among all the IT companies in India with respect to solvency status. The downward trend in EBIT contribution and Z score level is somewhat alarming and earnings must be increased by the company.

Infosys Technologies Ltd is in safer Zone and every alternate year the Z score of the company is upwards and every other alternate year, Z score is little downwards.

Syntel Inc. is having its mean Z score is in Grey Zone; the solvency level of the company is medium. The company has to increase its Earnings to push the solvency level in Safe zone.

Tech Mahindra Ltd has a mean Z score in Grey Zone and moreover recently it has taken over Satyam computers services Ltd. The EBIT must be enormously increased by the company.

NIIT Technologies Ltd is having its mean score in Financially Grey Zone and the latest trend shows it is moving to financially distress Zone.

Wipro Technologies Ltd is having medium solvency. EBIT contribution is very much low in comparing to Reserve and Surplus which is abnormal. As the Z score is in grey Zone, there is something fishy with the above data.

As Z value for Prithvi Informations Solutions Ltd is very low, the company is in financially distress zone. The Solvency level is poor. The company has to take some urgent measures to avoid bankruptcy.

As Z value for Satyam computers Ltd is greater than 1.1 during the last financial year, the company is in Grey Zone. That is why, even in the latest corporate scandal of this company, it was absorbed by Tech Mahindra. The Solvency level is medium. The company has to improve its solvency level.

As Z value for Mastek Ltd has improved to 2.6, the company is just in Safe zone. The Solvency level is good. The working capital has to be improved. It is surprising to watch that the retained earnings is more than the total assets for this company!

As Z value for Sonata Software Ltd is less than 2.2, the company is in financially grey zone. The company has to improve its solvency level. The solvency level of the company is medium. But the upward trend of Z score for this company highlights the chances of entering into financially safe zone

I-flex Solutions Ltd: The solvency level of the company is very low. The downward trend of the Z score indicates the possibility of the bankruptcy of this company. Surprisingly the working capital is good for this company which is a good indication that there is a good chance for the improvement of the company.

Patni Computer Systems Ltd: The reduction in the working capital in 2008 shows an alarming signal. The Solvency just touches the medium level i.e .Grey Zone. The company has to improve its solvency level.

HCL Technologies Ltd: The Solvency level is medium or tending to become low. The company has to improve its solvency level. The reduction in EBIT is not sounding good which is pulling down the company into financially distress zone.

Hexaware Technologies Ltd: The solvency level is very poor. The company must take measures to improve to avoid its bankruptcy.

As Z value for Mphasis an EDS Company has improved by just crossing the distress zone and entering into grey zone. The Solvency level is medium.

The company has to improve its solvency level.

As Z value for Polaris Software Lab Ltd is always less than 1.1, the company is in distress zone. The Solvency level is poor. The company seems to march towards bankruptcy. Immediate attention is needed.

As Z value for Maars Software International Ltd is very very low, the company is in financial distress. It is almost bankrupt. As the EBIT does not at all exist for this company, the bankruptcy is unavoidable.

18.The contribution of X3 variable, that is the EBIT/Total Asset is predominant in Z score value.

19. The coefficient of variance of Z score is very less for Infosys Technologies and hence it is a better company than any others. The coefficient of variance of Z score is high for Tech Mahindra which is alarming and not good for the financial health of the company.

Suggestions and Recommendations

Options in Time of Financial Distress

Business firms can deal with financial distress, that is, when they are in a Z score of between 1.1 and 2.6, in several ways which may include:

Disposing of Real Property: A company may opt for this to get money to pay its creditors and meet other operating costs.

Merging with Other Firms: Mergers and alliances, such as that between Bamburi Cement and Athi River, can put a distressed company back on good financial footing. This is more critical in the case of unnecessary competition. In recent years the oil industry has witnessed some merger and buyouts, for example BP and Shell and more recently BP-Shell and Agip in Kenya.

Reducing capital spending on research and development: This option may make a firm 'survive' in the short-run. In the long run, research is critical in the light of dynamic business environment.

Issuing new shares: This depends on whether a company has exhausted its authorized share capital.

Negotiating with creditors: An organization may negotiate with creditors to extend the duration of debt servicing. This may involve new negotiations on interest rates and paying period. A successful negotiation may save a company from liquidation.

Liquidation: A situation in which a firm is terminated as a going concern involves selling its assets to salvage its value. The proceeds, net of transaction costs, are distributed to creditors in order of established priority.

Layoffs: Reducing staff levels is an option adopted by some organizations. Other firms are right sizing their labour force.

Conclusions

Altman's Z score model helps in clearly predicting the solvency status of the IT companies. Moreover during analysis, it is helping to find out the abnormal errors committed by few chartered accountants in balance sheets.

EBIT is the predominant factor for the solvency status of the IT companies. Hence more the Earnings, more the solvency for the IT companies with moderate asset value.

Directions for Future Research

The researchers can be carried out for IT companies globally to know the trend of the IT Sector.

The research can be extended to other non-manufacturing sectors in India as well as in other countries.

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Global Business Environment: Holistic Intrapreneurship

Bernd P. Platzek, Dietmar Winzker, and Leon Pretorius

Abstract

Nine design elements of holistic intrapreneurship are identified and a role model for entrepreneurial firms in a global business environment is developed with a view to addressing the entrepreneurial roles (what tasks are performed) that a firm has to fulfil in a specific way. This is done via a survey of the relevant literature on intrapreneurship in a global context. The role model can be interpreted as a synthesis between the individualistic and the collectivistic approaches of intrapreneurship found in the literature. It captures several roles of intrapreneurship as identified in the work of various authors within a holistic framework.

Three research questions are addressed in this paper: What are the design elements of holistic intrapreneurship? What role does intrapreneurship play in established technology firms in today's global and dynamic business technology environment? How can these firms achieve innovation and long-term success while pursuing current operations in a disciplined way? The focus is on strategic intent as strategy combined with nimble footedness to ride the waves of opportunity in a turbulent ocean that is the global competitive business arena.



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Global markets, ongoing technological change together with other rapid changes in the external business environment, make the world more complex and require change in traditional management. This affects the immediate as well as the continued profitability of organizations. Various aspects are summarized in the relevant literature concerning the term intrapreneurship (Rajasekaran 2008). Identifying opportunities and accelerating innovation in existing firms are a principal issue. Some authors generally prefer a more individualistic approach to generating and managing entrepreneurial ideas, whilst others opt for a more collective one. The life cycle approach to innovation in products, services and processes, is gaining importance, in that products are no longer considered in isolation from the environment and the logistic chain supporting them. All this requires enhanced understanding and nurturing of intrapreneurship to ensure innovations which support the life cycles of organizations.

A systems approach to innovation in a global context and intrapreneurship resulting in an entrepreneurial posture for the whole organization seem to be key success factors for survival in today's globally competitive technological business environment – in the entrepreneurial age (Farrell 2001) and in the midst of a global entrepreneurial revolution (Morris and Kuratko 2002).

Corporate entrepreneurship or intrapreneurship can be defined as identifying, evaluating, selecting and organizing opportunities (Block and MacMillan 1995) and considering risks (Schwab 1976) within the organization itself, in the industries and markets it serves and in the general external environment. From a systems view, the paramount entrepreneurial task can be specified as designing the exchange of information, goods and services between the organization and its turbulent business environment (Duncan 1975).

The permanent change of the general macro-environment (Fahey and Narayanan 1986, Morrison 2006) and of the microenvironment with industry, competitive and task environment (Porter 1980/2004, Ulrich and Fluri 1995) requires besides an external environmental analysis, an internal analysis (Kieser and Kubicek 1983, Porter 1985/2004, Mintzberg 1993, Picot et al. 1997, Rüegg-Stürm 2002) and an analysis of the links between the organization and its environment (Burns and Stalker 1961/2001, Emery and Trist 1965, Lawrence and Lorsch 1967/1986, Schreyögg 1978/1994, Aldrich 1979/2008, Morgan 1998).

With a holistic management approach (Winzker 2006), the entrepreneurial organization can identify opportunities and risks as well as adapt the organizational design to pursue entrepreneurial activities in a complex world (Ulrich and Probst 1991, Wheatley 1999, Bleicher 2004).

To bring entrepreneurial activities successfully into the global market place, a strong focus on cultural diversity is necessary in order to take advantage of this diversity and to adapt business opportunities to local markets (Dülfer 1997, Trompenaars and Hampden-Turner 1998, Hofstede 2001).

The various literatures (Drucker 1985, Pinchot 1988, Guth and Gins-berg 1990, Senge 1990, Covin and Slevin 1991, Abell 1993, Block and MacMillan 1995, Birkinshaw 2000, Morris et al. 2008) define different main themes in terms of the implementation and design of intrapreneurship. Nine central design elements of holistic intrapreneurship are identified (fig. 1). The starting point and first element is a definition of the main entrepreneurial task: Entrepreneurial organisations must identify and process opportunities and risks in the internal and external business environment. Here, strong implementation skills are important if entrepreneurial activities are to be realised in existing and new businesses using both existing and future resources and competencies.

The second element defines the entrepreneurial fields of operation in the external business environment: entrepreneurial opportunities and risks can be identified in both the macro and microenvironment. In particular, changes in the local and global business and factor markets are sources of opportunities and risks. The third element is the internal business environment. The entrepreneurial design of the organisation impacts upon its entrepreneurial orientation. The entrepreneurial dynamic of an organisation is determined by the entrepreneurial strategy, structure and culture, as well as by the entrepreneurial actors, the resources and competencies. Flexibility to increase adaptability and innovation, as well as stability in production in order to increase efficiency, is quoted as targets to help implementation and adaptation of the entrepreneurial vision and mission. This is achieved through de-centralised responsibility, initiative and self-monitoring simultaneously with central coordination and planning.

The fourth element explicitly specifies the three entrepreneurial strategy fields as innovation, adaptation and optimisation. Entrepreneurial decision fields are the fifth element and relate to the buy-side (input), the sell-side (output) and the inside (throughput). The sixth element comprises the entrepreneurial action fields of product, market and technology.

The remaining elements determine the entrepreneurial alignment of the organisation. Orientation towards viability is the seventh element and requires the pursuit of short-term and long-term success potential. In this process, when entrepreneurial decisions are taken, the life cycles of the organisation (Wright 1989) as well as the products, markets and technologies are taken into account. By carrying out entrepreneurial activities, a continuous renewal of the organization (Wright 1989) is achieved and the boundaries and networks of the organisation are continuously adjusted.

The eighth element is global orientation (Bartlett and Ghoshal), which widens the field of play for entrepreneurial activities and takes into consideration the global dynamics of the markets and cultural differences in terms of how opportunities and risks are identified and processed. Subsidiaries in various countries can be the agents of global entrepreneurial activities.

The ninth element, holistic orientation (O'Connor and McDermott 2006), makes it possible to have internal and external synergies, internal harmony between the individual actors and the organisation, as well as a symbiosis of the entrepreneurial organisation with the external environment. Common mental models and scenarios strengthen collaboration and adaptation within the organisation (Bleicher 2004). Global, holistic and sustainable orientation lends support to the entrepreneurial alignment of the organisation.

Fig. 1: Nine Central Design Elements For Holistic Intrapreneurship

Element 1: Entrepreneurial task	Element 2: External entrepreneurial operation fields	Element 3: Entrepreneurial organisation design
Element 4: Entrepreneurial strategy fields	Element 5: Entrepreneurial decision fields	Element 6: Entrepreneurial action fields
Element 7: Orientation towards viability	Element 8: Global Orientation	Element 9:Holistic orientation

Three entrepreneurial tasks of the entrepreneurial organization follow from this analysis:

(1) Entrepreneurial collection of information about the business environment;

(2) Entrepreneurial creation of the future through exchange with the business environment;

(3) Building the organizational architecture of the entrepreneurial organization to make it adaptable.

These three tasks consolidate the nine development elements for intrapreneurship derived from the literature search. To describe the entrepreneurial organization, the starting point is to look at the three entrepreneurial tasks identified and described in global literature surveys. To realize these three entrepreneurial tasks, each organization has to design the internal business environment in a specific way. A role model of the entrepreneurial organization has been developed as a result of analysis and synthesis using economic and systems thinking to define what entrepreneurial roles are necessary to perform these three entrepreneurial tasks in general. The role model presented here can be used as a guideline and helps to understand the organization "holistically" as an entrepreneurial corporative actor. In practice, this entrepreneurial role has to be fulfilled through job-sharing and specializing, coordination and motivation to harmonize the individual, common and organizational interests.

A framework of the global business environment helps the entrepreneurial organization to understand the characteristics and issues of the external environment as a playing field for opportunities and risks. The qualitative model links the internal with the external business environment and gives an overview of how the vital entrepreneurial organization can adapt and act interrelated with the external environment through entrepreneurial activities in established and new businesses.

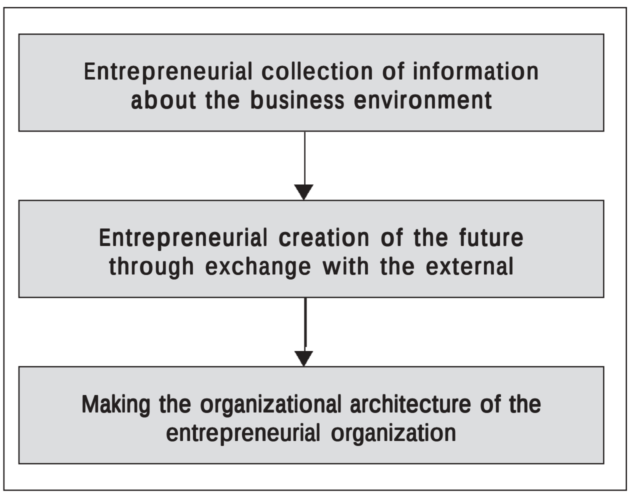
Tasks of an Entrepreneurial Organization

The starting point in the research method is to have a strong focus on relevant literature in the fields of intrapreneurship, international business environment and strategic management in order to identify the roles of intrapreneurship in today's turbulent business and high technology environment. The roles identified can be assigned to the three entrepreneurial tasks (Fig. 2) as a first building block for an entrepreneurial organization.

Entrepreneurial Collection of Information: Looking for Opportunities and Risks

Scanning the business environment to identify opportunities is the basic activity in the entrepreneurial collection of information (Kirzner 1973, Drucker 1985). Expectations about change in the business environment, trends and scenarios are an important source for identifying future opportunities (Penrose 1959, Schwab

Fig. 2: Three Tasks of the Entrepreneurial Organization Pursue (Roberts 2004)



1976, Thornberry 2006, Kotter 2009). Customers and suppliers are regarded as an important source of information collected commonly by the employees (Moss-Kanter 1983 and 1989, Brandt 1986, Joyce 2008). Developing common mental models about the business environment can help to identify opportunities and risks (Senge 1990, Oden 1997, Kuhn 2000, Thornberry 2006, Joyce 2008, Kohlöffel and Rosche 2009).

Subjects to analyse are the life-cycle and the dynamics of industries (Covin and Slevin 1991, Lumpkin and Dess 1996, Weick and Sutcliffe 2001, Hitt 2002 and 2005), the customers (Maucher 2007, Kohlöffel and Rosche 2009), the cultural and country specific context as well as the global business environment (Covin and Slevin 1991, Zahra and George 2002, Hitt et al. 2002 and 2005) and the internal (and external) business environment (Kotter 2009).

Entrepreneurial Creation of the Future: Adaptation and Proactive Activities for a Sustainable Vitality of the Organization

New products and new markets are essential for future viability of the entrepreneurial organization (Schumpeter 1912/2006 and 1950, Penrose 1959, Lumpkin and Dess 1996). International trade and globalization present opportunities and risks in global markets (Smith 1789/1982, Vernon 1966 and 1979, Schwab 1976, Moss-Kanter 1983, 1989 and 1997, Hamel and Prahaland 1994, Birkinshaw 2000, Zahra and George 2002). Understanding and using cultural diversity make for many entrepreneurial activities (Trompenaars and Hampden-Turner 1998, Maucher 2007).

Renewal of the organization needs permanent innovation, evaluation of established businesses and internal efficiency (Schwab 1976, Drucker 1985, Moss-Kanter 1983, 1989 und 1997, Hamel and Prahaland 1994, Oden 1997, Kuhn 2002, Thornberry 2006, Maucher 2007).

Many entrepreneurial activities at all levels, competitive orientation and permanent seeking out of competitive advantages are success factors for entrepreneurial posture (Peters and Waterman 1982, Covin and Slevin 1991, Block and MacMillan 1993, Lumpkin and Dess 1996, Hitt 2005, Morris and Kurratko 2002, Sathe 2003). The global business environment also requires alliances and cooperation with other organizations (Moss-Kanter 1983 and 1989).

Resources and competences are fundamental for entrepreneurial activities and entrepreneurial activities make a contribution to the development of new competences and resources (Penrose 1959, Moss Kanter 1983, 1989, 1997, Guth and Ginsberg 1990, Hamel and Prahaland 1994).

Adaptation to change, risks and crisis, organizational resilience, fast learning from the market, a holistic view and a long-term orientation are required for sustainable vitality of the entrepreneurial organization (Moss-Kanter 1983 and 1989, Senge 1990, Kuhn 2000, Weick and Sutcliffe 2001, Sathe 2003, Joyce 2008, Kotter 2009).

Building the Organizational Architecture of the Entrepreneurial Organization

Improving efficiency through job-sharing (Smith 1789/1982) and Coordination (Penrose 1959, Abell 1993) is the first basic aspect of building the entrepreneurial architecture of the organization. The second basic aspect is to achieve innovations (Schumpeter 1912/2006 and 1950). To realize these two basic aspects, it is important to harmonize the organizational and individual (long-term) interests and to motivate the staff to act in accordance with the entrepreneurial organization (Schwab 1976, Trompenaars 2007, Oden 1997, Kuhn 2000, Maucher 2007, Joyce 2008). These two basic aspects can be seen as dual entrepreneurial strategies: efficiency in established businesses and new business development (Moss-Kanter 1983, 1989 and 1997, Abell 1993, Hamel and Prahaland 1994, Oden 1997, Birkinshaw 2000, Morris and Kurratko 2002).

There are several design fields for acting on these basic aspects. Designing incentives (Kirzner 1973, Block and

MacMillan) and flexible, decentralized structures (Schwab 1976, Hamel and Prahaland 1994, Oden 1997, Hitt et al. 2005, Thornberry 2006, Maucher 2007, Kohlöffel and Rosche 2009) with entrepreneurial management teams (Trompenaars 2007, Kuhn 2000, Maucher 2007) and managers (Drucker 1985, Brandt 1986, Thornberry 2006, Kohlöffel and Rosche) who lead the entrepreneurial units (Peters and Waterman 1982) and build the formal structure. Some literature defines a strong relevance of informal structures for entrepreneurial activities (Peters and Waterman 1982, Pinchot 1985).

Not just the structure seems to be relevant for an entrepreneurial organizational design, but also an entrepreneurial spirit and culture (Schwab 1976, Drucker 1985, Wunderer 1993, Trompenaars 2007, Baden-Fuller and Stopford 1994, Kotter 2009, Kohlöffel and Rosche 2009). To develop such an entrepreneurial culture, organizations can give important new projects to successful entrepreneurial managers as an incentive (Block and MacMillan 1993) or use entrepreneurial experiments to provide common learning from these experiments (Senge 1990, Hamel and Prahaland 1994, Sathe 2003, Kohlöffel and Rosche 2009). The several building blocks of organizational design (strategy, structure and systems, culture, human resources, physical and financial resources) should be coordinated to support entrepreneurial posture (Covin and Slevin 1991).

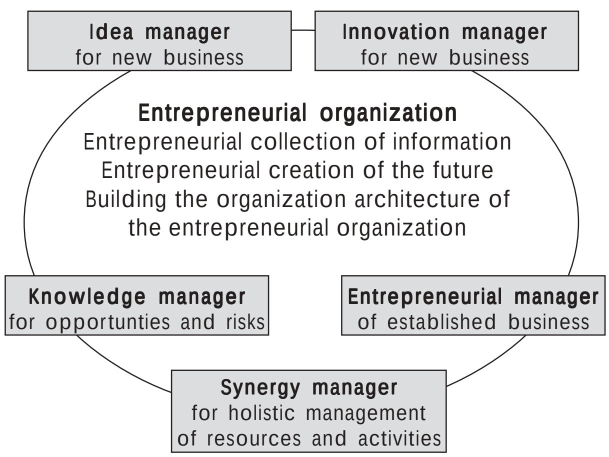
The entrepreneurial organization can use and coordinate its resources and its knowledge to realize synergies between and inside units (Hitt et al. 2005, Joyce 2008) also on a global scale to realize internal and external entrepreneurial activities (Birkinshaw 2000). To coordinate the decentralised entrepreneurial activities, the entrepreneurial organization can use (as an alternative to the hierarchical system) internal markets and networks (Wunderer 1993, Abell 1993). The whole organizational design for operations should be stable in crisis (Weick and Sutcliffe 2007).

A conceptual role model of the entrepreneurial firm as a general framework for addressing the entrepreneurial roles (what tasks are performed) that a firm has to fulfill in a specific way is dealt with next.

A Role Model for the Entrepreneurial Organization

The role model (Fig. 3) can be interpreted as a synthesis between the individualistic and the collectivistic approaches of intrapreneurship that one can find in the

Fig. 3: Role Model for an Entrepreneurial Organization



literature. It captures several roles of intrapreneurship identified in the relevant work of various authors and in the view of the global competitive business environment in an integrative framework. The role model gives a framework to perform the three entrepreneurial tasks and gives a general orientation to create the entrepreneurial organization in a specific way and in a specific context.

The knowledge manager collects and analyses systematically relevant information about the internal (Porter 1985, Johnson and Scholes 1993, Pedler et al. 1997, Dess and Lumpkin 2003, Hitt et al. 2005) and external business environment (Porter 1980, Fahey and Narayanan 1986, Senge 1990, Graf 1999 and 2000, Palmer 2002, Morrison 2006, Parr Rud 2009) to create knowledge (Checkland and Holwell 1998) about customers, suppliers, markets and industries, competitors as well as mental models, trends and scenarios about the general macro-environment. This knowledge helps to identify opportunities and risks for new businesses and in established businesses. Learning from entrepreneurial activities (Block and MacMillan 1995, Argyris 1999) and the working place (Raelin 2008), crisis (De Geus 2002), the present (Naisbitt 2007) and from the emerging future (Scharmer 2009) also creates knowledge and future options. The knowledge manager needs a global perspective (Thurow 2004) and has to link information from different disciplines (Palmer and Hartley 2002).

The idea manager has to think up new things creatively (Peters and Waterman 1982) to recognize and assess opportunities and risks in a discovery process (Smith and Di Gregorio 2002). He can use the information from the knowledge manager for agenda setting and create the match between the idea and the organizational strategy and design (Rogers 2003). To evaluate and select the opportunities, he has to check the feasibility, the economic potential and the fit to strategy (Block and MacMillan 1995). The idea manager can use creativity techniques (De Bono 1989 and 1990, von Aerssen 2009), training and publications (Block and MacMillan 1995) or a disciplined and organized process (Drucker 1985) to increase the flow of ideas. He can also use simulation and experiments to find ideas (Anderson et al. 2010). The idea manager has to think systematically about entering new markets and creating new products, services and industries (Kim and Mauborgne 2005).

The innovation manager has to implement many ideas, because innovation success is a numbers game (Peters and Waterman 1982). He has to organize resources, design the innovation process and guide the new idea through the stages of implementation (Rogers 2003, Frank 2006). The innovation manager has to consider different types of innovations and different contexts to design the implementation (Wunderer and Bruch 2000). He can focus internally on strategy, structure, processes, capabilities (organizational rejuvenation, business model reconstruction, strategic renewal) or externally on products and markets (sustained re-generation, domain redefinition) in order to innovate (Morris et al. 2008). He can use corporate laboratories for product engineering and development (Best 2001). The innovation manager acts in the field of non-routine and often separate from the day-to-day business (Narayanan 2001).

The entrepreneurial manager in established businesses designs job-sharing, coordination and motivation within the businesses (Picot et al. 1997). He has to develop a clear picture of the internal value added chain and the costs added at each stage to reveal leverage points for cost reduction – an analogous analysis beyond the organization points to leverage points in the external business system (Abell 1993). Therefore, the entrepreneurial manager in established businesses has to look at all floating activities of the value chain internally as well as across the organization to design transparent and efficient relationships inside the organization and with the network organizations (Womack and Jones 1997). He also has to create and improve the processes of the organization in a holistic way, in accordance with the strategy, to create value for customers and to adapt the organization to external change through learning and redesign of the processes (Hammer 1997). The entrepreneurial manager in established businesses designs its operations and the supply chain with a special focus on flexibility to adapt quickly to a changing and risky business environment and to realize continuous improvements to reduce costs and to achieve efficiency (Slack et al. 1995, Kaluza and Blecker 2005, Poulter 2006). He optimizes, modifies or increases its existing activities and makes effective decisions to solve basic problems in its businesses (Drucker 2007). The entrepreneurial manager has a strong focus on results and identifies what activities should be ceased (Malik 2000). He makes decisions on outsourcing of value-chain activities and support activities, and creates formal and informal networks to integrate processes (Child 2005).

The synergy manager designs job-sharing, coordination and motivation between departments (Picot et al. 1997), between organizations (Wunderer 2006), between subsidiaries and between the subsidiary and its parent organization (Birkinshaw 2000). He finds a balance between the short-term and the long-term planning in turbulent times (Kotler and Caslione 2009), as well as between the entrepreneurial benefits of de-centralization and the benefits of recognizing and exploiting corporate synergies e.g., across product lines in any function or through sharing a (common) resource (Abell 1993). He secures the organization's position in the future through building competencies and realizing entrepreneurial activities which need more resources than a single business unit has (Hamel and Prahalad 1996). He realizes synergies between entrepreneurial activities, as well as between new businesses and established businesses (Porter 1980/2004). The synergy manager has to fulfill three strategic needs - efficiency, innovation, and adaptability – to organize business activities with reference to the changed context in which the businesses operate (Child 2005). He structures effective organizations through the assignment of decision rights within the company, methods of rewarding individuals and the design of systems to evaluate the performance of individuals and units (Brickley et al. 2004). He has to set the boundaries of the whole organization (what businesses should it do) and to decide on what basis the organization should compete to determine the design of the internal organization (Besanko et al. 2007). The synergy manager creates long-term partnerships with customers and suppliers, links people in different parts of the internal organization and realizes a fit among the strategy, the organizational design and the relevant business environment through sorting out which of the identified opportunities the entrepreneurial organization should pursue (Roberts 2004).

Conceptual Framework for the Global Business Environment

The entrepreneurial organization has to play the entrepreneurial roles in interplay with its external business environment which is in a permanent state of change. This brings new opportunities and risks as well as the need for adaptation in established businesses. Understanding today's global and dynamic business environment is essential for the entrepreneurial organization and it is a result of the entrepreneurial collection of information. A clear picture of the external business environment helps to develop a common mental model about the business arena and offers a foundation for thinking about the proactive and reactive entrepreneurial activities representing the result of the entrepreneurial creation of the future; the focus is on the exchange between the entrepreneurial organization and its environment. To realize these entrepreneurial activities it is necessary to design and adapt the internal business environment. The permanently changing business environment makes it necessary to continuously redesign the organizational architecture. A conceptual frame-work of the business environment helps to create a specific picture of the organization in its environment to act on the entrepreneurial roles and to pursue the entrepreneurial tasks.

The Business Environment

In the literature, there are numerous concepts to describe (Kerr and Littlefield 1974, Weinshall 1977, Fayerweather 1978, Ulrich and Probst 1991, Tepstra and

David 1991, Malik 2008) and to analyze (Fahey and Narayanan 1986, Johnson and Scholes 1993, Rugman 2006, Louw and Venter 2006, Daniels et al. 2007) the business environment.

Some authors focus on the availability of resources for the organization (Emery and Trist, 1965, Aldrich 2008), others on the attributes of the external environment like turbulence, hostility, complexity that determines uncertainty (Khandwalla 1977, Ansoff 2007) and diversity (Trompenaars and Hampden-Turner 1998, Hofstede 2001, Schuster and Copeland 2006).

A common distinction to define the fields of influence and interaction between the organization and its environment is made between a general (contextual) macro-environment and an immediate (operational) micro-environment (Worthington and Britton 2000, Hitt et al. 2005). The macro-environment is built by the political/legal, economic, socio-cultural, technological, and physical segments (Dülfer 1997). The Micro-environment contains the competitive or industry environment and the task environment of the organization (Fahey and Narayanan 1986, Porter 1985/2004).

For the global organization the local communities, the nation states, the world regions and the whole world are relevant geographical dimensions of the environment (Graf 2005, Morrison 2006). This makes a systems view on the business environment very useful (Miller 1995, Haines 1998). The internal business environment can be described in particular through processes (Porter 1980/2004), structures (Mintzberg 1993, Child 2005) and other arrangements like strategy, culture as well as orientation on optimization and renewal (Rüegg-Stürm 2002).

A Framework for viewing the Global Business Environment

To get a holistic picture of the global business environment of a specific organization (Fig. 4), it is necessary to define four dimensions. The first dimension focuses on the geographic areas in which the organization operates. Environments for operations are the global economy, world regions, nation states and local communities. The second dimension focuses on the fields for the operational interplay between the organization and its environment. The relevant general macro-environment and the specific microenvironment define these fields of influence and interaction for the exchange between the organization and its external business environment.

The third and fourth dimensions focus on the attributes of uncertainty and diversity. The entrepreneurial organization has to assess the cultural diversity and the uncertainty of the business environment. This assessment has important implications for the required cultural adaptation of the entrepreneurial activities and the optimization of the organizational design in several geographic areas. It helps to identify possible opportunities from cultural diversity and to define the desirable intensity of entrepreneurial posture in correspondence to the dynamic intensity of the business environment (Lawrence and Lorsch 1986, Morris et al. 2008).

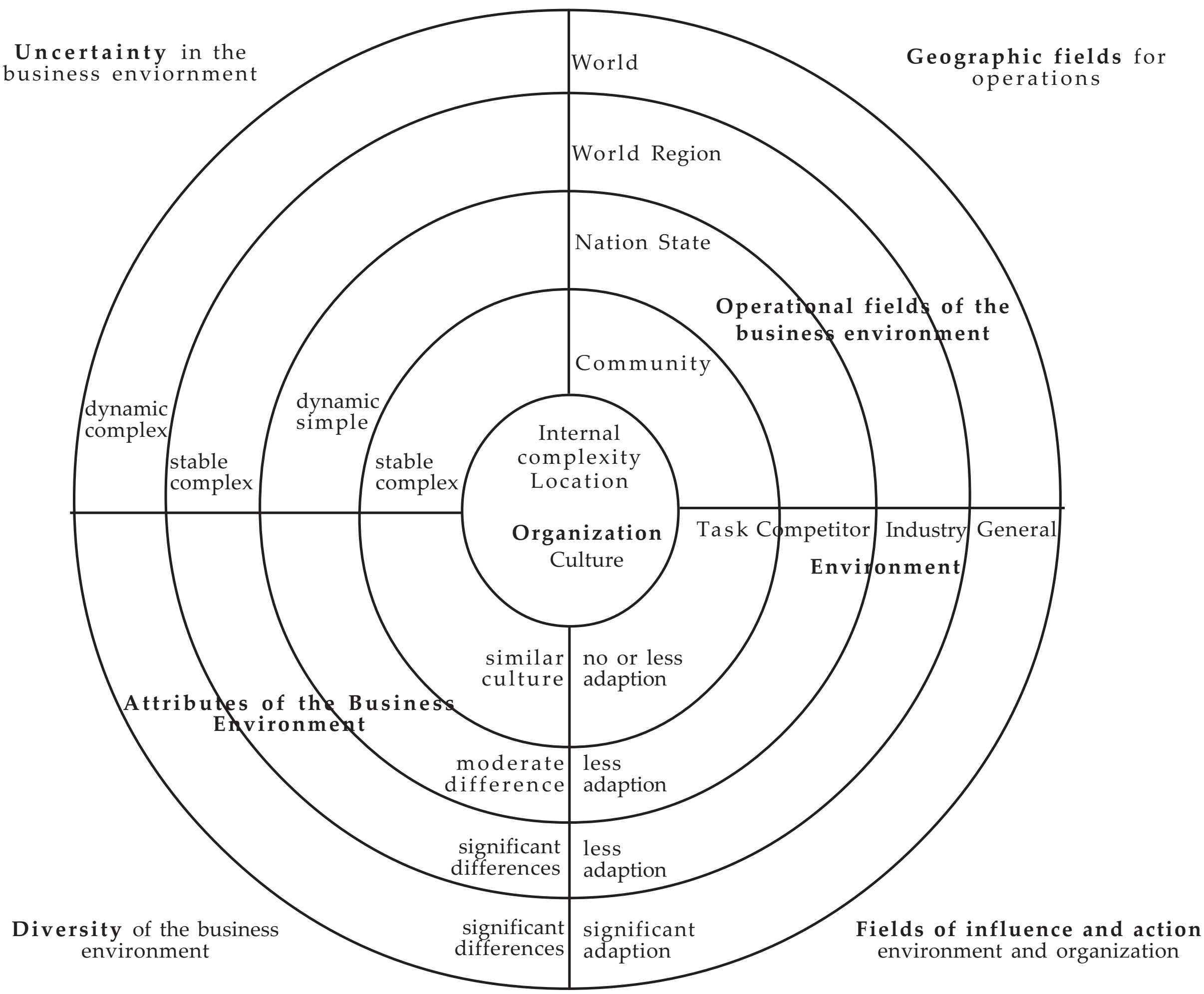
Linking the Entrepreneurial Firm to Its Environment

Viewing the entrepreneurial organization as an open system (Duncan 1975, Schein 1980), the entrepreneurial focus is on the exchange of inputs and outputs (products, services, information) between the organization and its macro and microenvironment as well as on the internal adaptation of the organizational goals and architecture to support this exchange (Thompson 1967/2007, Schreyögg 1974/1994, Aldrich 2008). The dynamics of the business environment influences especially the technological basis of production and the market situation (Burns and Stalker 1961/2001) for new and established businesses.

The situation in the business environment determines the structure of the entrepreneurial organization (Chandler 1962, Mintzberg 1983/1993) to create entrepreneurial activities and to achieve a strategic fit between different parts of the organization (Dess and Lumpkin 2003) as well as between the organization and its environment (Kieser and Kubicek 1983). The entrepreneurial organization acts to develop new competencies and resources to foster entrepreneurial activities induced through the Top-Management as well as through decentral autonomous entrepreneurial behaviour (Hitt et al. 2005).

The entrepreneurial behaviour of the organization can be stimulated through a changing external business environment (Johnson and Scholes 1993) as well as through an internal dynamic (Schumpeter 1912/2006 and 1950, Bossel 2004) based on organizational levers like entrepreneurial strategy, structure, culture, resources and competencies. The entrepreneurial organization as a whole living organization learns about and adapts to the changing environment, builds sustainable and constructive relationships within the organization and with entities in the external business environment (De Geus 1997).

Fig. 4: A Framework for the Business Environment



Interaction between the Organization and Its Environment: A Systems View

In the literature there are different approaches in systems thinking which seem to be relevant to give some important implications for seeing the entrepreneurial organization in a holistic way and for identifying the role of intrapreneurship in today's global business environment. A holistic view helps to create a whole entrepreneurial organization which is more than the sum of their parts and which enables the organization to adapt through exchange of information, communication and feedback (Ber-tanlanffy 1968).

A changing environment requires a systematic collection of information about these changes and an internal flexibility of structures and processes (Katz and Kahn 1966). Entrepreneurial organizations need to understand the complexity of the internal and external business environment as well as the structure of the relationships between the organization and its environment (Emery and Trist 1965). To create a viable entrepreneurial organization, the organization needs autonomous operational units which exchange with their environments, as well as a unit which identifies opportunities and risks from the whole organization's point of view (Beer 1979, 1995).

The entrepreneurial organization as a multi-level-multi-goal-seeking system is able to grow until it has an enabling business environment for its products and services and until it adapts its internal structures effectively to changing environments (Miller 1995). The entrepreneurial organization builds temporary stable internal structures to realize a rotation between change and stability (Wheatley 1999). Managing complexity (Wood 2000, Bleicher 2004, Vester 2005) and organizational learning (Ulrich and Probst 1991, Senge 2003) in established businesses and for new businesses is essential for viability and renewal of the entrepreneurial organization with adaptable and holographic structures (Morgan 1998).

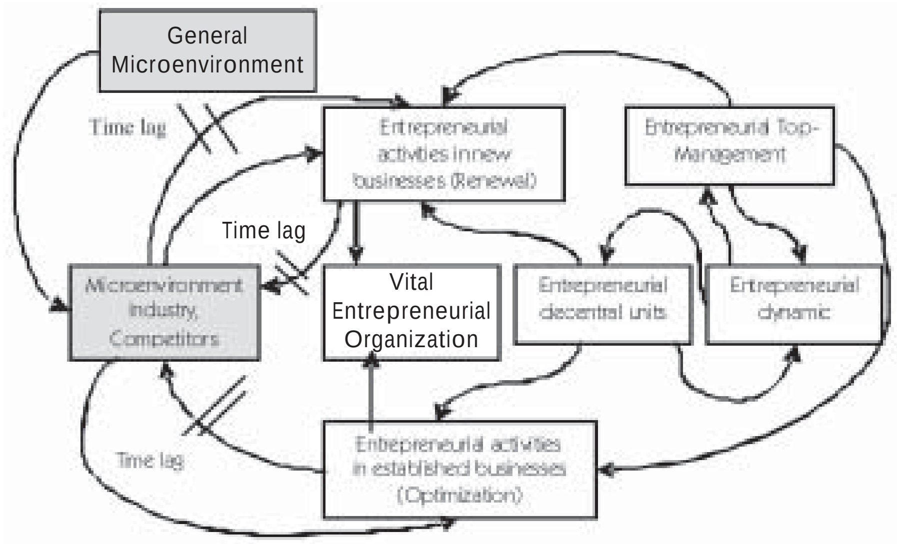
A Model of a Vital Entrepreneurial Organization and Its Environments

From the systems, strategy and contingency literature, it is possible to deduce relevant variables for the vital entrepreneurial organization and its business environment as a dynamic landscape for opportunities and risks. The entrepreneurial organization has to manage the exchange between the organization and the external environment in established and new businesses to stay vital, as well as to create a entrepreneurial posture as a momentum of its own.

The general macro-environment contents the global and local political/regulatory, economic, social and technological/ecological dimension. The industry and task environment contains the relevant variables of the microenvironment such as industry and competitive dynamics, as well as the buy-side and the sell-side of the entrepreneurial organization. This helps to identify the indirect and direct influences of the external environment on the organization (Palmer and Hartley 2002). The (relevant) general macro-environment influences the industry and the competitive environment directly and the organizations operating in this industry more indirectly. The (relevant) microenvironment with industry, competitive and task environment interact with the entrepreneurial organization more directly (Osborn et al. 1980).

The Top-Management and decentralized, autonomous entrepreneurial units induce entrepreneurial activities. These activities are coordinated and stimulated through the organizational design and the corresponding internal dynamics. These internal entrepreneurial dynamics depend on (1) the entrepreneurial strategy in established and new businesses and the evolution of the organizations mission over time, (2) the entrepreneurial architecture with the formal and informal structures as well as the incentive and learning structures, (3) the entrepreneurial culture with a special focus on information, communication, cooperation, innovation, learning, identification and motivation, (4) the entrepreneurial exploitation of resources and competencies.

Fig. 5: The Vital Entrepreneurial Organization



The qualitative model (Fig. 5) links the entrepreneurial organization with its environment and presents the exchange through entrepreneurial activities in new and established businesses on a highly aggregated level.

Conclusions

Firstly, today's business environment demands intrapreneurship and innovation from companies, embedded in a holistic management approach. Secondly, successful intrapreneurship requires a strong focus on the external and internal business environment to find and work on entrepreneurial opportunities and risks to build new competitive advantages, as well as to adapt the firm to a changing and turbulent world. Entrepreneurial firms have to achieve a dynamic fit between the firm's internal configuration (organizational architecture, culture, resources and capabilities including technology) and the strategic exchange with their external business environment (in both directions).

Therefore, entrepreneurial organizations can use and develop internal entrepreneurial systems dynamics to support emerging entrepreneurial activities as well as an explicit initiating of entrepreneurial activities through the Top-Management and through decentralized unities and venture teams. Holistic intrapreneurship means to act on three basic entrepreneurial tasks to implement the nine central design elements:

(1) Entrepreneurial collection of information: Looking for opportunities and risks;

(2) Entrepreneurial creation of the future: Adaptation and proactive activities for a sustainable vitality of the organization;

(3) Building the organizational architecture of the entrepreneurial organization.

There is no one best way to design an entrepreneurial organization, so every organization has to build their own organization's design using cultural diversity in global market places. Entrepreneurial organizations adapt this organizational architecture and the strategies for interacting with the external business environment permanently to respond and act on the continuous change in the macro and microenvironment.

The conceptual role model of the entrepreneurial firm introduced here is a general framework to address the entrepreneurial roles that a firm has to fulfill in a specific way to perform entrepreneurial tasks. This unique forming (how the tasks are performed) depends heavily on the cultural context and the specific environment in which it operates. The conceptual model defines five entrepreneurial roles:

(1) Knowledge manager - scanning, monitoring, forecasting and assessment: understand the (future) global business environment and the means for the organization;

(2) Idea manager - thinking up new things: identify new opportunities and risks in the global business environment

(3) Innovation manager - doing new things: put new opportunities into practice and manage risks;

(4) Entrepreneurial manager – carrying out established business with an entrepreneurial posture: managing optimization, risks, flexibility and adaptation;

(5) Synergy manager – holistic management of resources and activities: organizational design for job-sharing, specializing and learning, coordination and motivation with harmonized organizational and individualistic objectives, as well as taking advantage of (cultural) diversity.

For an entrepreneurial analysis of the global business environment, it is useful to focus on four dimensions:

(1) Geographic dimension of the business environment: how global are the current and future operations and industries? Where are the current and future markets and playing fields?

(2) Fields of influence and interaction between the organization and its business environment: how can one describe and understand the business environment? What is the operational and what is the relevant general environment?

(3) Uncertainty in the business environment: how dynamic and complex is the environment? What entrepreneurial intensity is sufficient?

(4) Cultural dimension of the business environment: how can the entrepreneurial organization use the diversity? What adaptations are required?

The Model of a vital entrepreneurial organization describes the ex-change between the entrepreneurial organization and its external environment in both directions. Entrepreneurial activities in established businesses help to improve the short-term vitality of the entrepreneurial organization. The long-term vitality depends on a continuous stream of new businesses, especially in a globally competitive technological business environment. The model includes structural building blocks to support positive entrepreneurial dynamics.

The role model and the three basic entrepreneurial tasks can be used as a guideline to evaluate and assess the basic actions to achieve an entrepreneurial posture in technology firms in a holistic way. It is also a starting point for building a specific firm model in a unique cultural context. This model may also be extended to include cross cultural effects. Using the framework developed for understanding the global business environment and the model of the vital entrepreneurial organization in its environment, the entrepreneurial organization can identify the specific lever for long-term vitality.

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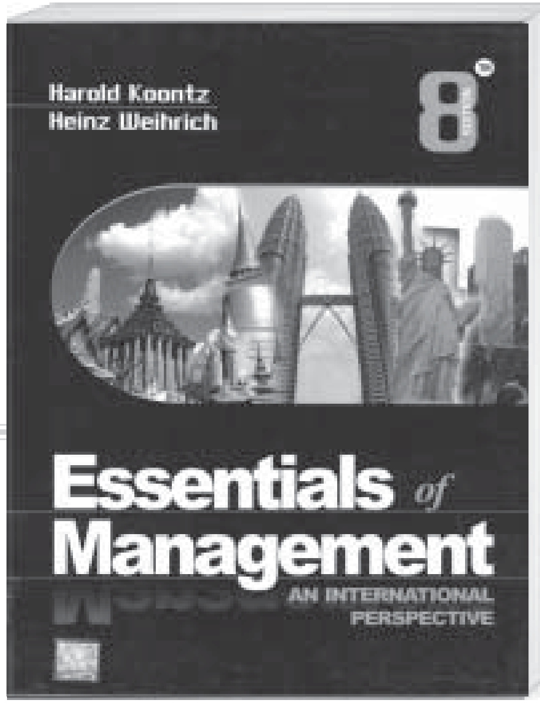
Skimming and Scanning



Book Title : *Essentials of Management*
An International Perspective
Author : Harold Koontz and Heinz Weihrich
Edition : Eighth - 2010
ISBN-13 : 978-0-07-014495-8
Pages : 464
Publisher : Tata McGraw-Hill Publg. Co. Ltd., New Delhi.

Cyril J. O'Donnell died on 16th February 1976 at the age of seventy six. Harold Kuntz died on 11th February 1984 at the age of seventy five. The stupendous work that these two titans created in the making of Principles of Management was later rechristened as Essentials of Management.

After they passed away the management torch developed by them has been carried forward by Heinz Weihrich. He is the creator of the TOWS matrix that is used as a tool for companies to use in their strategy formulations. Heinz has acknowledged that much of the later editions, including the current one, are the distillation of learning from students, managers and professors who have shared their thoughts on the subject of management.

Reviewed by Prof. Sudheer Sudhakaran, Associate Professor, SCMS-COCHIN, Prathap Nagar, Muttom-683106, Ernakulam, Email: sudheer@scmsgroup.org

If one were to look at the book from a consumer behaviour perspective Heinz Weihrich is the conditioned stimulus and Harold Kuntz is the unconditioned stimulus. It would just be a matter of time before the older generation - who swears by the earlier books - get weaned away to read a book on management that is written only by Heinz Weihrich.

The Vision 2010 for NTT DoCoMo mobile phone services is MAGIC – Mobile, Anywhere, Global, Integrated and Customized personal services.

Many of the same MAGIC principles have been woven into this edition. His primary focus, however, is on the impact of the role of *globalization, technology and entrepreneurship* in the contemporary world of management thoughts. In keeping with the times in which we live, he advises the reader to visit his website for further reading of general principles. In doing so he is reaching out to the netizens of today's cyber world who probably do not find time to read a book but would happily surf for hours. This explains why each chapter contains questions that are meant to be researched on the internet!

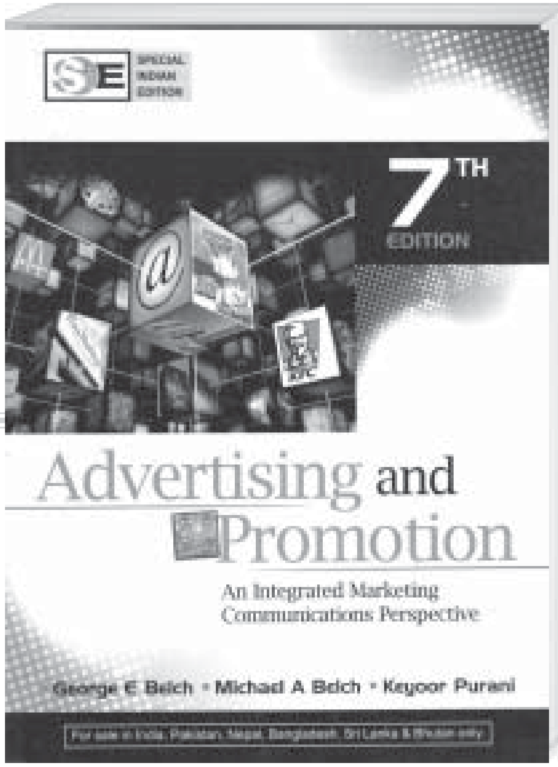
In keeping with the context of changing realities of geo-politics and emerging markets, his examples are targeted for the Asian students and managers with ample space devoted to Indian and Chinese settings. The international case studies reflect the geo-centric approach that he spells out in the book. The new age Indian reader would be happy to hear about his inclusion of a case-let on Sudha Murthy and references to Ratan Tata and Obama. The author has spelled out the role of GE's contribution to India's outsourcing boom.

It is interesting to read of the growing number of corporate houses that now acknowledge the *spiritual needs* of their employees and use the fulfillment of the same as a competitive advantage. The book has also given importance to the institutionalization of ethics - the HP Way for instance and the process of facilitating whistle blowers to help maintain ethics. The example of Acer illustrates the knowledge-led economy of the era in which we live where the basic tenets of corporate culture includes *putting knowledge to work for the company*.

The metrics relating to the quality dimension emerges from the countries of only three continents – the Asian example of Japan (Deming, Juran), USA (Malcolm Baldrige) and Europe (ISO and the European Model for TQM).

This is the eighth edition of the book and is dedicated to his wife Ursula. The earlier editions suffice when it comes to universal precepts of management and thought. The book is essentially old wine in new bottle. Therefore readers are advised to retain their old editions for the vintage taste it still holds.

Skimming and Scanning



Book Title : *Advertising and Promotion* - An Integrated Marketing Communications Perspective

Author : George E. Belch, Michael A. Belch, and Keyoor Purani

Edition : Seventh - 2010

ISBN-13 : 978-0-07-014496-5

Pages : 1075

Publisher : Tata McGraw-Hill Publg. Co. Ltd., New Delhi.

Most contours of marketing have been undergoing changes, and perhaps most significant of them has been taking place more emphatically in the arena of marketing communications. These changes are axiomatically due to the fact that constant changes are taking place in the customer demand patterns for various products and services. When customers seek more value in products and services, marketers get typically challenged to provide them and most often communicating this value most effectively will be the call of the hour.

Communication responses have to be in tune with the changes in the consumer segment. These segments seem to get more and more fragmented as the products and services get greatly customized and delivered at different physical locations. Technological solutions to these demands are of course forthcoming but to choose the right one at the right cost is not easy.

Reviewed by Prof. R.T. R. Varma, H.O.D. - Marketing, SCMS-COCHIN, Prathap Nagar, Muttom-683106, Ernakulam, Email: rtrvarma@scmsgroup.org

Communicating value most effectively through creative efforts and the right media then becomes a critical requirement for success, for these days it is not just enough that a company has a splendid product or service to offer. A lot depends on how well the marketer would inform, persuade, and convince the customer that it was the best choice or value for money.

Under the challenging concerns as they exist in the realms of marketing communications, another *text book Advertising and Promotion* written by George E. Belch, Michael A. Belch, both of San Diego State University, U.S.A. and Keyoor Purani of the Indian Institute of Management, Kozhikode, India is most welcome. The seventh edition (a special Indian edition) of this book published by Tata McGraw Hill has been designed and compiled with an objective to focus on marketing communications from *an integrated marketing communication perspective*.

The authors in the preface of the book make it abundantly clear that though the text will primarily focus on the fast changing world of advertising, it would still pursue an integrated approach or perspective so as to gain what they call "a big picture" of how to go about and plan and execute advertising and promotion programmes.

By now, India has been acknowledged quite clearly as the second largest domestic market for goods and services, only after China. Some estimates quote that the middle class population of India is soaring over 500 millions. The purchasing power of this segment has been steadily climbing fueled by the increasing demand for consumer goods, white goods, and automobiles.

People of India endowed with a wide variety of religions, ethnic groups, cultures, and value systems also speak a large number of languages and dialects. The complex situation provides a nightmarish scenario for the professionals in marketing communications. The "Indian special edition" of the book is claimed to be an attempt to add some legitimate Indian flavour to the advertising and promotional practices mostly modeled on Western standards and practices. Co-author, an experienced faculty from IIM, Kozhikode Mr. Keyoor Purani has apparently contributed considerably in this regard.

Like other well recognized text books on marketing communications, this one too provides a fairly in depth coverage of marketing insights into the communication process and advocate the clear imperative for an integrated communication approach in achieving communication objectives that empower marketing programmes. Chapters one to seven focus on the above aspects and highlight the critical role of integrating communications to make the efforts clutter free and cost effective.

Chapters 8 to 13 deal with the creative and message strategies that need to be developed for any integrated marketing communications programme. Unlike in a majority of other similar texts, discussions and discourses in this text seemed to have centered around more on media strategy and much less on the creative part. On the creative part the authors do not seem to have followed a very structured approach particularly on areas like advertising design based on theoretical frame works, advertising appeals, message strategies, and frame works for execution of ads being commonly adopted by the ad agencies.

But one of the most outstanding features and strengths of the text is the massive amount of exposure afforded to media strategy. This perhaps is in recognition of the fact that to a great extent it would be the effectiveness of the media strategy that ultimately spells success or failure for any ad campaign. To choose the right media at the right cost will certainly need a lot of guidance and experience and when one realizes that the media cost almost engulfs the creative cost involved in an ad campaign, the importance of managing media becomes very vital.

Media planning does get exhaustive treatment comprised of extensive discussions, debates, and illustrations, and examples on broadcast media, print media, and other support media. There is substantive coverage of the roles of Television and Radio separately as the major broadcast media players. Discussions that contrast the situation in the US that there were about 6000 FM stations there while in India the FM radio stations were just about beginning to enter the growth phase should generate a lot of keen interest among the practitioners and students of advertising.

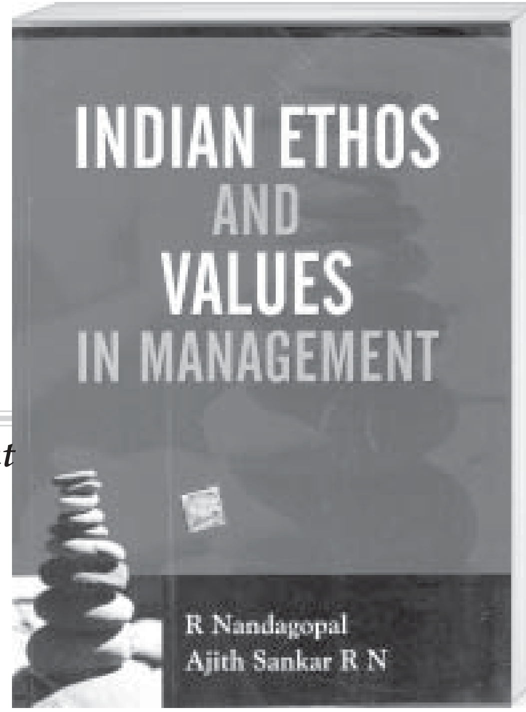
Quite appropriately, a separate chapter has been devoted on the significant role of the Internet and interactive media. Though it was forewarned in the beginning of the 21st century that the Internet might displace the print media or create any serious dent in the broadcast media, nothing of that had really happened. But the potential use of the Internet in carrying advertising messages is well recognized and as and when the broadband accessibility improves in India, things indeed can take very predictable turns.

Sales Promotion had been getting an increasingly important role in the integrated marketing communications of a company. This trend was growing very much in many categories of products like "health care, computer hardware and software, consumer electronics, and service industries." Some orthodox marketers might still stick to the conventional thinking that media advertising was most important for brand building and that sales promotions were a bunch of gimmicks. But many reasons explain why there had been a tremendous growth in the sales promotions budget during the last few years. Lively discussions and illustrations on the emerging trends and tools used for sales promotions provide an excellent opportunity for the students to gain a comprehensive exposure to what was going on in this sphere of promotion activities heavily empowered through effective communication measures.

Exclusive and in depth review and analysis of the various theories and practices in Public Relations, and Personal Selling are presented in subsequent independent chapters. Once again these arenas are visited from the stand point of treating all these exercises as part of integrated marketing communications which are being very effectively made use of by many successful corporations of modern era. The text is complete with a thorough discourse on measuring the effectiveness of the promotional programme, international advertising, regulations in the industry and a social responsibility review.

The book written in a very lucid style is truly outstanding in many respects. Through out the book, a very conscious effort seems to have been made to constantly remind and reorient the readers' mind in terms of a well balanced "IMC perspective." The book can very well be recommended for use as the main text for a graduate course on Integrated Marketing Communications.

Skimming and Scanning



Book Title : *Indian Ethos and Values in Management*
Authors : R. Nandagopal and Ajith Sankar R.N.
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Times are rapidly changing. The business world today continues to globalize at an accelerating rate and management is becoming more of a challenge. While on one side technological innovation is developing at a breakneck speed, on the other side business scandals have become a regular occurrence. Degradation in business values and ethics is probably one of the main reasons the world economy is presently in crisis. Organizations across the globe have realized this and are taking conscious steps to implement the management philosophy based on professional ethos. Value based management can be the answer to many problems plaguing the economy today.

Reviewed by Ms. Sunitha T.R., Assistant Professor - SSTM, Prathap Nagar, Muttom-683106, Ernakulam, Email: sunithatr@scmsgroup.org

Indian Ethos and Values in Management authored by R. Nandagopal and Ajith Sankar R.N, gives a framework to professionals to facilitate this value based decision making not just economically, socially, legally or ethically but also spiritually and responsibly.

This book provides a comprehensive coverage on the subject of "Ethos and Values" from an Indian perspective dealing with facets like heritage, spiritualism, slokas, values, ethics and educational systems in ancient India. The authors follow a unique story telling format to communicate the significance and relevance of ethos and values in business for management students/ professionals. The essence of this book is the use of Sanskrit teachings at various points throughout all chapters and its application to contemporary issues.

The first chapter introduces spirituality at work, emphasizing how values are applied to work in harmony even in the "secular" world of business. This chapter also discusses the eight principles of Indian management as revealed in our ancient wisdom from sacred books like *Bhagavad-Gita, Upanishads, Bible* and *Quran.*

The second chapter covers a wide array of subjects from guidelines for wealth creation, distribution and consumption as preached by spiritual leaders and scriptures, cradle to cradle (C2C) design, quality ethos in India, economics of giving, limitation associated with current economic paradigm, Buddhist, Biblical and Islamic economics. Though the subjects are varied they offer complete coverage of important topics under the broad spectrum of the chapter title.

The following two chapters give ample information on the relevance and application of values in management. The concept of values is explained and annotated in various examples with great clarity and thoughtfulness. They cover teachings of Vedic literature, Aristotle and scientific practices and universal values through Gödel's theorem, butterfly effect and the aspect experiment.

Chapter 6 looks at the educational system in ancient India explaining the philosophies of Veda, Guna and Yoga and how these teachings can discipline an individual's character and society at large. They not only cover age old philosophies but keeps pace with current thinking in business practices.

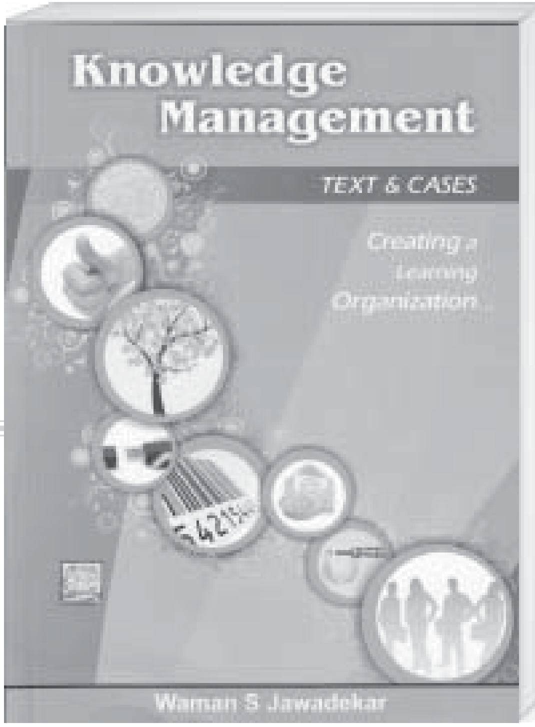
The final chapter "Towards A World Ethos" delivers a leadership message from Bhagavad-Gita. "Perform every work without having any attachment to result," which is of much relevance to the modern day managers.

Every chapter ends with an introspective exercise that will help students/professionals apply subject knowledge to their real life situations. Each chapter also quizzes students/ professionals to assess their understanding of key points discussed in that chapter.

Towards the end of the book are eleven cases to help students / professionals analyze real world scenarios. These cases are real life examples of moral leadership, spirituality at work, environment conservation initiatives and value based education which is very inspiring and thought-provoking.

Skimming and Scanning

Book Title : *Knowledge Management*
Text & Cases Creating a Learning Organization...
Author : Waman S. Jawadekar
Edition : 2011
ISBN-13 : 978-0-07-070086-4
Pages : 336
Publisher : Tata McGraw-Hill Publg. Co. Ltd., New Delhi.



This book is definitely a kaleidoscope. The author gives a snapshot of multiple subjects without going into the details of any. Therefore it is useful for those who have read extensively on the theme of knowledge management and would like to have a quick revision of the issues covered. The book is certainly not recommended for the first time reader.

A snapshot definition of Knowledge Management (KM) is the *systematic and explicit management of knowledge related activities, practices, programme and policies within the organization to produce competitive quality of knowledge and its efficient and effective application in business management. The two main dimensions any business organization needs to apply are the financial and utilitarian impacts of KM.* The choice of which KM strategy to build and pursue is a function of strategic choice – should it be focused on technology, market, business direction, value proposition offered to customers, challenges or opportunities encountered?

Reviewed by Mr. Sudheer Sudhakaran, Associate Professor, SCMS-COCHIN, Prathap Nagar, Muttom-683106, Ernakulam, Email: sudheer@scmsgroup.org

The ability to identify knowledge that would result in high economic value is a high order skill which the organization should distribute in several locations with experts and in servers and other repositories. It is through a *know-ledge audit* that the company is able to identify what knowledge exists in the organization and what is needed to move the organization in a strategic direction. Testing know-ledge for its vitality is the filter for what needs to be kept, archived or removed.

The business agenda is to recognize the character of the knowledge that strategically drives the organization for a sustainable competitive advantage – is it Tacit Knowledge or is it Explicit Knowledge?

For explicit Knowledge the dominant anchor remains with the IT department that has to fulfil its objectives through ICT interventions in a learner centric environment that takes into account the learner's current level of knowledge, digital literacy, attitudes and beliefs and access to the ICT platform. KM Technology is not a single solution but a group of tools based on groupware, expert systems, artificial intelligence, library science, document management, web and so on.

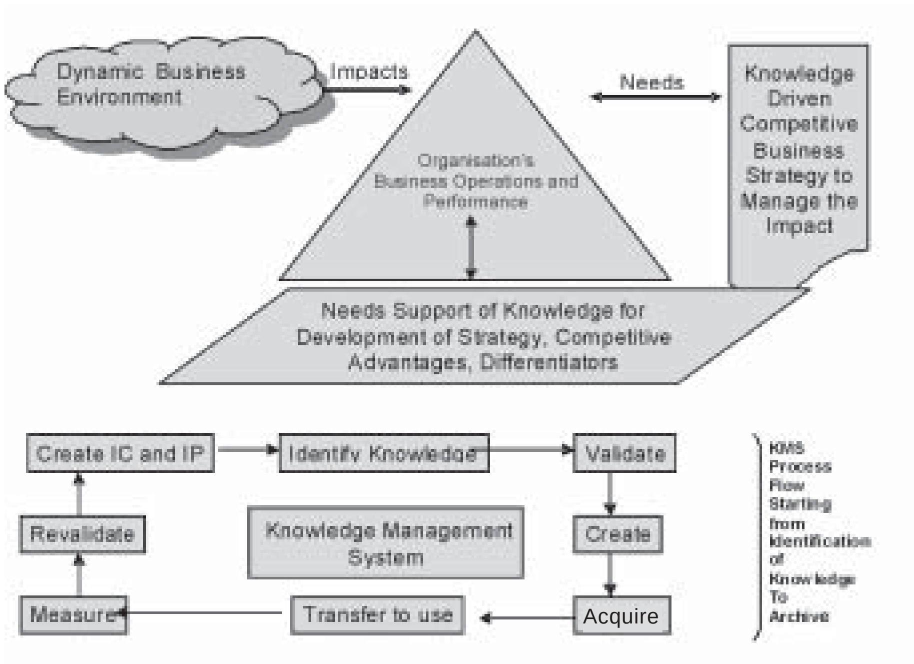
If tacit knowledge is the key dominant driver then the role of HR is extremely critical. Which company can afford not to bring in socialization platforms to ensure that tacit knowledge is converted to explicit knowledge and internalized by other users?

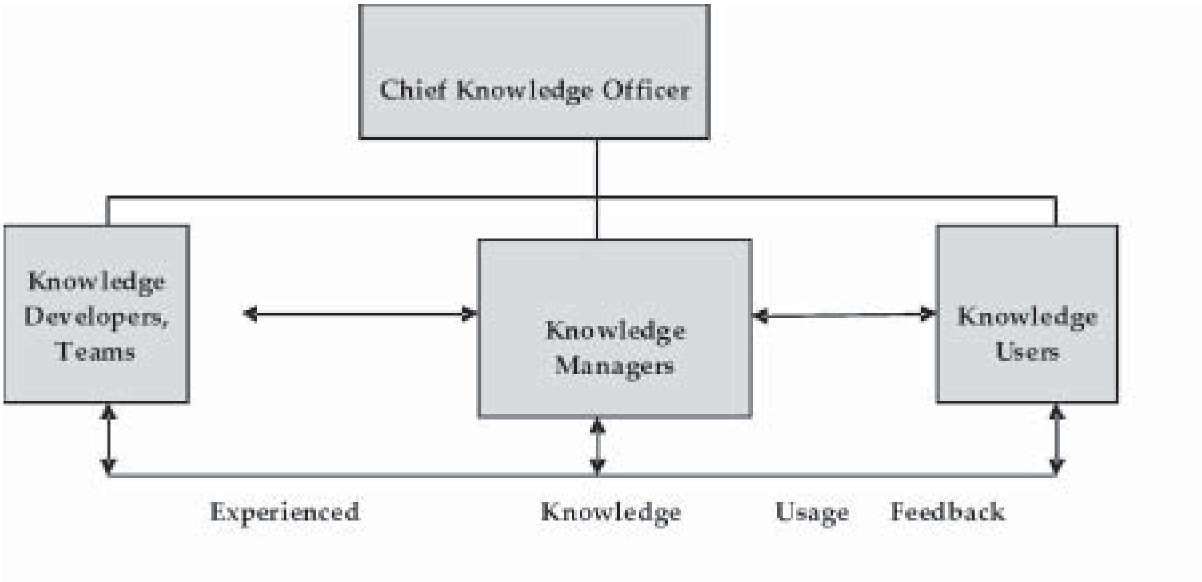
Whether it is tacit or explicit knowledge - in both cases - *the command and control work culture needs to be replaced by collaborative, participative network based work culture where the key is knowledge sharing.* The role of HR is to now build a learning organization that can be defined as an organization skilled at identifying, creating, acquiring, transferring, sharing and measuring the knowledge, taking it forward to a level of intellectual capital. It continues to modify its behaviour to reflect new knowledge and insights.

In another kaleidoscopic snapshot the author quotes Dr. Yogesh Malhotra saying that *KM caters to the critical issues of organizational adaptation, survival and competence in the face of increasingly discontinuous environmental change.* Essentially it embodies organizational processes that seek synergistic combination of data and information processing capacity of IT and the creative and innovative capacity of human beings.

Knowledge initiative is the first step towards KM in the organization which has two foci-knowing what you have and what you know; searching knowledge which you do not know. KM initiatives are justified for their economic, analytic or strategic benefits. Knowledge Management System (KMS) has two distinct cycles – a development cycle and an application cycle. KMS has the goal of identifying knowledge that ultimately is converted into intellectual capital and some part as intellectual property.

A Generic Model of the Knowledge Management System is given below followed by the people organization:





The integrated knowledge organization has three components: People, Process and Drivers.

a) People organization with Chief Knowledge Officer, knowledge teams, knowledge users
b) Process – Identify, validate, create, organize, store, measure, revalidate or improve
c) Drivers – Competition, business strategy, technology, work culture, threats to business

A knowledge map highlights location, shows the way to reach and also its best application.

The knowledge architecture requires that knowledge creation comes when people, processes and technology interact with each other. The architecture rests on knowledge areas, knowledge centers and knowledge owners.

The author takes us through the project management sequences in implementing the same. *The caution points are for HR to design reward and recognition systems to ensure the KMS becomes part of the new culture in the organization.*

The challenges required to overcome for successful implementation are:

1) Moving people form information driven processes to knowledge driven processes.

2) *The most difficult challenge is to create trust in tacit knowledge.*

3) It takes time and effort to sell KM in the organization when it is handled by a separate knowledge management function, headed by a Chief Knowledge Officer.

4) Knowledge users believe that KM is a technology and unless one is a master in the technology success is doubtful.

5) Sufficient time needs to be given to knowledge workers to develop practice of using stored knowledge, knowledge assets and knowledge products.

6) Another difficult challenge is to prepare the organization in technology to take up the challenge of paradigm shift from being information driven to being knowledge driven.

7) Changing traditional individual work culture to work group culture is the toughest challenge amongst all stated so far.

8) The challenge is convincing people about collaboration as a tool for innovation

9) Changing the mindset of key personnel to share their

tacit as well as explicit knowledge for organization's well being.

10) The last and most important challenge is the need of continuing research and improvement in Knowledge Development Cycle.

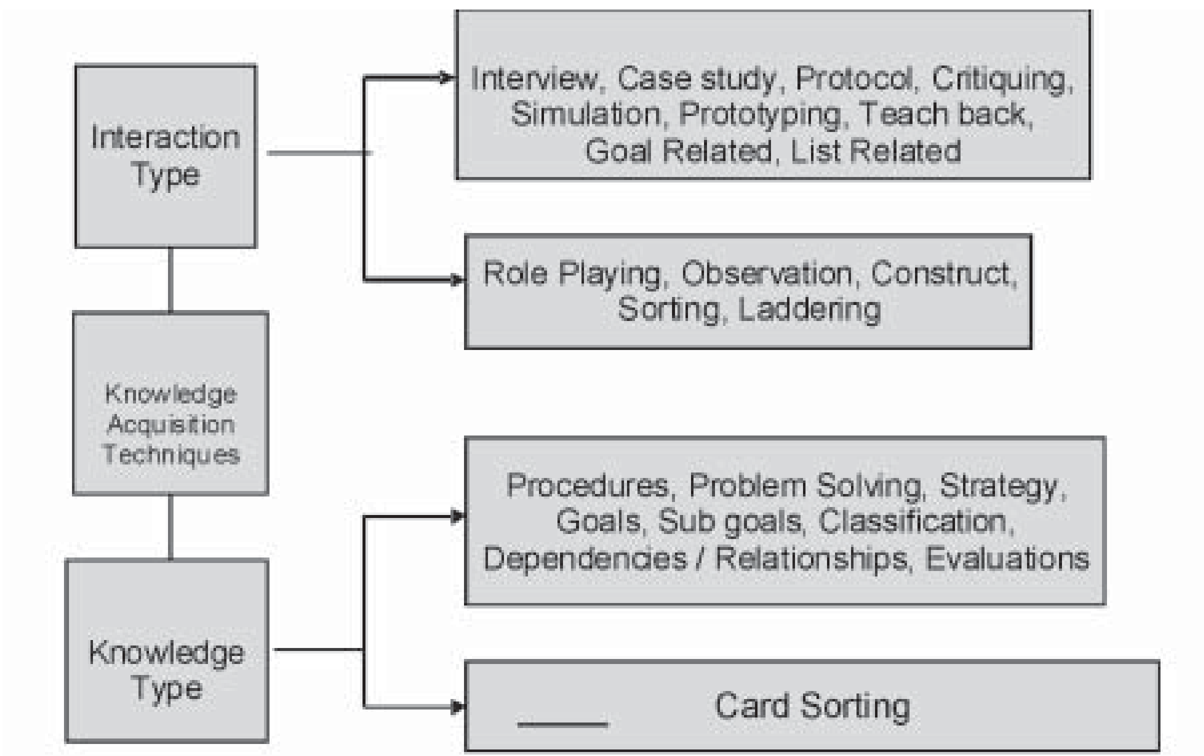
Top management must recognize and accept KM to be a cultural change in which they must ensure that fears of insecurity are dealt with. This fear results from the loss of power and respect that comes with parting with long held knowledge. Bureaucratic style of functioning now makes way for knowledge driven functioning.

Inhibitions to knowledge sharing are related to issues of compensation, recognition, ability to articulate, job security, no challenge to power, lack of proper support structure, and lack of conductive work culture.

Organizations have to develop a change management plan that would address the new mindsets to be inculcated. The new mindsets include sharing without reservation, transparent working, proactive response, etc. *The history of organizations that have implemented KM testifies that the organizations itself becomes leaner and flatter.* The critically important enablers of KM are leadership, work culture and management thrust.

The learning tools and technologies required for knowledge driven collaborative working are artificial intelligence, expert systems, data warehousing and mining, case based reasoning, intelligent agents, association rules and neural networks. The author emphasizes that data visualization is absolutely important for bringing out meaningful usage of the data. Processing sales data of butter with sales data of bread is an example of bringing clarity in structure, relationship and meaning.

The Knowledge Acquisition Techniques (KAT) Tree is a guide to the methods available for use and is summarized in the following table:



Lew Platt of Hewlett Packard goes on to say *"successful companies in the 21st century will be those who do the best job in capturing, storing and leveraging what their employees know."*

Knowledge portals are a web based solution for closing this gap. Three well known models for knowledge creation discussed by the author are OODA Loop Model, The SECI Model and the Oinas-Kukkonen Model. The author touches upon the integrated Trilogy Model. The three processes at the heart of this Trilogy model are observation and orientation, adaptation and absorption, and manifestation and substantiation. Knowledge portals have the following basic architecture:

User Interfaces for Access and Navigation	Access Layer
Personalization	Personalization Layer
Process Team Work Document Management	Support and Service Layer
Function Execution and Management	Execution Layer
Subject Content, Information, Knowledge	Data Layer

The kaleidoscope closes with many case illustrations on the subject of Knowledge Management Systems. One such example is Arghyam - a portal set up by Ms Rohini Nilekani to promote sustainability efforts in the water sector for India.

It is ironical that a book on knowledge management taxes the patience of its readers with a plethora of spelling and editing mistakes! However the author has written the end notes for each chapter very well and this is the saving grace of the book.

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.

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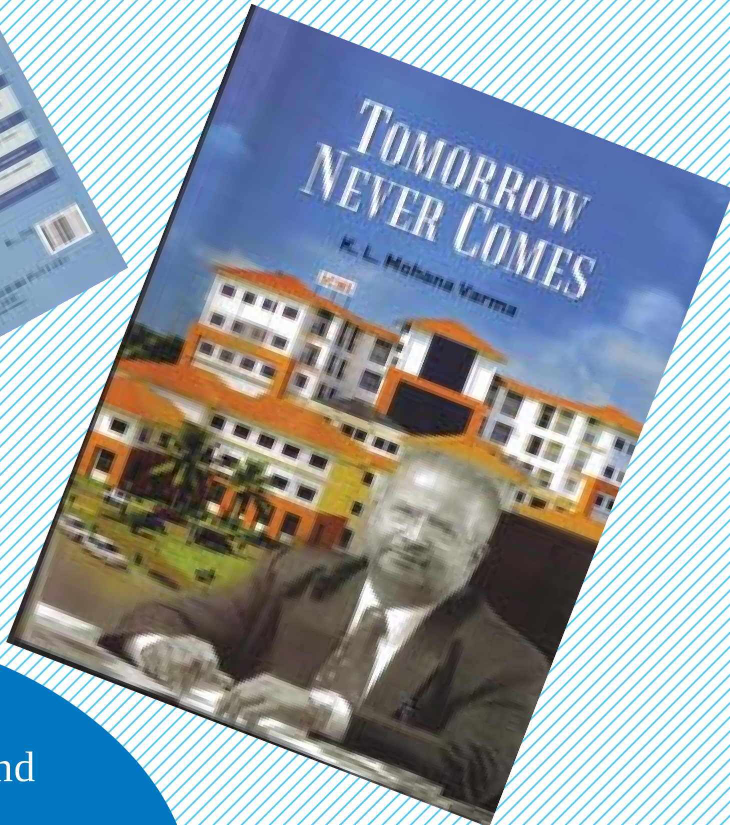

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