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# Prestige International Journal of Management and Research

The International Journal provides a forum for interdisciplinary discussion and attempts to serve as a bridge between the scholar and the practitioner. The main aim is to keep readers abreast of developments and new techniques in all articles in any functional area of management. Empirical studies are desired especially from comparative cultural point of view. Its ambit includes a clear focus on the practical problems and their effective solutions in business enterprises as well as socially oriented non-profit seeking organisations and institutions. The case studies, besides evaluative review of literature are also included in the journal.

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## A STUDY OF CRITICAL FACTORS OF ORGANIZATIONAL CULTURE IN INDIAN ORGANIZATIONS

Shyam Narayan\* and Santosh Rangnekar\*\*

*The study is based upon the original data collected from the middle and senior level executives of selected Indian organizations. The paper compiles the concept of organizational culture and explains the impact of different factors of organizational culture in the Indian organizations. The literature on organizational culture was surveyed. A sample of 286 middle and senior level executives was surveyed on the OCTAPACE profile scale from the select Indian organizations to get their response on the organizational culture. The responses were analyzed for factor analysis and the results were interpreted with the available literature. The executives exercised their autonomy and were found to be highly motivated. Close supervision was rejected and more freedom was preferred. The environment of trust gets created through strong interpersonal contacts. The free interaction and sharing of information encourages opportunity for knowledge management practices. The executives are keen in finding out the solutions to the problems by facing them and accepting them as challenges. Change management and taking corrective actions on feedback practices are encouraged. Organizational culture is associated with a wide variety of practices. The findings will be of direct use in designing training and development programs for executives. The socialization process in the organization develops trust among the stake holders.*

### INTRODUCTION

Culture is to a human collectivity what personality is to an individual. Culture could be defined as the interactive aggregate of common characteristics that influence a human group's response to its environment. Culture determines the identity of a human group in the same way as personality determines the identity of an individual. Organizations may develop their own unique cultures that differentiate them from other organizations within the same industry or society. No organization can operate in isolation from its cultural environment (Hofstede, 1980). In other words, organizations are social systems that must inevitably operate to survive within the frame work of a larger cultural system. Managers in organizations come from different cultural back grounds. They have different beliefs, customs, understandings and preferences. Managers should not impose a style blindly on any organization. Attempts should be made to evolve a management style that is in harmony with the culture of the specific economy. An organiza-

tion's culture has different characteristics like individual autonomy, the rules and regulations, systems of direct supervision, superior and subordinate relationship, holistic view of the organization, performance-rewards systems, conflict tolerance and risk tolerance, etc. According to James and Jones (1974), in organizational context management philosophy is evident from the goals, policies and functions of the organizations. The organizational structure of a company also represents management philosophy.

The organizational design is influenced by power-based culture, role based culture, supportive culture and achievement oriented culture (Prasad, 2005). Miles and Snow (1978), who recognized the potential of leadership in shaping the organizational culture, defined three typology, viz., defender organization, analyzer organization and prospector organization. The organizational designs are influenced by these typologies. The current market driven economy requires the organizations to reinforce their culture.

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The organizations have both strong and weak cultures. In a strong culture, values are intensely held and widely shared (Wiener, 1988). The maximum numbers of the managers accept the core values and they have higher commitment to those values. A strong culture has a great influence on the behavior of the employees and high degree of intensity to create an internal locus of control. A strong culture lowers employee turnover and shows high agreement amongst the employees of the organization. This builds cohesiveness, loyalty and organizational commitment (Mowday et. al., 1982). A strong organizational culture supports behavioural consistency and, as a result, it acts as a substitute for formalization. According to Robbins et. al. (2007), the formalization and culture of organization are two different roads to a common destination. The stronger the culture, the lesser is the need of developing formal rules. The research indicates that national culture has a greater impact on employees than on organization's culture. This means that national culture reflects more contribution in shaping employees' behaviour. Culture performs a boundary defining role which differentiates different organizations. A strong culture develops a sense of identity for organizational membership. It supersedes individual over general interest.

## **REVIEW OF LITERATURE**

Jaques (1952) in his book "The Changing Culture of a Factory" has conceptualized that organizational culture focuses on structure of human and emotional elements of organizational life. Organizations are sub-cultures of national cultural systems. Hofstede (2001) argued that different societies have different level of tolerance for uncertainty and these differences can be defined as a degree to which members of a culture feel threatened by ambiguity and risk. In low uncertainty avoidance culture, people are ready to accept innovative ideas, differences of opinion and eccentric or deviant behaviour, whereas in cultures of high uncertainty behaviour these things are resisted. Rules, regulations and controls are all the more acceptable to employees in high than in low uncertainty avoidance cultures. The author has claimed that or-

ganizations in these cultures have more formalization and standardization whereas organizations in cultures with weak uncertainty avoidance dislike rules and resist formalization and standardization. In his original study of IBM employees', uncertainty avoidance was highest in Greece, Portugal and Japan while it was lowest in employees from Singapore, Hong Kong and Sweden.

## **Organizational Culture – Individualism Vs Collectivism**

Individualism versus collectivism is a degree to which individuals in a culture are expected to act independently of other members of the society. In individualism versus collectivism, i.e. people living alone versus people living together, the belief of personal relationship also varies. In United States, individualism is seen as a source of well being whereas in India, China and other like cultures, individualism is seen as undesirable and alienating. According to Hofstede (2001), tasks take precedence over relationships in organizations from individualistic culture to collectivism culture. Hofstede and Bond (1988) in their study on long term versus short-term orientation described that high long term orientation scores indicate that hard work will lead top long term rewards and also that it may take longer to develop business in these countries. The short-term orientation culture of the organizations represents small challenges and fewer commitments.

## **Employability Skills**

Estienne (1997) examined the organizational cultures which develop employability for its employees. The culture must not only create a climate of challenge for employees but also motivate and empower them. The second characteristic of an organizational culture which encourages employability would be that it values and rewards learning as a vehicle for change. These qualities develop skills of motivation and commitment required in the process. The organization supports employee ambitions and career ownership. In the case of a person culture, the most appropriate model is what could be called as fishnet organization (Swigart, 1995). It describes an organization which is formed by

fluid teams and interdependent structures. The organizational culture which encourages career ownership and employability provides empowerment to the employees and motivates them towards achievement as well as sense of belongingness. Synchronous and asynchronous communication modes largely prevalent in the organization (Cho et al., 2008) and other such communication modes improve employees' commitment towards organization (Birasnav and Rangnekar, 2009).

## METHODOLOGY

*The Study:* The study identifies the factors and understands their relationships affecting the organizational culture in selected Indian organizations.

*The Sample:* The study is based upon the analysis of 286 samples from the selected Indian organizations. The demographic profile of the respondents is given in Table 1.

*Tools for Data Collection:* A standardized scale OCTAPACE Profile Scale (OC) was administered on each subject of the sample. OCTAPACE Profile Scale by Udai Pareek (2002) consisting of forty item instruments was used.

The scale yields the profile of organization's ethos in eight factors. These factors are – Openness, Confrontation, Trust, Authenticity, Proaction, Autonomy, Collaboration and experimentation. Scoring was done manually. Responses are in terms of selecting highly valued (4), if it is given a fairly high value (3), if it is given a rather low value (2) and if it is given a very low value(1).

*Tools for Data Analysis:* Inter item analysis was used to analyse the collected data and a total of 8 factors emerged.

## RESULTS AND DISCUSSION

Each factor of OCTAPACE scale contains 5 items with the possible score of a minimum of 5 and a maximum of 20. The total respondents were 286 in number. As a result, for each factor the range of score is 1430 to 5720. The authenticity factor has been found lowest (3559/5720, 62.22 percent) while proaction factor has been found highest (4501/5720, 78.69 percent)

amongst all the other factors of the scale (Figure 1). The other factors have been responded in the range of 3562 to 4191 (Figure 1). In the organizational culture, the practices for preventive action are encouraged because of strong competitiveness in the market. Also the influence of economic recession in the current scenario cannot be ignored. The confrontation and trust factors were found to be more conducive with openness and collaboration. The experimentation (3915/5720, 68.44 percent) in Indian context is less practiced as compared to other factors.

The autonomy factor (62.27 percent) of the OCTAPACE scale was found higher than authenticity factor (62.22 percent) (Figure 1). This finding is in agreement with the earlier western studies where supportive cultures were predominantly associated with higher levels of job satisfaction and performance, while bureaucratic culture did the opposite (Brewer and Krausz et al., 1995; London and Larsen, 1999; Silverthorne, 2004; Trice and Beyer, 1993). In another similar study, Rashid, Sambasivan and Johari (2003) found that a supportive culture positively influences affective commitment, whereas an entrepreneur (innovative) culture did otherwise. In our study, the items - independent action (70.45 percent) and motivation through autonomy (76.66 percent) have received higher responses to strengthen the autonomy factor of the OCTAPACE scale.

On inter-item analysis of the openness factor (Figure 2), it was found that the solving problems through effective communication item was responded with the maximum score (954/1144, 83.39 percent), as compared to free interaction (907/1144, 79.28 percent), free communication (882/1144, 77.10 percent), sharing of information (845/1144, 73.86 percent) and non-expression of feelings (603/1144, 52.71 percent). The respondents have shown good interpersonal relationship between superior and subordinates through free and effective communication. The free interaction and sharing of information also encourages opportunity for knowledge management practices. Respondents have interestingly shown least score for non-expression of feelings.

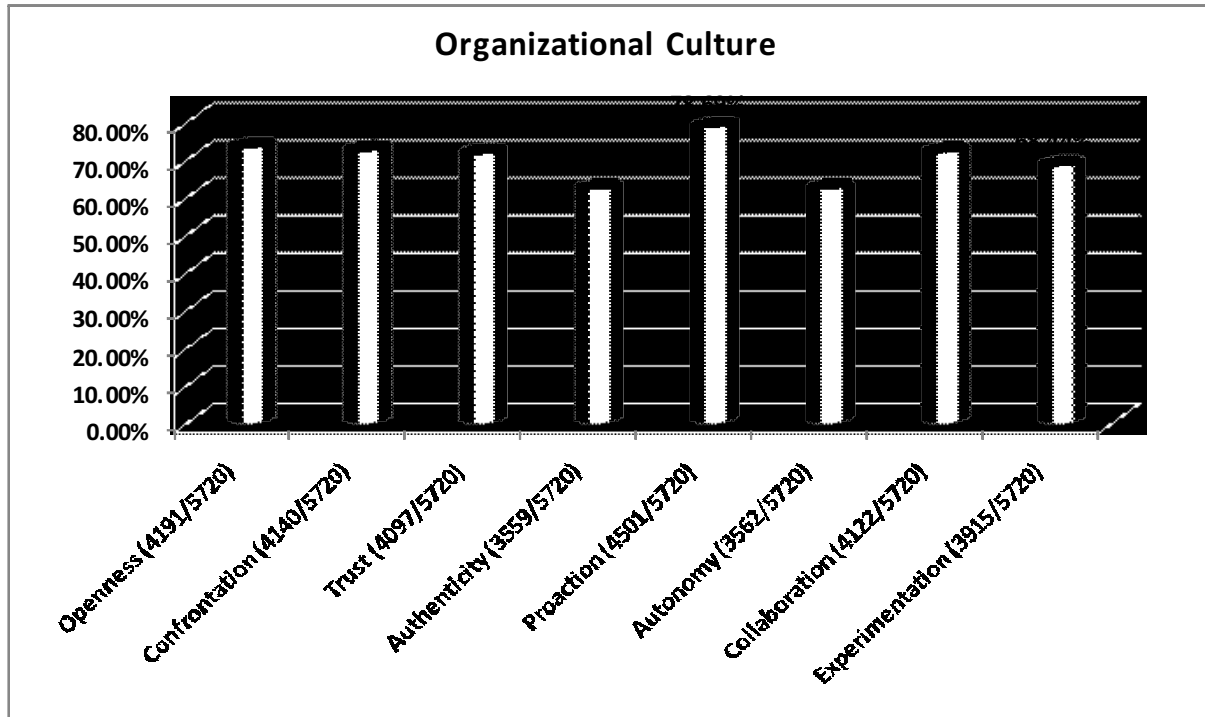


Figure 1: Factors of OCTAPACE Scale

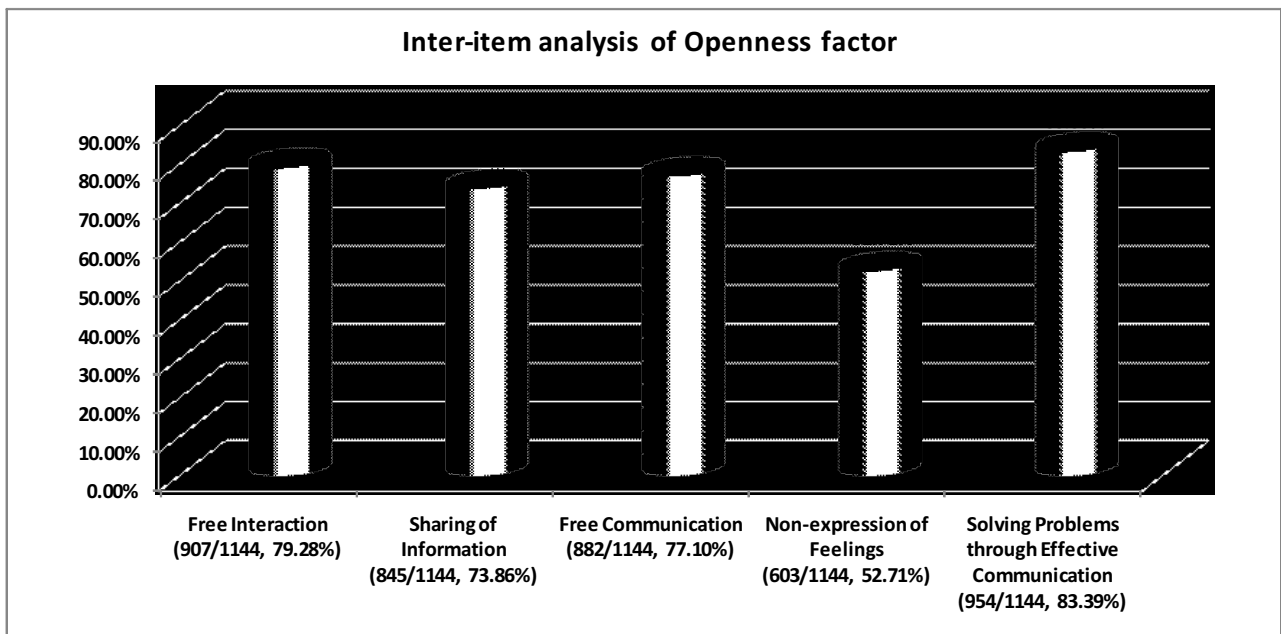


Figure 2: Items of Openness Factor of OCTAPACE Scale



On inter-item analysis of the confrontation factor (Figure 3), it was found that the solutions to the problems item was responded with the maximum score (925/1144, 80.86 percent), as compared to facing problems (876/1144, 76.57 percent), facing challenges (841/1144, 73.51 percent), in-depth analysis (763/1144, 66.70 percent) and passing buck (735/1144, 64.25 percent). The respondents were more keen to finding out the solutions to the problems by facing them and accepting them as challenges. The tendency to pass the buck upon was found to be the least. The chances of the confrontation were less as the respondents were sincere to bear their responsibilities.

On inter-item analysis of the trust factor (Figure 4), it was found that the moral support item was responded with the maximum score (930/1144, 81.29 percent), as compared to trust building (909/1144, 79.46 percent), interpersonal contacts (824/1144, 72.03 percent), trust in seniors (778/1144, 68.01 percent) and crisis management (656/1144, 57.34 percent). The moral of the respondents was found on a higher side. An environment of trust building was created through strong interpersonal contacts. However, the respondents have shown least ability to manage crisis.

Analysis of the authenticity factor (Figure 5), after inter item analysis showed that the congruity item was responded with the maximum score (782/1144, 68.36 percent), as compared to owning up to mistakes (751/1144, 65.65 percent), honesty of people (742/1144, 64.86 percent), avoiding unpleasant truth (669/1144, 58.48 percent) and tactfulness (615/1144, 53.76 percent). The respondents exhibited high congruity i.e., they showed minimum gap between what they said and did. They were found less tactful to get the jobs done. The respondents avoided telling the unpleasant truth.

Inter-item analysis of the proaction factor (Figure 6), it was found that the prevention item was responded with the maximum score (969/1144, 84.70 percent), as compared to time management (896/1144, 78.32 percent), pros & cons of actions (882/1144, 77.01 percent), preventive action (878/1144, 76.75 percent) and subordinate encouragement (876/1144, 76.57 percent). The respondents

preferred prevention and preventive action which is also justified through problem solving approach of confrontation factor.

On inter-item analysis of the autonomy factor (Figure 7), it was found that the motivation through autonomy item was responded with the maximum score (877/1144, 76.66 percent), as compared to independent action (806/1144, 70.45 percent), freedom breeds indiscipline (718/1144, 62.76 percent), close supervision (590/1144, 51.57 percent) and obeying seniors (571/1144, 49.91 percent). The respondents were found to be highly motivated and exercised their autonomy; as a result obeying seniors was given least weight-age. The close supervision was rejected and more freedom was preferred by the respondents.

Inter-item analysis of the collaboration factor (Figure 8), it was found that the employees' involvement item was responded with the maximum score (965/1144, 84.35 percent), as compared to team work (954/1144, 83.39 percent), acceptance of help (895/1144, 78.23 percent), dilution of individual accountability (678/1144, 59.27 percent) and immediate performance (630/1144, 55.07 percent). Where as the inter-item analysis of the experimentation factor (Figure 9), revealed that the new look on work item was responded with the maximum score (866/1144, 75.70 percent), as compared to organization's vitality (863/1144, 75.45 percent), innovativeness (821/1144, 71.77 percent), corrective actions on feedback (804/1144, 70.28 percent) and consolidation and stability (561/1144, 49.04 percent).

The openness factor of OCTAPACE scale was found to be 73.27 percent (4191/5720). Sharing of information amongst employees connects them to the organization as well as becomes an essential element of job involvement and managerial effectiveness. Gray and Laidlaw (2002) and Smidts, Pruyn, and Riel (2001) commended that openness refers to the commitment of the employees to carry out organizational goals. Brunetto and Farr-Wharton (2004) also supported that quality of communication results into managerial effectiveness. An organization's vision is communicated by managers to the employees and the employees' job involvement enhances (Dale, 1999; Juran and Gryna, 1993; Zhang, 1999).

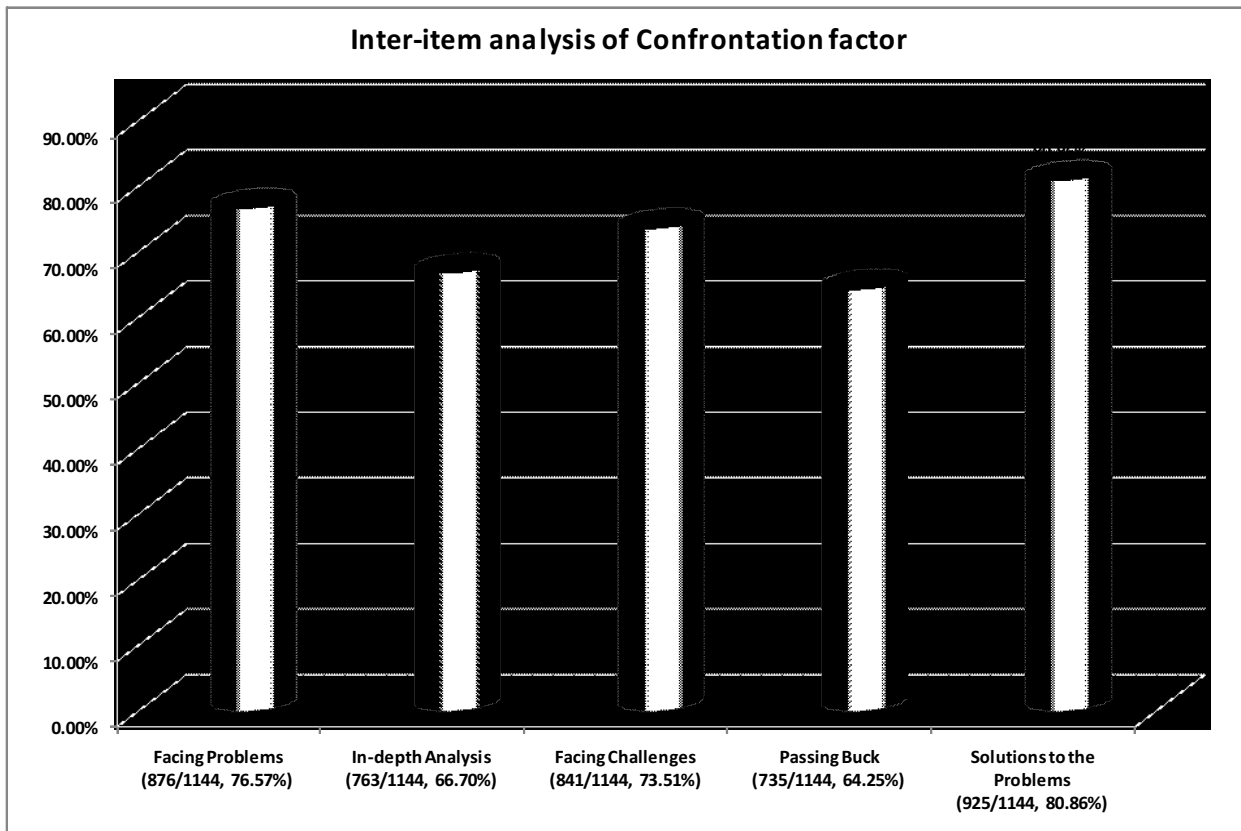


Figure 3: Items of Confrontation Factor of OCTAPACE Scale

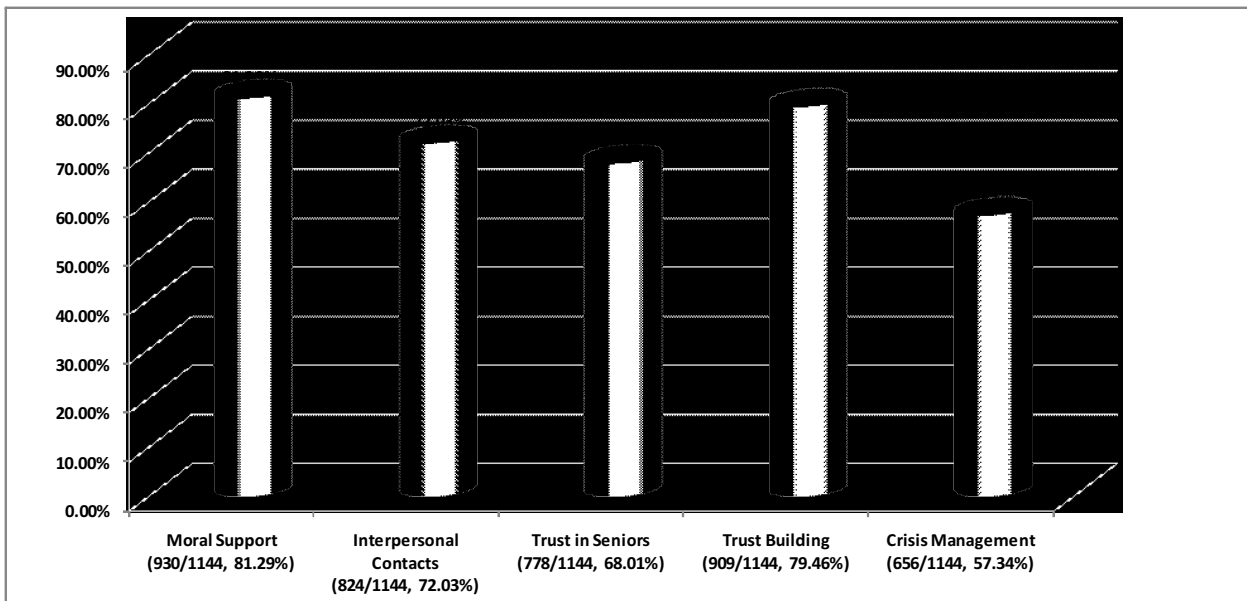
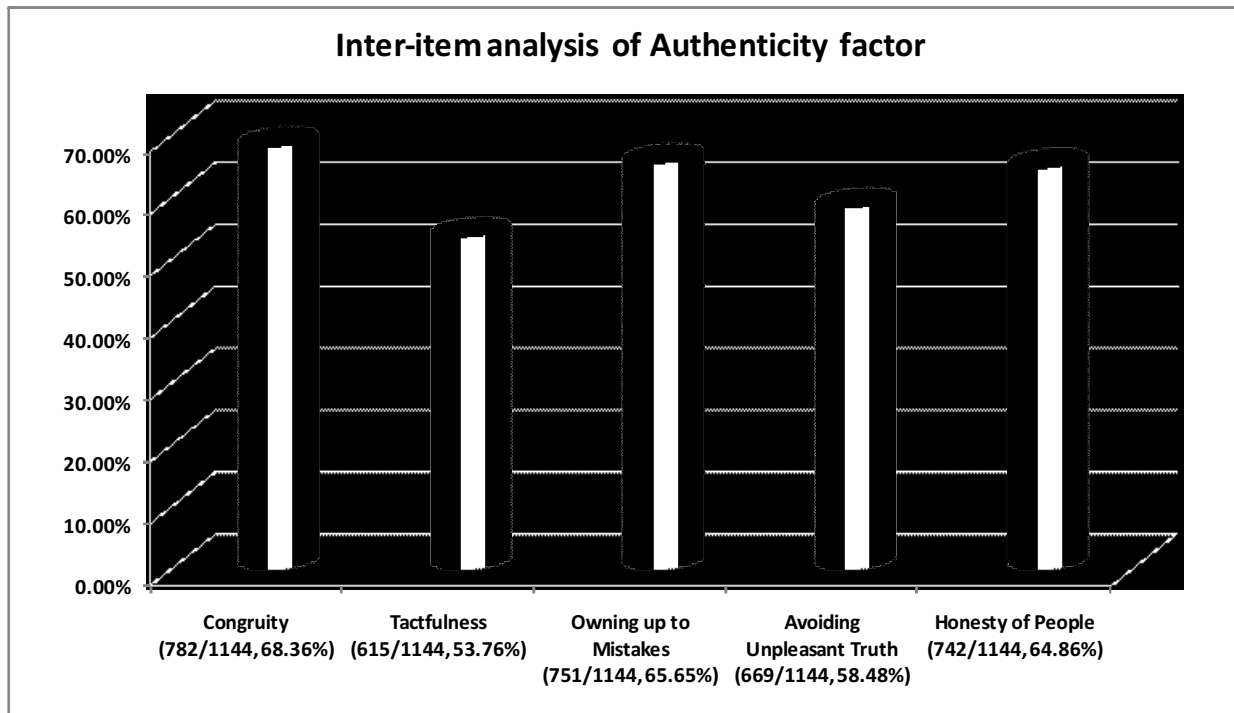
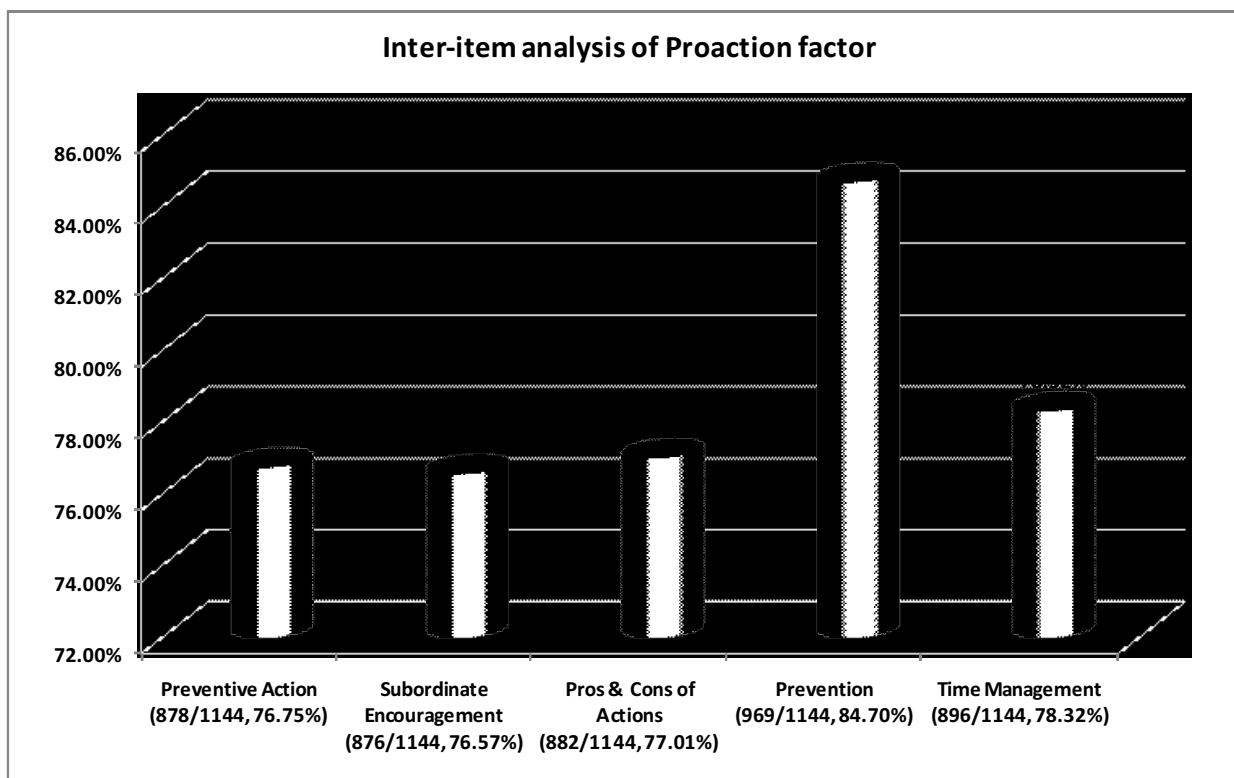


Figure 4: Items of Trust Factor of OCTAPACE Scale



*Figure 5: Items of Authenticity Factor of OCTAPACE Scale*



*Figure 6: Items of Proaction Factor of OCTAPACE Scale*

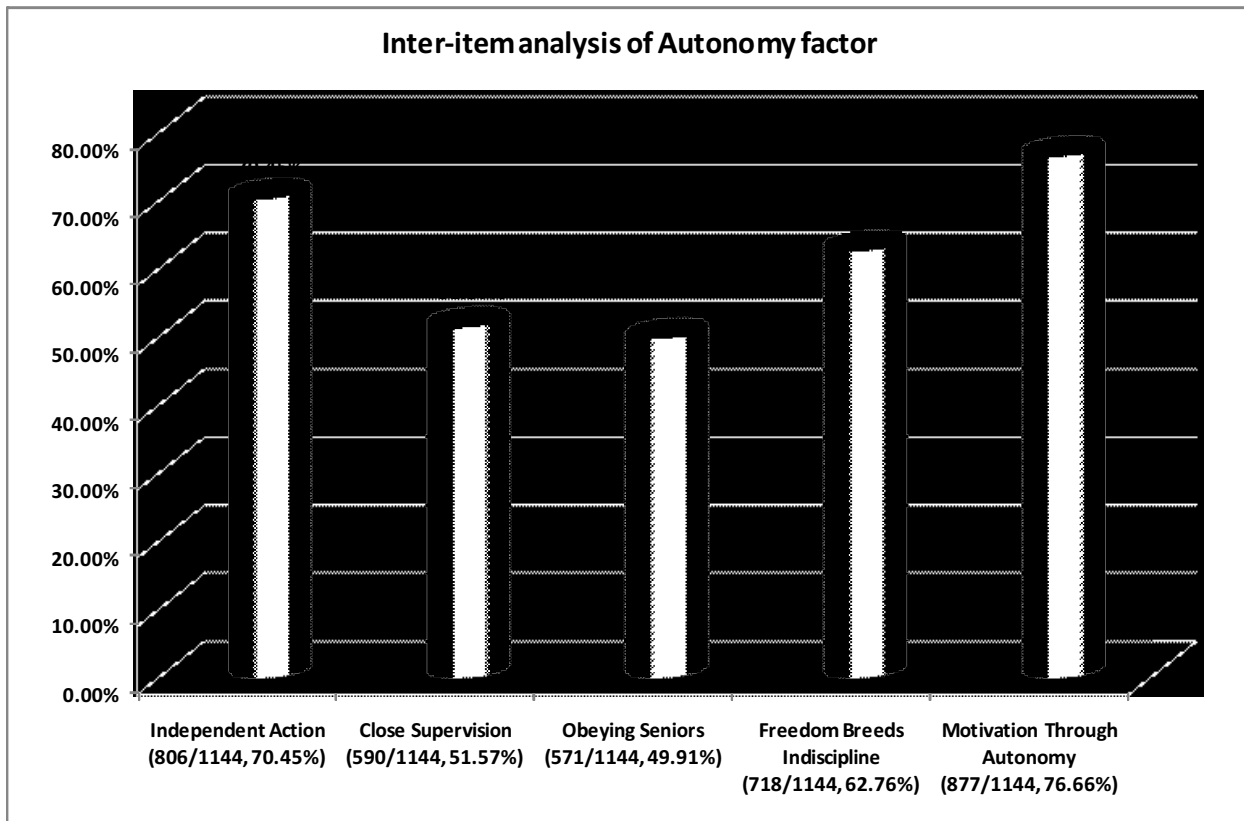


Figure 7: Items of Autonomy Factor of OCTAPACE Scale

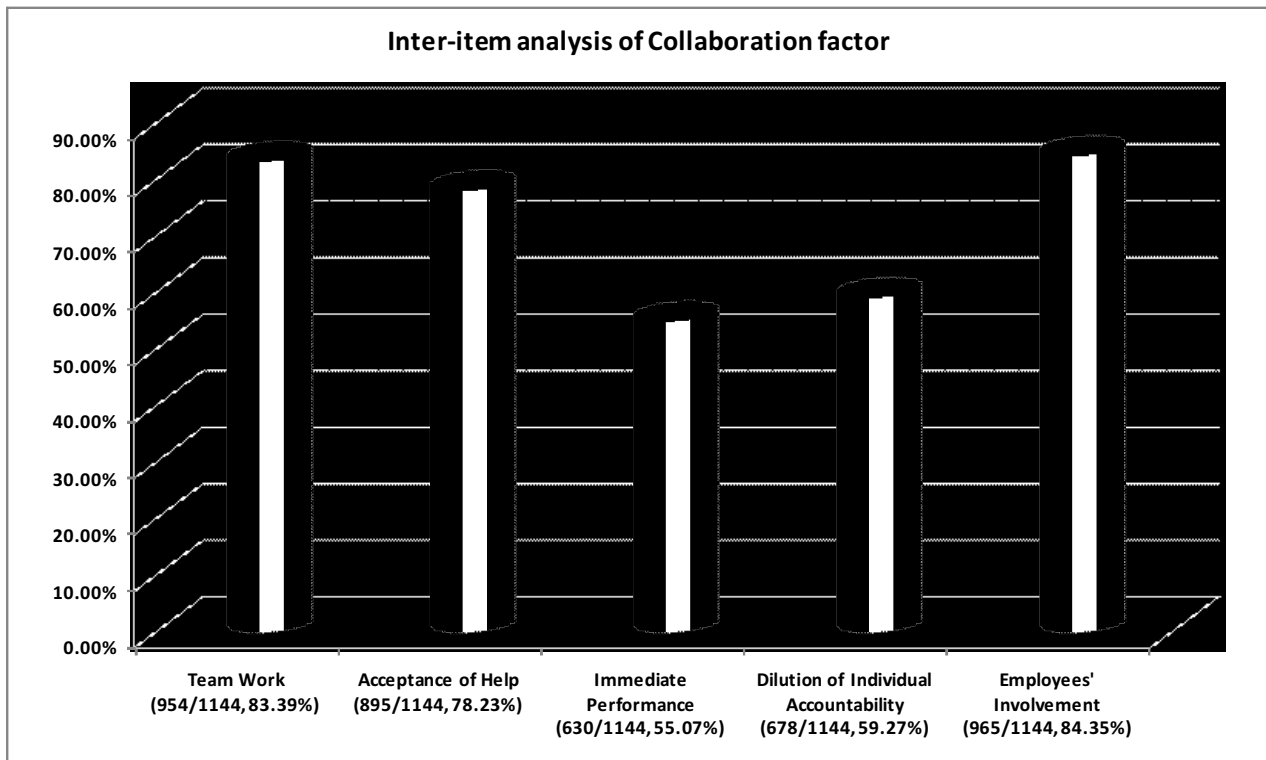
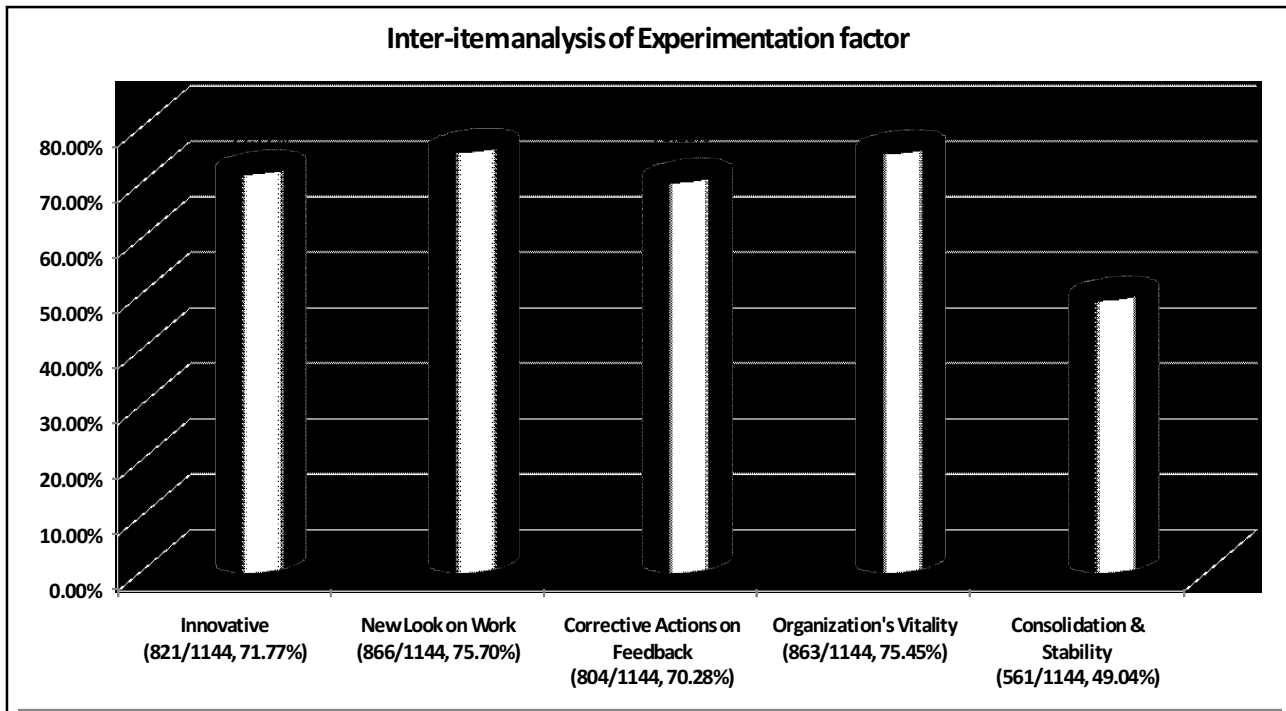


Figure 8: Items of Collaboration Factor of OCTAPACE Scale



*Figure 9: Items of Experimentation Factor of OCTAPACE Scale*

The collaboration factor of the OCTAPACE test has been found 72.06 percent (4122/5720). The respondents have shown high concern for team work as an important factor to organizational culture. The literature strongly supports team work as a significant key to productivity and employees' job involvement at work place (Adebanjo and Kehoe, 2001). Team work facilitates the meeting of affiliate needs within the work place and has been directly connected to job involvement (Karia and Ahmad, 2000). Case study conducted by Osland (1997) in Central America concluded that working together lead to better employee attitudes. Anschutz (1995) supported by stating that participation in team work achieves a success at work place for managers. Team work also results in more committed and involved employees within the organization (Silos, 1999).

In the present study, the communication in item numbers 17 and 33 of the OCTAPACE scale were significantly responded as 882/1144 (77.09 percent) and 954/1144 (83.39 percent) respectively. The results strongly indicate that communication in organizations supported free discussion between seniors and subordinates and also helped in solving problems. Communication is important for improving employees' job involve-

ment and for positive outcomes (Goris, Vaught, and Pettit, 2000; Pettitt, Goris, and Vaught, 1997; Guimaraes, 1996). The experimentation was to be allowed in an organization to encourage managerial effectiveness and to create a culture of adaptability amongst the work force. However, we the risk associated with experimentation cannot be ignore. The organizational culture with experimentation also creates learning atmosphere amongst the managers. The experimentation can also lead to failures and downsizing of the manpower (Estienne, 1997). Trust and decision making styles protect the negative feelings in the organization. The autonomy in the organizations is not much preferred (62.27 percent, 3562/5720) similar findings have been reported by Analoui (1999) on senior managers in Ghana. He reported that in the organizations there were fewer tendencies for decentralization and more emphasis on control and decision making. The delegation was less preferred and managers were not empowered to take the decisions. Distrust between the subordinate and manager was more apparent. The high degree of favoritism was reported and senior managers adhered to traditional management. Thus it can be said that autonomy is not preferred by most of the organizations. However, the success and failure of implications of

autonomy also vary from public sector to private sector organizations.

Fleet and Griffin (2006) in their study entitled *Dysfunctional organization culture: studied the role of leadership in motivating dysfunctional work behaviors* developed the argument that organizational cultures vary in their functionality in terms of contributing overall organizational performance and effectiveness. The dysfunctional organizational culture restricts the employees to perform and it also discourages to share the organizational rewards. The role of leadership is likely to help, create and perpetuate functional organizational culture. Smith (2000) suggested that dysfunctional organizational culture may be because of long emphasis on productivity, efficiency and lack of interpersonal skills.

## CONCLUSION

Thus, from the present studies it can be concluded that communication as a part of organizational culture enhances job involvement of the managers within their organizations. Sharing of information amongst employees connects them to the organization. The organizational communication can be the helping tool to create human capital. The employees' involvement in developing organizational mission and goals contributing to productivity was found to be highest. The respondents focused more on immediate performance as compared to long term organizational goals. The respondents have shown positive and encouraging response towards experimenting new look on work, to be innovative and tone up their responsibilities for organization's vitality. Change management and taking corrective actions on feedback practices have been encouraged rather than preference to consolidation and stability. Organizational culture requires commitment and involvement of managers for successful attainment of the organizational goals. An experimentation intended to accomplish the organizational goals develops new cultural aspects. There is a need for change of attitude and policies to encourage autonomy. A participatory approach will be useful to design a strategy of task and people management. It means that for a functional organizational culture an effective managerial approach is required. Stronger the "people" skills, effective will

be the managerial style and likely to result into functional organizational culture. Prevention and preventive actions are to be preferred by the managers to sustain the organizational culture.

## References

- Adebanjo, D. and Kehoe, D. (2001). An Evaluation of Factors Influencing Teamwork and Customer Focus. *Managing Service Quality*. 11, 49-56.
- Analoui, F. (1999). Eight Parameters of Managerial Effectiveness - A Study of Senior Managers in Ghana. *Journal of Management Development*. 18 (4), 362-389.
- Anschutz, E.E. (1995). *TQM America*. McGuinn & McGuinn Publishing, Bradenton, FL.
- Birasnav, M and Rangnekar, S. (2009). *A Study of Human Capital Creation Practices in Some Indian Manufacturing Industries*. Ph.D. Thesis. IIT Roorkee.
- Brewer, E.W. and Clippard, L.F. (2002). Burnout and job satisfaction among Student Support Services personnel. *Human Resource Development Quarterly*. 13 (2), 169-86.
- Brunetto, Y. and Farr-Wharton, R. (2004). Does the Talk Affect your Decision to Walk? A Comparative Pilot Study Examining the Effect of Communication Practices on Employee Commitment Post-managerialism. *Management Decision*. 42 (3/4), 579-600.
- Cho, N., Park, K. and Su, C. (2008). Effects of the Upward Influence Strategies on the Communication Media Selection. *Contemporary Management Research*, 4 (2), 137-154.
- Dale, B.G. (1999). Total Quality Management: An Overview. In Dale, B.G. (Ed.), *Managing Quality*, 3rd ed., Blackwell, Oxford.
- Estienne, M., (1997). An Organizational Culture Compatible with Employability. *Industrial and Commercial Training*. 29 (6), 194-199.
- Fleet, D.D.V. and Griffin, R.W. (2006). Dysfunctional Organization Culture: The Role of Leadership in Motivating Dysfunctional Work Behaviors. *Journal of Managerial Psychology*. 21 (8), 698-708.
- Goris, J.R., Vaught, B.C. and Pettit, J.D. (2000). Effects of Communication Direction on Job Performance and Satisfaction: A Moderated Regression Analysis. *Journal of Business Communication*. 37 (4), 348-68.
- Gray, J. and Laidlaw, H. (2002). Part-time Employment and Communication Satisfaction in An Australian Retail Organization. *Employee Relations*. 24 (2), 211-28.
- Guimaraes, T. (1996). TQM's Impact on Employee Attitude. *The TQM Magazine*. 8 (5), 20-5.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Sage Publications, California. 25-26.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations across Nations*. Thousand Oaks, Sage, California.
- Hofstede, G. and Bond, M.H. (1988). The Confucius Connection: From Culture Roots to Economic Growth. *Organizational Dynamics*. 16 (4), 14-21.

- James, L.R. and Jones, A.P. (1974). Organizational Climate - A Review of Theory and Research. *Psychological Bulletin*. 81, 1098.
- Jaques, E. (1952). *The Changing Culture of a Factory*, Dryden Press, New York.
- Juran, J.M. and Gryna, F.M. (1993). *Quality Planning and Analysis: From Product Development through Use*. McGraw-Hill, New York, NY.
- Karia, N. and Ahmad, A.Z. (2000). Quality Practices that Pay: Empowerment and Teamwork. *Malaysian Management Review*. 35 (2). 66-76.
- Krausz, M., Koslowsky, M., Shalon, N. and Elyakim, N. (1995). Predictors of Intention to Leave the Ward, The Hospital and The Nursing Profession: A Longitudinal Study. *Journal of Organizational Behaviour*. 16, 277-88.
- London, M. and Larsen, H. (1999). Relationships between Feedback and Self-Development. *Group and Organization Management*. 24 (1), 5-27.
- Miles, R. E. and Snow, C. C. (1978). *Organizational Strategy Structure and Process*. McGraw-Hill, New York.
- Mowday, R.T., Porter, L.W. and Steers, R.M. (1982). *Employee-Organization Linkages: The Psychology of Commitment, Absenteeism and Turnover*. Academic Press, New York.
- Osland, A. (1997). Impact of Total Quality Attitude Management and Training and Work Context on Attitude Supervisor. *International Journal of Organization Analysis*. 5 (3), 1-9.
- Pareek, U. (2002). *Training Instruments in HRD and OD*. 2<sup>nd</sup> Edition (Eleventh reprint 2008). Tata McGraw-Hill Publishing Company Limited, New Delhi.
- Pettitt, J.D., Goris, J.R. and Vaught, B. (1997). An Examination of Organizational Communication as a Moderator of the Relationship between Job Performance and Job Satisfaction. *The Journal of a Business Communication*. 34 (1). 81-98.
- Prasad, K. (2005). *Strategic Human Resource Management Text and Cases*. Macmillan India Ltd., New Delhi.
- Rashid, M.Z.A., Sambasivan, M. and Johari, J. (2003). The Influence of Corporate Culture and Organizational Commitment on Performance. *Journal of Management Development*. 22 (8). 708-28.
- Robbins, S.P., Judge, T.A. and Sanghi, S. (2007). *Organizational Behavior*. Pearson Prentice Hall, New Delhi.
- Silos, I.M. (1999). Employee Involvement – A Component of Total Quality Management. *Production & Inventory Management Journal*. 40 (1), 56-65.
- Silverthorne, C. (2004). The Impact of Organizational Culture and Person-organization Fit on Organizational Commitment and Job Satisfaction in Taiwan. *Leadership & Organization Development Journal*. 25 (7), 592-9.
- Smidts, A., Pruyn, A.Th.H. and Riel, C.B.M. van (2001). The Impact of Employee Communication and Perceived External Prestige on Organizational Identification. *Academy of Management Journal*. 49 (5), 1051-1062.
- Smith, G. (2000). *Work Rage: Identify the Problems, Implement the Solutions*. Harper Business, Toronto.
- Swigart, R. (1995). *Upsizing the Individual in the Downsized Organization*. Century Business Books, London.
- Trice, H.M. and Beyer, J. M. (1993). *The Cultures of Work Organizations*, Prentice-Hall, Englewood Cliffs, NJ.
- Wiener, Y. (1988). Forms of Value System: A Focus on Organizational Effectiveness and Cultural Change and Maintenance. *Academy of Management Review*. October, 1988. 536.
- Zhang, Z.H. (1999). Developing an instrument for measuring TQM implementation in a Chinese context. *SOM Research Report*. 99A48, University of Groningen, Groningen.

Table 1: Demographic Profile of the Respondents

Sr. No.	Variable	Number	Percentage	
1.	<b>Age (years)</b>	Less than 30	062	021.68%
		30-40	067	023.43%
		41-50	071	024.82%
		Above 50	083	029.02%
		Non-respondents	003	001.05%
		<b>Total</b>	<b>286</b>	<b>100.00%</b>
2.	<b>Gender</b>	Male	267	093.36%
		Female	017	005.94%
		Non-respondents	002	000.70%
		<b>Total</b>	<b>286</b>	<b>100.00%</b>
3.	<b>Qualifications</b>	Up to Graduate	178	062.24%
		Post Graduate	104	036.36%
		Doctorate	004	001.40%
		Non-respondents	000	000.00%
		<b>Total</b>	<b>286</b>	<b>100.00%</b>
4.	<b>Rank</b>	Middle level managers	133	046.50%
		Senior level managers	152	053.15%
		Non-respondents	001	000.35%
		<b>Total</b>	<b>286</b>	<b>100.00%</b>
5.	<b>Experience (years)</b>	Up to 10 years	090	031.47%
		11- 20 years	063	022.03%
		21 -30 years	077	026.92%
		Above 30 years	040	013.99%
		Non-respondents	016	005.59%
		<b>Total</b>	<b>286</b>	<b>100.00%</b>



## AN EMPIRICAL STUDY OF HRD CLIMATE IN THE SCHOOLS OF INDORE CITY

Deepa Katiyal\*

*Teachers in India are facing a challenging task as they have to strive to help students in acquiring proficiency as well as to act as good administrators in their organizations. Today's teacher work in an environment that requires them to meet multi expectations from students, parents, principals and also from the community. At present, many cases have been observed relating to stress, depression amongst teachers, which may further affect the engagement level and the commitment level in the schools. Teaching is a profession, which involves high level of commitment as it may affect the future of students and, thus finally the future of the nation. The work environment in schools is comprised of varied dimensions, in which HRD Climate plays an important role. The present study explores the status of HRD Climate in affiliated schools of Indore city. Beside, it also highlights the effect of demographic variables on the perception of teachers towards HRD Climate.*

### INTRODUCTION

Human resource development climate is an integral part of organizational climate. It can be defined as perceptions the employee can have on the developmental environment of an organization. Rao and Abraham, (1986) have given the required elements of HRD climate as faith in the capability of employees to change and acquire new competencies at any stage; encouraging risk-taking and experimentation and communication; making efforts to help employees reorganize their strengths and weakness through feedback; a tendency on the part of employees to be generally helpful, team spirit and trust; and supportive personnel policies, human resource development practices including performance appraisal, training, reward management, potential development, job-rotation career planning etc. Human resource development climate contributes to the organizations wellbeing and self-renewing capabilities resulting in increasing the enabling capabilities of individuals, team and the entire organization. HRD climate can be grouped as general climate, OCTAPAC culture and HRD mechanisms. An organization that has better HRD climate and processes is likely to be more effective than an organization that does not have them.

School climate refers to the heart and soul

of a school it includes, psychological and institutional attributes that give a school its personality. It reflects a relatively enduring quality of the entire school experienced by members, which describes their collective perceptions of routine behaviour, and affects their attitudes and behaviour in the school (Hoy and Miskel, 1987). HRD climate can be defined for the school context as a relatively enduring, pervasive quality of the internal environment of a school experienced by teachers and learners that influences their behaviour and proceeds from their collective perceptions.

Hoy and Tarter (1992) summarized the characteristics of a good HRD Climate school as follows: A school is a pleasant place. It is protected from unwarranted intrusion (high institutional integrity). Teachers like the school, the students, and each other (high teacher affiliation). They see the students as diligent in their learning (high academic emphasis). They see the principal as their ally in the improvement of instruction; the principal is approachable, supportive and considerate, yet establishes high standards of teacher performance (high collegial leadership). Teachers rely upon the principal to foster a structure in which learning can take place and at the same time, to be a leader who is sensitive to the social and emotional needs of the group. The principal has influence

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with organizational superiors and is seen by the teachers as someone who delivers the teaching resources they need (high resource influence). A healthy and conducive climate of the school has no need for forced co-operation; because committed professionals cooperate naturally and are in basic agreement about the task at hand.

## OBJECTIVES OF THE STUDY

In the study focus has been laid down on analyzing the effect of demographic variables like age, gender, education, experience, income on the perception of teachers about HRD Climate. Besides this, the effect of service status and board of school have also been considered as independent variable in the study.

## METHODOLOGY

**The Study:** The present study is analytical in nature which analyses the perception of teachers towards HRD Climate in the school on the basis of demographic variables.

**The Sample:** The sample consisted of school teachers working in CBSE and MPBSE schools in Indore city. The sample size was 312 teachers working in public as well as private schools.

**Tools for Data Collection:** For the purpose of data collection a self designed questionnaire based on Likert scale (5- Strongly Agree to 1- Strongly Disagree) was used. The questionnaire has been developed in different stages. In the initial stage, items relating to HRD Climate have been taken on the basis of detailed review of literature which was followed by expert comments. Experts were basically academicians, professionals and researchers in the Human Resource area.

**Tools for Data Analysis:** The detailed descriptive analyses was done with the help of SPSS 16.0. The data was analyzed on the basis of null hypothesis using frequency analysis, mean value and standard deviation.

## RESULTS AND ANALYSIS

The descriptive analysis was done in which eight independent demographical variables and HRD Climate as dependent variable was taken for research. The analysis was done using eight null hypothesis as mentioned below:

## Hypotheses

**H<sub>01</sub>:** There is no significant effect of age on the perception of teachers towards HRD Climate in the schools.

**H<sub>02</sub>:** There is no significant effect of gender on the perception of teachers towards

Performance and Reward System in the schools.

**H<sub>03</sub>:** There is no significant effect of education level on the perception of teachers towards HRD Climate in the schools.

**H<sub>04</sub>:** There is no significant effect of experience on the perception of teachers towards HRD Climate in the schools.

**H<sub>05</sub>:** There is no significant effect of experience in the same school on the perception of teachers towards HRD Climate in the schools.

**H<sub>06</sub>:** There is no significant effect of income on the perception of teachers towards HRD Climate in the schools.

**H<sub>07</sub>:** There is no significant effect of service status on the perception of teachers, towards HRD Climate in the schools.

**H<sub>08</sub>:** There is no significant effect of board of schools on the perception of teachers, towards HRD Climate in the schools.

During analysis it has been observed that all null hypothesis were rejected this highlighted the effect of demographic variables on the perception of teachers towards HRD Climate (Table 1). The graphical representation of the data is shown in Figure 1:

While analyzing the data carefully, the following observations were made as per the hypothesis.

- The age of the teachers was divided into three groups: young, middle and senior. The mean value of the senior group of teachers is highest i.e. 29.18, so the teachers of the senior group have better perception than the young and middle age group of teachers.
- The gender was obviously consisted of two groups: male and female. The mean value of males is 29.078 which were higher than the

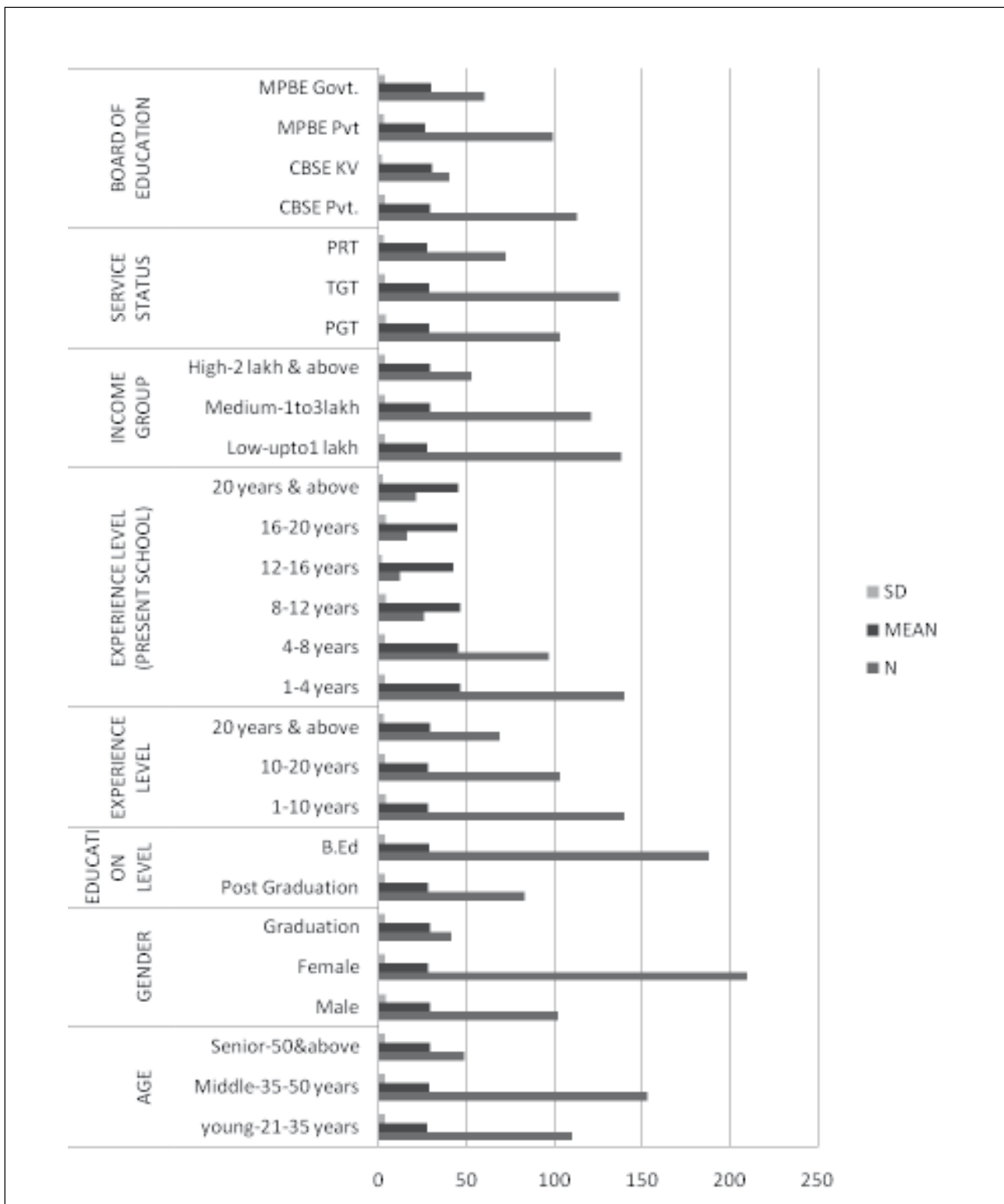


Figure 1: Graphical Representation of the Data

females so the perception of male teachers is better than the females.

- The education level was divided into three groups: Graduation, Post Graduation and

B.Ed. The mean value of the teachers who were in B.Ed group is highest i.e. 28.46, so the perception of the teachers who have B.Ed degree have better perception than the other groups of teachers.

- The experience level was divided into three groups: 1-10 years, 10-20 years, 20 years & above. The mean value of 1-10 years of group is highest i.e. 28.35, so the perception of this group of teachers is better than the other group.
- The experience in the present school was divided into six groups: 1-4 years, 4-8 years, 8-12 years, 12-16 years, 16-20 years, 20 years & above. The mean value of the 1-4 years group is highest i.e. 46.57 so the perception of these teachers is better than the other group of teachers.
- The income group is divided into three groups: Low - upto 1 lakh, Middle- 1-3 lakh, High- 3 lakh & above. The mean value of the teachers belonging to high income group is highest i.e. 29.47, so the teachers belonging to this group has better perception than the other groups.
- The service status is divided into three groups: PGT, TGT, PRT. The mean value of the TGT teachers is highest i.e. 28.78, so the perception of this level of teachers is better than the other groups.
- The Board of Education was divided into four groups: CBSE (Pvt.), CBSE (KV), MPBSE (Pvt.), MPBSE (Govt.). The mean value of the teachers teaching in CBSE (KV) affiliated schools is highest 30.27, so the perception of these teachers is better than the other affiliated schools.

## CONCLUSION

It has been observed that the middle age teachers were more aware and active towards

the HRD Climate. They found to be more concerned about their surroundings. In case of gender, the male teachers were expecting better environment in the schools, whereas, female teachers were found to be more adjustable with the present working environment. It has also been observed that the professionally qualified teachers were aware of the policies and procedures of the educational sector. Teachers, who have recently joined the profession wanted the organizational culture to be the best suited, as they have a long career to avail all the advantages. The school teachers with higher salaries were in a situation to look into the HRD Climate Practices in the respective schools, on the other hand school teachers having less salary structure were found to be concerned about the salary and compensations. The CBSE (KV) affiliated teachers were having positive attitude towards HRD Climate of their school and were also able to link it with job satisfaction. The Kendriya Vidyalaya schools have grievance cells also for the counseling of the teachers.

## References

- Hoy, WK and Miskel, CG. (1987). *Educational Administration. Theory, Research and Practice*. Random House. New York.
- Hoy, W. and Tarter, J. (1992). Measuring the Health of the School Climate. *NASSP Bulletin* 76 (547):74-79.
- Rao, T. V. (1995). *Human Resources Development: Experiences, Interventions, Strategies*. Sage Publications. New Delhi, 45-50.
- Rao, T. V. and Abraham, E. (1986). *Human Resource Development Climate in Indian Organization*. New Delhi: Oxford and IBH, 70 - 98.
- Rohmetra, N. (1998). Towards Creating a Learning Organization- the HRD Climate Focus. *Paradigm Shift* 2(1), 56-63.
- Venkateswaran, K. P. (1997). *A Note on HRD Climate*. Vikalp Publications, 51-53.

**Table 1: Effect of Demographic Variables on HRD Climate**

GROUP	SUB GROUP	N	MEAN	SD
AGE	young-21-35 years	110	27.76	3.23
	Middle-35-50 years	153	28.79	3.65
	Senior-50&above	49	29.18	3.16
GENDER	Male	102	29.078	3.79
	Female	210	28.204	3.27
EDUCATION LEVEL	Graduation	41	29.00	3.50
	Post Graduation	83	28.28	3.62
	B.Ed	188	28.46	3.40
EXPERIENCE LEVEL	1-10 years	140	28.35	3.77
	10-20 years	103	28.23	3.38
	20 years & above	69	29.15	2.86
EXPERIENCE LEVEL (PRESENT SCHOOL)	1-4years	140	46.57	3.71
	4-8 years	97	45.38	3.18
	8-12 years	26	46.46	3.99
	12-16 years	12	42.33	1.64
	16-20 years	16	44.75	3.94
	20 years & above	21	45.52	2.33
INCOME GROUP	Low-upto1 lakh	138	27.38	3.22
	Medium-1to3lakh	121	29.32	3.46
	High-2 lakh & above	53	29.47	3.32
SERVICE STATUS	PGT	103	28.59	3.75
	TGT	137	28.78	3.49
	PRT	72	27.77	2.91
BOARD OF EDUCATION	CBSE Pvt.	113	29.13	3.67
	CBSE KV	40	30.27	1.72
	MPBSE Pvt	99	26.61	2.77
	MPBSE Govt.	60	29.61	3.35

## CONSTRUCTING AN OPTIMUM PORTFOLIO USING SHARPE'S SINGLE INDEX MODEL

Nitin Tanted\*, Varun Deshlehra\*\* and Vijay Parmar\*\*

*A portfolio tries to trade off the risk return preferences of an investor by not putting all eggs in single basket and thus allows for sufficient diversification. An investor should consider systematic and unsystematic risk before investing in stock market. As it is not possible for an individual investor to analyze the risk in each security, thus Sharpe's had developed a model in which the total risk is considered for selecting and filtering out the securities from the available ones. The study focuses on finding out an optimal portfolio using Sharpe's single index model. This study is built around building up an optimal portfolio by balancing the positive and negative correlation existing between the securities.*

### INTRODUCTION

The security analysis and portfolio management has emerged as the most concerned aspect for rational investment and decision making. Portfolio is a combination of securities such as stocks, bonds and money market instruments. The process of blending together the broad assets classes so as to obtain optimum return with minimum risk is called portfolio construction. A portfolio tries to trade off the risk return preferences of an investor by not putting all eggs in single basket and thus allows for sufficient diversification. Markowitz was the first who laid foundation of "Modern portfolio theory" to quantify risk. He provided analytical tools for analysis and selection of optimal portfolio. The work done by Markowitz was extended by William Sharpe. He simplified the amount and type of input data required to perform portfolio analysis. He made the numerous and complex computations easy, which were essential to attain optimal portfolio. This simplification is achieved through single index model proposed by Sharpe considered as the simplest and the most widely used one. The study focuses on finding out an optimal portfolio using Sharpe's single index model. This study is built around building up an optimal portfolio by balancing the positive and negative correlation existing between the securities. For this study, the stocks from the different sectors like Banking and Finance, Cement and Cement Products,

Automobiles, Metal Products and Mining are included as they are of prime importance for real growth of an economy.

### REVIEW OF LITERATURE

Bilbao (2006) extended Sharpe's portfolio selection single-index model (1963, 1970) using experts to estimate assets' future Betas for inclusion as trapezoidal fuzzy numbers. They presented a fuzzy-based goal programming portfolio selection model that enables both analyst and decision-maker to work together. They have adopted a goal programming (GP) approach for fuzzy derivation using expert opinion as some decision makers (DMs) prefer an approach related to satisfaction than optimization. Explicates Sharpe's classic model and basic fuzzy set concepts, prior to formulating the portfolio fuzzy Beta as a trapezoidal number (Buckley et al., 2008). They tried to achieve goals such as maximizing expected returns; minimizing Betas; minimizing/maximizing the weighted sum of each asset's residual variance according to market expectations or investor preference; maximizing investment in every asset (diversification); investor preference based on asset Beta high-/low-risk categorization; and, flexible investment amounts in high-/low-risk assets. For this they have Used Zimmerman's satisfaction maxmin approach (1978) for aggregation of goal achievement. Thus they formulated the associated GP model and objective functions.

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Andrade (2012) presents an approach to the portfolio selection problem based on Sharpe's single-index model. To illustrate the model, a real portfolio selection problem is presented. The study is carried out to fulfill the objectives like (i) to construct an optimal portfolio by implementing Sharpe's single index model. (ii) to know the proportion of each security in the optimal portfolio. This paper aimed at developing an optimal portfolio of equity of IT sector, through Sharpe's Single Index Model. For the study, six top performing IT companies traded in BSE were taken and the optimal portfolio was constructed with 5 companies.

Mishra (2011) presented an approach to the portfolio selection problem based on Sharpe's single-index model. To illustrate the model, a real portfolio selection problem was presented. The study was carried out to fulfill the objectives like (i) to construct an optimal portfolio by implementing Sharpe's single index model, (ii) to verify and investigate the optimal portfolio framed out of the selected stocks on the basis of risk and return (beta and expected returns, respectively). This attempt selected the most representative stocks of the Indian economy, that is, the securities listed in BSE Sensex. All the thirty securities had been taken for the study. Through implementing financial techniques suggested by Sharpe individually on these stocks, results had been found in terms of optimal portfolio.

The investment in equity market is very typical and selection of securities requires prudent analysis. The present study will help the investors to identify and select the best securities from the available alternative using a well designed portfolio technique.

### OBJECTIVES OF THE STUDY

The primary objective is to construct an optimal stock portfolio among selected stock from the various sectors in India.

The specific objectives are:

- To build an optimum stock portfolio among selected stocks belonging to the manufacturing sectors in India, using Sharpe Single Index model.
- To calculate the proportion of investment to be made in each of the stock that is included

in the optimal stock portfolio constructed using Sharpe index model.

- To find out the portfolio return, systematic risk, unsystematic risk and the total risk of the optimal portfolio.

### METHODOLOGY

*The Study:* The study is a descriptive in nature.

*The Sample:* The data taken for the study is secondary in nature. The sample size of the study is limited to daily stock price series of 12 selected stocks that belong to four sectors namely Banking & Finance, Cement & Cement Products, Automobiles and Metal Products and Mining. The study is conducted with the financial data for the past ten years from April 2003 to March 2013 considering daily return of each security as well as determining the daily market return.

*Tools for Data Collection:* The data has been collected from the official website of Bombay Stock Exchange (BSE), namely [www.bseindia.com](http://www.bseindia.com).

*Tools for Data Analysis:* The Sharpe Single Index model has been used for data analysis. The steps are as follows:

1. Calculate of Excess Return to Beta Ratio.
2. Arrange the data in ascending order on the basis of "Excess Return-to-Beta Ratio".
3. Application of the sharpe single index formula for calculating the unique cut off Point.
4. Then to arrive at the optimal portfolio, the proportion of investment in each of the selected securities in the optimal portfolio is computed on the basis of beta value, unsystematic risk, excess return to beta ratio and the cut off rate of the security concerned.
5. Different statistical and financial tools and techniques, charts and diagrams have been used for the purpose of analysis and interpretation of data as explained in detail in the next section.

### Return

Daily return on each of the selected stock is calculated with the help of the formula given in eq. (1):

$$R_{it} = \frac{P_{it}}{P_{it-1}} \quad (1)$$

where  $P_t$ ,  $P_{t-1}$  are the share price at time  $t$  and  $t-1$  for security  $i$ .

**Standard Deviation**

The second phase in the context of testing of Sharpe’s model for selection of appropriate securities from the available ones to create a portfolio, the average of individual returns or portfolio are adjusted to the risk free return (here 7 percent is considered as risk free rate based on the portfolio on 91-day Government of India treasury bills). To estimate the coefficients with risk free adjusted average return on individual / portfolio and on market risk, the following model is used. The selection of any stock is directly related to its excess return – beta ratio given in eq (2):

$$\frac{R_i - R_f}{\beta_i} \quad (2)$$

Where  $R_i$  = the expected return on stock  $i$   
 $R_f$  = the return on a riskless asset and  
 $\beta_i$  = the expected change in the rate of return on stock  $i$  associated with one unit change in the market return.

The excess return is the difference between the expected return on the stock and the riskless rate of interest such as the rate offered on the government security or treasury bill. The excess return to beta ratio measures the additional return on a security (excess of the riskless assets return) per unit of systematic risk or non-diversifiable risk. This ratio provides a relationship between potential risk and reward. Ranking of the stock is done on the basis of their excess return to beta. The selection of the stocks depends on a unique cut off rate such that all stocks with higher ratios of  $(R_i - R_f) / \beta_i$  are included and the stocks with lower ratios are left out. The cutoff point is denoted by  $C^*$  and is calculated using eq. (3).

$$C_i = \frac{\sigma_m^2 \sum_{i=1}^N \frac{(R_i - R_f)\beta_i}{\sigma_{e_i}^2}}{1 + \sigma_m^2 \sum_{i=1}^N \frac{\beta_i^2}{\sigma_{e_i}^2}} \quad (3)$$

$C^*$  denotes the highest  $C_i$  value considered as the cut-off point and the stocks ranked above  $C^*$  have high excess return to beta and all the stock below  $C^*$  has low excess returns to beta. In case of large number of stock,  $C_i$  values are calculated till the cut-off point, denoted by  $C^*$ , is detected and the calculations are terminated after getting one or two more values. Mathematically  $C_i$  values are calculated using eq. (4) which is mathematically equivalent to eq. (3).

The  $C_i$  can be stated with mathematically equivalent way:

$$C_i = \frac{\beta_{ip}(R_i - R_f)}{\beta_i} \quad (4)$$

Where,  $\beta_{ip}$  = The expected changes in the rate of return on stock  $i$  associated with 1 percent change in the return on the optimal portfolio.

$R_p$  = The expected return on the optimal portfolio.

$\beta_{ip}$  and  $R_p$  cannot be determined until the optimal portfolio is found. The optimal portfolio, is obtained using eq (4). Securities are added to the portfolio as long as  $\frac{R_i - R_f}{\beta_i} > C_i$ . Now,  $> \beta_{ip}(R_p - R_f)$ , the right hand side is the expected excess return on a particular stock based on the expected performance of the optimum portfolio. The term on the left hand side is the expected excess returns on the individual stock. Thus, the portfolio manager believes that a particular stock will perform better than the expected return base on its relationship to optimal portfolio.

**Construction of the Optimal Portfolio**

After determining the securities to be selected, the investors should find out how much should be invested in each security. The percentage of funds to be invested in each security can be estimated using eq. (5) and (6):

$$X_i = \frac{Z_i}{\sum_{i=1}^N Z_i} \quad (5)$$

$$Z_i = \frac{\beta_i}{\sigma_{e_i}^2} \left\{ \frac{(R_i - R_f)}{\beta} - C^* \right\} \quad (6)$$



The first given in (5) expression indicates the weights on each security and sum up to one. The eq. (6) shows the relative investment in each security. The residual variance or the unsystematic risk has a role in determining the amount to be invested in each security.

### SHARPE'S SINGLE INDEX MODEL: THE THEORETICAL INSIGHT

Known economist William Sharpe developed the single index model given in equation (7)

$$R_i = \alpha_i + \beta_i R_M + e_i \quad (7)$$

Divides return into two components a unique part,  $\alpha_i$  and a market-related part,  $\beta_i R_M$

According to this model following assumptions are made:

Summarize all relevant economic factors by one macro-economic indicator and assume that it moves the security market as a whole. Beyond this common effect, all remaining uncertainty in stock return is firm specific; i.e. there is no other source of correlation between securities. Stocks vary together only because of their common relationship to the market index.

This model relates returns on each security to the returns on a common index. A broad index of common stock is generally used for this purpose. The common index can be BSE 100 stocks, Nifty 50 stocks and so on.

Because the S&P CNX 100 is a portfolio of stocks whose prices and rates of return can be observed, there is a considerable amount of past data with which systematic risk can be estimated. Denote the market index by M, with excess return of  $R_m = r_m - r_f$  and standard deviation  $\sigma_m$ . Because the index model is linear, the sensitivity (beta) coefficient of the security can be estimated on the index using a single variable linear regression. The excess return of a security,  $R_i = r_i - r_f$  is regressed on the excess return of the index,  $R_m$ . To estimate the regression, a historical sample of paired observations,  $R_{i(t)}$  and  $R_{m(t)}$  is collected where t denotes the date of each pair of observations. The regression equation is given in eq. (8).

$$R_{i(t)} = \alpha_i + \beta_i R_{m(t)} + e_{i(t)} \quad (8)$$

The intercept of this equation  $\alpha_i$  is the security's expected return when the market excess re-

turn is zero. The slope coefficient  $\beta_i$  is the security beta.  $E_i$  is the zero-mean, firm specific surprise in the security return in time t, also called the residual. Regression analysis is one technique that guarantees that  $e_i$  and  $R_m$  will be uncorrelated, atleast over the period to which the equation (9) has been fit.

Total risk = Systematic Risk + Unsystematic Risk - (9)

$$\sigma_p^2 = \left( \sum_{i=1}^N X_i \beta_i \right)^2 \sigma_m^2 + \sum_{i=1}^N X_i^2 e_i^2 \quad (10)$$

### RESULTS AND DISCUSSION

The results of the Sharpe Single index model for each of the 12 selected stocks are presented in table (1). It can be seen from the table that Jindal Steel yielded the maximum return (0.1411) among the companies selected and Ambuja Cement yielded lowest return of 0.0753.

The returns on stock investment are positive for all the twelve companies. Further, beta is a measure of the systematic risk associated with stock returns and higher beta value signify that the volatility in stock return is high and thus not always desirable. It can be seen from table-1 that beta values for most of the companies are more than 1.0. The lowest beta is observed for Bosch Ltd with value of 0.3952.

According to the Sharpe model the excess return of any stock is directly related to its excess return to beta ratio. It measures the additional return on a security (excess of the risk less asset return) per unit of systematic risk. The ratio provides a relationship between potential risk and reward. For the calculation of this ratio, the risk free return ( $R_f$ ) is taken as the rate of return on 91- days treasury bill which is found to be 6.5% for the period under study. Ranking of the stocks are done on the basis of their excess return to beta. Based on the excess return to beta ratio the scrip's are ranked from 1 to 12, with Bosch Ltd being in the first rank and Ambuja Cement being the last.

### Cut-off point

The selection of the stocks depends on a unique cut-off rate such that all stocks with higher ratios of excess return to beta are included and stocks with lower ratio are left out. The cu-

mulated values of  $C_i$  start declining after a particular  $C_i$  and that point is taken as the cut-off point and that stock ratio is the Cut-off ratio  $C$ . The highest value of  $C_i$  is taken as the cut-off point that is  $C^*$ . From table-2 it is seen that **SAIL** has the highest the cut-off rate of  $C^* = 0.0399$ . All the stocks having  $C_i$  greater than  $C^*$  can be included in the portfolio.

After determining the securities to be included in the optimal portfolio, we have to determine the proportion of investment in each of these stocks. Only those stocks with Excess return to beta ratio more than  $C^*$  (0.0399) are to be selected in the optimal portfolio. It can be observed from table-2 that only seven stocks qualify to be included in the optimal portfolio on this criterion. These are Bosch Ltd, Mahindra & Mahindra, Jindal Steel, Grasim Industries, ACC Ltd, PNB and SAIL with cut-off point ( $C_i$ ) of 0.006, 0.023, 0.029, 0.034, 0.036, 0.038 and 0.039 respectively as displayed in table-3.

By using Sharpe index model, we are able to find out the proportion of investments to be made for each of the three stocks included in the optimal portfolio. The maximum investment should be made in Mahindra & Mahindra (previously Hero-Honda) with a proportion of 23.93 percent, followed by Bosch Ltd, Grasim Industries, ACC Ltd, Jindal Steel, SAIL and PNB with investment proportion of 22.95 percent, 14.72 percent, 13.57 percent, 9 percent, 7.93 percent and 7.89 percent respectively. Among seven securities selected for the investment, two companies belongs to automobile sector, two are from metals and mining, two from cement industry and one from banking & finance. Evidently, the companies chosen for the investments are growing at a steady rate in the recent years.

Also, total risk of the portfolio is found out to be 2.733%

Andrade (2012) has also presented the approach to the portfolio selection problem based on Sharpe's single-index model. He has used IT sector and found five securities for creating an optimal portfolio. Mishra (2011) presented an approach to the portfolio selection problem based on Sharpe's single-index model. He has also taken the index and indentified the securities for creating the portfolio. Thus the research conducted

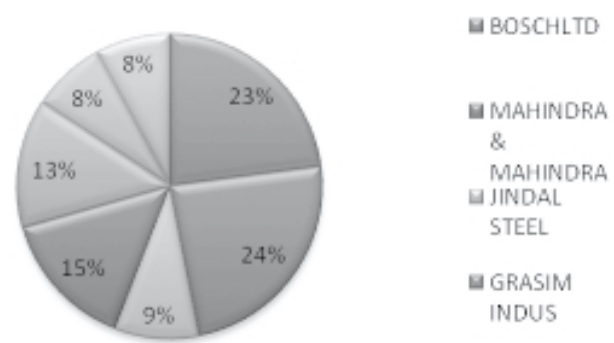


Figure 1: Pie Chart Showing Proportion of Investment in Selected Security Based on Sharpe's Single Index Model

is in the same line of the previous research conducted.

## CONCLUSION AND IMPLICATIONS

Risk and return play an important role in making any investment decisions. This study aims at analyzing the opportunity that are available for investors as per as returns are concerned and the investment of risk thereof. All 12 companies considered in the study, are showing positive returns. With regard to beta values, out of 12 companies, seven companies' stock showed beta above 1, indicating that the investments in this stock is out performing than the broader market. Finally out of the 12 stocks that are included in BSE, only seven stocks namely Bosch Ltd, Mahindra & Mahindra, Jindal Steel, Grasim Industries, ACC Ltd, PNB and SAIL are included in the Optimal Portfolio constructed in this study with maximum suggested investment in Mahindra & Mahindra.

The model used in the present study will help to select the securities among the listed securities for creating an optimal portfolio which will minimize the risk and maximize return. The Sharpe's single index model can be used for any sector with finite number of companies. The investor analyst can use this model for selecting the securities and create an optimal portfolio model for their clients. This model is very scientific in nature as it considers the total risk viz. systematic and unsystematic risk. The analyst can rely on this model considering the stock market fundamentals and economic indicators.

## References

Andrade Jenifer Pratibha (2012). Construction of Optimal portfolio of equity using sharpe single index model: A Case

- study of IT Sector, *International Journal of Applied Financial Management Perspectives*, 1 (2): 1-12.
- Bilbao A, Arenas M, Jiménez M, Perez Gladish B, Rodríguez M V (2006). An Extension of Sharpe's Single-Index Model: Portfolio Selection with Expert Betas, *Journal of the Operational Research Society*, 57 (12): 1442-1451.
- Buckley PJ et.al., (2008). The Role of Internationalization in Explaining Innovation Performance. *Technovation Journal*, 28 (1-2): 63-74.
- Mishra Ajit Kumar (2011). Construction of an Optimal Portfolio: An Application to Sharpe's Single Index Model, *Siddhant - A Journal of Decision Making*, 11 (2), 21-80.
- Chandra, Prasanna, (2008). *Investment Analysis and Portfolio Management*, 3rd Edition, Tata Mc Graw Hill, 590- 638.
- Mishra, Ajit Kumar (2011). Construction of an Optimal Portfolio: An Application to Sharpe's Single Index Model, *Siddhant - A Journal of Decision Making*, 11 (2), 1-30.
- Punithavathi, Pandian (2001). *Security Analysis and Portfolio Management*, Vikas Publishing House, 355-376.
- Sarayuth et.al., (2010). Estimation Risk Modeling in Optimal Portfolio Selection: An Empirical Study from Emerging Markets, *Economics Research International*, Article ID 340181, 10, doi:10.1155/2010/340181.
- Bibliography**
- Avadhani, A (1999). *Security Analysis and Portfolio Management*, 4th Edition, Himalaya Publication.
- Bodie, Zvi (2006). *Investments*, 6th Edition, Tata Mc Graw Hill, 892.
- Webliography
- www.bseindia.com
- www.nseindia.com

Table 1: Calculation of Excess Return to Beta Ratio

Security	Mean Daily Return (R <sub>i</sub> )	Beta (β)	Excess Return to Beta (R <sub>i</sub> - R <sub>f</sub> )/β
BOSCHLTD	0.111098069	0.39529	3.558021555
MAHINDRA & MAHINDRA	0.133555036	0.97389	7.292017325
JINDAL STEEL	0.141146264	1.28951	9.136012527
GRASIM INDUS	0.109935717	0.79334	7.216431182
ACC LTD	0.109616118	0.80231	7.319251236
PNB	0.117624224	1.02568	8.720004826
SAIL	0.133024406	1.35802	10.20880146
IDBI	0.119333127	1.24778	10.45627315
SBI	0.11088008	1.11648	10.06926046
TATAMOTORS	0.094882288	1.19486	12.5930381
TATASTEEL	0.080544046	1.33295	16.54933337
AMBUJA CEMENT	0.075320161	0.77385	10.27420004

**Table 2: Cut off Point i.e  $C_i$  for selecting the securities for creation of Portfolio**

S. No.	Security	Beta ( $\beta$ )	$((R_i - R_f) * \beta) / \sigma_{ei}^2$	$\beta_i^2 / \sigma_{ei}^2$	Cum $((R_i - R_f) * \beta) / \sigma_{ei}^2$	Cum $\beta_i^2 / \sigma_{ei}^2$	$C_i$
8	BOSCHLTD	0.395289	0.002586794	0.02488	0.002586794	0.02488029	0.006453
9	MAHINDRA & MAHINDRA	0.973886	0.01054004	0.16151	0.013126834	0.1863906	0.023342
12	JINDAL STEEL	1.289514	0.00737003	0.133581	0.020496864	0.31997115	0.029452
6	GRASIM INDUS	0.793344	0.009897413	0.196617	0.030394277	0.51658835	0.034053
4	ACC LTD	0.802308	0.0099727	0.201968	0.040366977	0.71855605	0.036880
3	PNB	1.025684	0.010118061	0.217913	0.050485038	0.93646892	0.038466
<b>10</b>	<b>SAIL</b>	<b>1.35802</b>	<b>0.013500763</b>	<b>0.290908</b>	<b>0.063985802</b>	<b>1.22737691</b>	<b>0.039907</b>
2	IDBI	1.24778	0.00855923	0.216488	0.072545031	1.44386498	0.039863
1	SBI	1.11648	0.017228592	0.470532	0.089773624	1.91439698	0.039196
7	TATAMOTORS	1.194856	0.004362055	0.209467	0.094135679	2.12386442	0.037657
11	TATASTEEL	1.33295	0.00313791	0.396686	0.097273589	2.52055066	0.033583
5	AMBUJA CEMENT	0.773854	0.000614039	0.089316	0.097887628	2.60986698	0.032784

**Table 3: Proportion of Investment in selected security based on sharpe's Single Index Model**

Security	$C_i$	$X_i$ %
BOSCHLTD	<b>0.006453</b>	<b>22.95%</b>
MAHINDRA & MAHINDRA	<b>0.023342</b>	<b>23.93%</b>
JINDAL STEEL	<b>0.029452</b>	<b>9.00%</b>
GRASIM INDUS	<b>0.034053</b>	<b>14.72%</b>
ACC LTD	<b>0.03688</b>	<b>13.57%</b>
PNB	<b>0.038466</b>	<b>7.89%</b>
SAIL	<b>0.039907</b>	<b>7.93%</b>

## IMPROVING THE PERFORMANCE OF ELECTRICITY GENERATION COMPANIES: COMPETITION REFORMS THE WAY FORWARD

Vebhav Gupta\* and Yogesh Singla\*\*

*Since 1982 more than half the world's countries have reformed their electricity sectors, implemented correctly, the standard reform model –with competition, unbundling and effective regulation had lead to big gains in the performance. Pressure for change in mature industrial economies grew with the emergence of excess capacity and the disillusionment with expensive, capital intensive generation projects. Developing countries like India faced different circumstances. While investment needs were low in developed countries like Argentina with excess capacity, they were high in developing countries, most of which had rapid demand growth for electricity, a tight demand-supply balance, and periodic black outs. While electricity utilities in developed countries have tolerable performance, those in developing countries suffered from poor service quality, low labor productivity, chronic revenue inadequacy, deteriorating facilities and equipment, and serious problems of theft and non payment. Against this background, a new paradigm emerged for the organizational restructuring of the electricity industry. The standard model not with standing, electricity reform in developing and developed countries has been incomplete, uneven and irregular process that entails a complex set of interactions between the state and the market. Reforms have progressed furthest in Australia, Canada, the United States, most European countries and parts of Latin America. Argentina is an important case study of electricity reform and it shares many of the features of developing country's electricity systems. Like India it is federal state and the provinces retain a larger degree of autonomy over the regulation of local utilities. Argentina share the political and macroeconomic instability of many other developing countries but is perhaps unusual in its capacity for designing and running sophisticated economic institutions such as those required by deregulated electricity market. The paper studies the impact of type of competition on power sector in India and Argentina and tries to find out which form of competition has been more powerful in bringing the desired changes.*

### INTRODUCTION

In 1990's many countries across the world embraced reforms in power sector to improve the performance in this sector. It involved restructuring of the sector – privatization of state owned utilities, vertical and horizontal de-integration, increasing competition in the generation and distribution sector and development of regulatory framework (APERC 2000). Although the approaches to reform have varied across countries, the main objective has been to improve the economic efficiency of the sector by introducing private capital, increasing competition and introducing regulatory framework (Zhang; Kirkpatrick & Parker, 2002). While the restructuring initiatives are ongoing, and there is much

to learn from the successes and the problems to date. Most countries are undertaking reforms in some form, though the starting point, pace and scope varies in each country (Briggs, 2007). So there is 'No one size fits all' and is tailor made according to the needs, demography, economic, social and political conditions of the country. Thus, the impact of competition on the electricity sector may produce different results depending on the design and its implementation (kessides,2004).

The sample countries are India & Argentina. Argentina was chosen as a sample country because the restructuring process of the electricity sector that started in 1992 fares among the most successful, when compared to other electricity

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sector reforms in the world. It shares many of the features of developing country's electricity system. Like India, it is a federal state and the provinces retain a large degree of over the regulation of local utilities including the power to privatize local distribution utilities and to set residential prices (Lamb, 2006). Argentina shares the political and macroeconomic instability like of India but is perhaps unusual in its capacity for designing and running sophisticated economic institutions such as those required by a deregulated electricity market. Argentina has GDP growth of 7% as of India which is in the range of 7%-8% and faced the same challenges as being faced by India like power shortages, thefts, transmission, distribution losses, cross-subsidies, political interferences, inefficient use of power and lack of regulatory mechanism for free trade of power. India like Argentina rely on thermal generation which constitutes 65% and 54% of the installed capacity respectively with renewable energies being barely exploited. In view of similarities of the economic and political conditions and the problems encountered by Argentina in its implementation of power sector reforms; the comparative study has been carried out with Argentina which may provide fruitful experiences to be incorporated in the second generation power reforms of India (Rudnick & Solezzi, 2001).

## RESEARCH PROBLEM

In economics, market power is the ability of the firm to alter the market price of good or service (Wikipedia, 2011). In perfectly competitive markets, market participants have no market power. In a competitive market, prices and profit reveal important information about the costs of a firm and efficiency of input use, thus providing the firms with incentive to improve internal efficiency (Hayek, 1945). Competitive markets allow effective oversight on the market players and deliver economic and environmental benefits to consumers. In competitive markets, suppliers compete against each other to provide best possible service at the lowest cost in order to retain and attract the customer. Comparatively in monopoly regulated states, incumbents have no inducement to innovate or lower cost because customers are captive to their monopoly-protected supplier (Compete coalition, 2011).

On the basis of above, it can be said that the widely accepted and recognized view is that in order to sustain in the market; supplier innovates and make the most efficient use of the inputs to provide affordable and reliable services to the customers. But now the question rises does it really hold true for Power sector. When India embarked on its journey to reforms in the power sector there had been unbridled optimism for power reforms. It was expected to act a magic wand that will solve all the problems of power sector. Now twenty years on when the reforms were implemented, the following questions come to mind:-

- Does competition bring about technical and productive efficiency?
- If so, which form of competition i.e., competition by restricting the market share or competition by not restricting the market share has been more powerful ?
- How should India go ahead with its next generation reforms ?

To gauge the impact of reforms the competition will be tested against the following dimensions- net consumption per capita, energy shortages and electricity distribution losses. These parameters have been chosen as the impact of competition will be profound on them and at the same time these variable are measurable and there is availability of data for the same.

*Net Consumption Per Capita:* The impact of competition on consumption is an important and intriguing issue every where but particularly in the power sector. In monopoly states, protected utilities recover the cost of their investment plus profit from captive rate payers, who bear the risk of investment decisions and little incentive exists to prevent cost over-runs and project delays. In organized competitive markets, utilities are not guaranteed a profit and are dependent upon market returns to recoup their investment (Compete coalition, 2011). Consumers are protected from the risk of poor or failed investment decision. Thus, it is expected that in competitive markets firms will try to reduce their cost and provide better services to consumers in order to retain and attract the customers. This will lead to increase in consumption per capita.

*Reduction in Electricity Shortages:* Like consumption, competition is expected to have a favourable impact in reducing the electricity shortages. As the competition will increase, barriers to entry will reduce. There will be entrance of new players in the market. This will increase the infrastructure and reduce the electricity shortages (Nagayama, 2007). Moreover, when there will be competition in the market every player will try to reduce price by increasing the efficiency i.e., he will make better use of existing capital stock and will reduce the technical and other losses. This will increase the generation and will result in reduction of electricity shortages.

*Reduction in Electricity Distribution Losses:* In a competitive retail electricity markets, customers can choose from a variety of power suppliers who offer various green, sustainable and clean energy sources at cheaper prices. In monopoly protected states, rate payers are locked into power sources and prices chosen by their monopoly utility company. Since, in a competitive market a customer can choose among his suppliers, the supplier will always have an incentive to reduce the prices in order to attract and retain the customer. Distribution is one of the major segments of power. Here the supplier can reduce a number of losses in the form of technical, theft and pilferage losses; there by reducing the cost per unit to the end consumer. Thus competition is expected to reduce electricity distribution losses.

## OBJECTIVES OF THE STUDY

The objectives of the study are:

- To study impact of competition on power sector in India and Argentina since implementation of reforms in the sector.
- To study the effectiveness of Competition reforms in India vis a vis Argentina.

## RESEARCH HYPOTHESIS

On the basis of above discussion, A set of core hypothesis are developed to examine the behaviour of key variables i.e. consumption per capita, energy shortages and electricity distribution losses.

H1: Competition by way of unrestricted market share will increase consumption per capita.

H2: Competition by way of unrestricted market share will decrease energy shortages.

H3: Competition by way of unrestricted market share will decrease distribution losses.

In India there is no limit to the market share a player can have where as in Argentina the maximum share an electricity firm can have is 10% of the total market thus not allowing dominance of one firm. In this way they don't allow to form market power. Where as in India one market player may acquire any amount of market share which may lead to dominance of a single firm (Joskow, 2008), thereby, allowing him to manipulate prices and enter into collusion. The purpose of the hypothesis is to find out the role of competition in bringing about efficiency and to find out which form of competition is more suitable with respect to the three variables i.e. consumption per capita, energy shortages and distribution losses. One reason for not restricting the market share in India may be that in India there has always been shortage of supply. So every firm that adds to generation is allowed to produce electricity irrespective of the share it has in the market. Where as in Argentina the purpose of the competition has been to provide better services to the customer at cheaper rates.

## METHODOLOGY

*Reference Period:* Using an original panel dataset for the period 1991-2008, the paper provides the analysis of the effects of competition in power Sector of India & Argentina. The starting year of the study is 1991, as the reforms started in India & Argentina from this year. The final year 2008, represented the last year for which the data were available at the time the research was conducted.

*Research Design:* Since the study is about describing the state of affairs in the electricity sector as it exists at present and has no control over variables, therefore the researcher has undertaken Ex-Post facto research. Given that, the research involves comparison between India & Argentina Electricity sectors, a Cross- National Policy Sector Approach (NPSA) is used.

*Sources of Data:* The data base for the present research is secondary which includes published

documents of proven authenticity. Data source for the present research is secondary and has been derived from various authentic documents. The indicators consumption per capita was calculated based on data from U.S. Energy Information Administration, Asia Pacific Energy Research Centre (APEREC) and World Development Indicators published by the World Bank and from the database of the Ministry of power, Govt. of India & Ministry of power, Govt. of Argentina. Electricity distribution losses and energy shortages were calculated using the database of U.S. Energy Information Administration. Some relevant data have also been taken from the research theses, papers, studies & books for the purpose.

**Tool for Data Analysis:** After collecting the data from secondary sources, they have been arranged in tabular form in a sequential and chronological order. To analyse the data, various mathematical and statistical tools have been applied. The mathematical tools are simple average, annual average growth rate (AAGR) and percentage. The statistical techniques applied in the present study include mean, standard deviation, coefficient of correlation, coefficient of determination and one sample t-test for significance at 5% level. Since these are parametric tests, to determine normality of the sample tests like descriptive statistics, Stem & Leaf, Box Plots & Histograms have been used. To normalize the data log and Inverse form of transformations have been used.

## RESULTS

Competition has been derived by subtracting % share of the three largest generation company in India from 100. Competition in India in 1991 was 67.62% which increased to 68.54% in 2008. This shows a marginal rise in competition in India. Net consumption per capita in 1991 in India was 277.20 which increased to 527.61 in 2008. Energy shortages in India were 8.62% which increased to 11.07% in 2008. Electricity Distribution losses in India were 21.41% in 1991 which increased to 31.30%. Thereafter they started falling and reached at 26.77% in 2008.

Analysis shows that there is a significant correlation  $r=0.488$  (d.f.=16),  $p < 0.05$  at 5 percent level of significance between competition in elec-

tricity market and net consumption per capita in India. This means that as the competition increases the net consumption per capita also increases. It also shows a significant correlation  $r=0.715$  (d.f.=16),  $p < 0.05$  at 5 percent level of significance with energy shortage. This means as competition increases energy shortage also increases which is not good for India. It has also been found that in actual no significant change has been observed in competition itself in India. The insignificant correlation  $r=0.11$  (d.f. = 16),  $p > 0.05$  at 0.5 level between competition and distribution losses, (Table:1). This means that as competition increases losses decrease. Thus the hypothesis is proved in case of consumption per capita and transmission and distribution losses.

In case of Argentina competition has been derived by subtracting percent share of the three largest generation company in Argentina from 100. Since the data of competition was not found normally distributed so a log competition has been used for the purpose of correlation analysis. Competition in Argentina was just 8.49 percent in 1991 which increased to 54.16 percent in 2008. It shows a sharp increase in competition in Argentina. Net consumption per capita were 1226.79 in 1991 which increased to 2625.92 in 2008. Energy shortages were .28% which were 0 in 2008. So at present no energy shortages in Argentina. Electricity distribution losses (%) were 19.33 % in 1991 which reduced to 14.39% in 2008.

The competition has been transformed into log (competition). Therefore it has decreased with the increase in competition and interpretation has been made accordingly. Log (competition) shows a significant correlation with net consumption per capita at 0.5 level,  $r$  (d.f. =16) = -.809,  $p < .05$ . This means that as the competition increases Net consumption in Argentina also increases. There is a significant correlation at 0.5 level between log (competition) and Energy shortages (%),  $r$  (d.f. =16) = -.872,  $p < .05$ . This means as the competition increases the energy shortage reduces. Similarly log (competition) have significant relationship at 0.5 level with Electricity distribution losses (%) in Argentina (in actual negative),  $r$  (d.f.=16) = -.847,  $p < .05$ .



(Table: 2). It means that as competition increases the distribution losses reduces.

This proves our main hypothesis that competition will bring in technical & productive efficiency

An independent –samples t-test is conducted to compare consumption per capita in case the market share is not restricted and market share is restricted. There is significant difference in the scores for no restriction on market share (Mean =382.66, S.D. =71.59) and restriction on market share (Mean=1903.6, S.D. =404.47);  $t$  (d.f. =34) =15.710,  $p < .05$  (Table: 3). The mean value of consumption is higher where the market share is restricted (Argentina) as compared to where the market share is not restricted (India). This rejects our hypothesis that by not restricting the market share consumption per capita will increase. Thus while increasing the competition; one must resort to restriction of the maximum share that a market player should hold.

An independent –samples t-test is conducted to compare energy shortages in case the market share is not restricted and market share is restricted. There is significant difference in the scores for no restriction on market share (Mean=7.97, S.D. =1.27) and restriction on market share (Mean=.092, S.D. =.082);  $t$  (d.f. =34) =26.069,  $p < .05$  (Table: 4). This means that the mean value of energy shortages in case where the market share is not restricted (India) is more than the mean value where the market share is restricted (Argentina). Therefore the shortages in India are much more than the shortages in Argentina

This rejects our hypothesis that the competition by way of not restricting the market share will lead to reduction of energy shortages. Infact the case of Argentina shows that the competition by restricting the market share has brought down the energy shortages to the level 0.

An independent –samples t-test is conducted to compare distribution losses in case the market share is not restricted and market share is restricted. There is significant difference in the scores for no restriction on market share (Mean=25.97, S.D. = 4.31) and restriction on market share (Mean=16.98, S.D. =1.75);  $t$

(d.f=34) =8.19,  $p < .05$ . The mean value in case where there is no restriction on the market share (India) is more than the mean value where there is restriction on the market share (India). It means that distribution losses in India are more as compared to Argentina (Table: 5). In India distribution losses in 1991 were 21.41% which increased in 2001 to 32.10. This rejects our hypothesis that the competition by way of not restricting the market share will lead to reduction of distribution losses. Infact the case of Argentina shows that the competition by restricting the market share has brought down the distribution losses to the minimum technical level which cannot be avoided.

### Consumption Per Capita

The correlation coefficient is significant and positive both in case of India & Argentina. The strong positive correlation between competition and consumption per capita confirms the study by (Hawdon, 1998) that the consumption will improve with the introduction of competition. The rise in consumption may be explained by the fact that in monopoly states, protected utilities recover the cost of their investment plus profit from captive rate payers, who bear the risk of investment decisions and little incentive exists to prevent cost over-runs and project delays. In competitive market, utilities are not guaranteed a profit and are dependent upon market returns to recoup their investments. Consumers are protected from the risk of poor or failed investment decision. Thus in competitive markets firms will try to reduce their cost and provide better services to consumers in order to retain and attract the customers. This will lead to increase in consumption per capita.

### Electricity Shortages

The correlation coefficient is significant and positive in case of India. The unexpected positive correlation implies that as the competition increased the electricity shortages also increased in India. The result for electricity shortages is less easy to explain but may indicate the unprecedented growth of Indian economy. Since the installed capacity and generation has increased over a period of time, but there still exists shortages. It means that the increasing vibrancy and flexibility of the Indian economy is not matched

by the power sector. In other words, demand for electricity is outpacing its supplies suggesting a need of more investments in the sector. The correlation coefficient is significant but negative in case of Argentina. It is on the expected lines that as the as the competition will increase, barriers to entry will reduce. There will be entrance of new players in the market. This will increase the investments in the sector and reduce the electricity shortages.

### **Distribution Losses**

The correlation coefficient is insignificant and negative in case of India. It implies that as the competition increased there is a reduction in distribution losses in India but these losses have reduced marginally. This confirms the study by (Ahluwalia, Sanjeev & Gaurav Battani, 2000) that India will have to trim down its distribution losses to international acceptable levels at 15% to make the power sector viable. The correlation coefficient is significant and negative in case of Argentina. It implies that as the competition increased there is noticeable reduction in distribution losses. In a competitive retail electricity markets, customers can choose from a variety of power suppliers. In monopoly protected states, rate payers are locked into power sources and prices chosen by their monopoly utility company. Since in a competitive market a customer can choose among his suppliers, the supplier will always have an incentive to reduce the prices in order to attract and retain the customer. Distribution is one of the major segments of power. Here the supplier can reduce a number of losses in the form of technical, theft and pilferage losses, there by reducing the cost per unit to the end consumer. Thus competition will reduce electricity distribution losses. The mean value is higher in case of consumption per capita in Argentina and lower in case of energy shortages & distribution losses. Thus competition by restricting the market share is more successful as compared to not restricting the market share.

### **CONCLUSION AND SUGGESTIONS**

The study provides an insight into the efficacy of the competition reforms undertaken. Govt. of India should continue with the competition policy in the power sector as underpinned by the empirical evidences and extensive re-

search. However the caveat is that the government should not continue with competition with unrestricted market share as this will lead to cartel and market power which ultimately defeat the purpose of Competition policy. This unrestricted share should be continued till the time there is shortage of power supply i.e., demand for power is more than the supply. As soon as the supply becomes equal to demand government should switch over to competition with restricted market share. Thus, it is suggested that India should wait to restrict the market share of the firms until the time the competition in the power sector increases and the sector becomes power surplus as in case of Argentina. Till that time Indian power sector cannot afford to restrict the market share of power generating companies as this will amount to limiting generation of power.

The sample is composed of India & Argentina for which we have obtained data on competition to create our variables. There may be sample bias in the data provided by the sample countries. We have no reason to believe that this should be the case, but cannot of course rule it out. The time period for the study has been taken from 1991-2008, but due to non availability for some years has made limits to the study. Performance indicators like quality of service could not be estimated because of lack of data. The impact of competition on prices charged for electricity generated could not be estimated, as there is lack of sufficient comparable data across our sample of countries to carry out such analysis. Moreover in India, the electricity pricing mechanism is complex in nature as there are different tariff structure is followed for various classes of consumers Viz Household, Agricultural, Industrial & Commercial establishment. The t-test measures the impact of competition by taking mean value into consideration on consumption per capita, electricity shortages and distribution losses. The other factors like privatization and regulation that can influence are not considered in the study.

Endeavour has been made to produce satisfactory measures of competition; however more work in this direction would be valuable at international level. Similarly a comparative study can be undertaken between India and better

performing countries to have a better and wider view of the factors responsible for the differential performances. A focused study could be undertaken on the issues of quality of service after implementation of reforms which are crucial indicators of the performance of the power sector. It includes factors like prices charged for electricity generated, number of blackouts, voltage profile, availability of power to end consumers, intelligent metering and billing, responsiveness and accountability.

### References

- Ahluwalia, Sanjeev and Gaurav Battani. (2000). *Tariff Setting in the Electric Power Sector: Base paper on India Case Study*. Paper presented at TERI Conference on Regulation in Infrastructure Services, November 14-15.
- APERC. (2000). *Electricity Sector Deregulation in the Asia Pacific Region*. Asia Pacific Energy Research Centre. Tokyo
- Briggs, I.N. (2007). *Nigeria: Mainstreaming Trade Policy into National Development Strategies*. African Trade Policy Centre Working Paper No. 52.
- Hawdon, D. (1998). *Improving the Performance of Electricity Industries in Developing Countries: Is World Bank Policy on Deregulation the Way Forward?* In *Deregulation of Electric Utilities*. Boston: Kluwer Academic Publishers.
- Hayek, F.A. (1945). The Use of Knowledge in Society. *American Economic Review*, 35, 519-530.
- Joskow, P. (2008). Lessons Learnt from Electricity Market Liberalization. In *The Future of Electricity*. *Energy Journal*.
- Kessides, I. (2004). *Reforming Infrastructure: Privatisation, Regulation, and Competition*. New York: Oxford University Press.
- Lamb, P. (2006). Indian Electricity Market: Country Study and Investment Context. *Program on Energy and Sustainable Development Working Paper 48*.
- Nagayama, H. (2007). Effects of Regulatory Reforms in the Electric Supply Industry on Electricity Prices in Developing Countries. *Energy Policy*, 35(6):3440-3402.
- Newberry, D. (1995). A Template of Power Reform. *Public policy for the private sector note 54*, World Bank, Washington, D.C..
- Rudnick, H. and J. Solezzi (2001). Electricity Sector Deregulation and Restructuring in Latin America: Lessons to be Learnt and Possible Way Forward. *IEEE Proceeding: Generation, Transmission and Distribution*.
- Warwick, W.M. (2002). *A Primer on Electricity Utilities, Deregulation and Restructuring of U.S. Electricity Markets*. U.S. Department of Energy Federal Energy Management Programme. PNNL-13906, Pacific Northwest National Laboratory. Chapter 6.
- Zhang, Y.F., Kirkpatrick, C., and Parker, D.(2002). Electricity Sector Reform in Developing Countries: An Assessment of the Effects of Privatization, Competition and Regulation. *Centre on Regulation and Competition Working Paper Series Working Paper, 31*.

### Webliography

- Benefits of Electricity Market Competition* Retrieved September 30, 2011 from <http://www.competecoalition.com/resources/overview-and-benefits-competitive-markets>
- Compete Coalition (2011). [www.competecoalition.com](http://www.competecoalition.com)
- Wikipedia. Retrieved September 1, 2011 from <http://en.wikipedia.org/wiki/Privatization>
- Wikipedia. Retrieved September 2, 2011 from <http://en.wikipedia.org/wiki/Privatization>.

**Table 1: Correlation in Case of India****Correlations**

		Competition in electricity t marke in India	Net Consumption/ per capita in India	Energy Shortage (%)	Electricity Distribution losses (%)
Competition in electricity market in India	Pearson Correlation Sig. (2-tailed) N	1  18	.488*  .040 18	.715**  .001 18	-.011  .966 18
Net Consumption/ per capita in India	Pearson Correlation Sig. (2-tailed) N	.488*  .040 18	1  18	.517*  .028 18	.536*  .022 18
Energy Shortage (%)	Pearson Correlation Sig. (2-tailed) N	.715**  .001 18	.517*  .028 18	1  18	-.032  .898 18
Electricity Distribution losses (%)	Pearson Correlation Sig. (2-tailed) N	-.011  .966 18	.536*  .022 18	-.032  .898 18	1  18

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

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

**Table 2: Correlation Results in Case of Argentina**

		Log (Competition)	Net Consumption/ Capita in Argentina	Energy Shortage(%) Argentina	Electricity Distribution in losses % in Argentina
Log(Competition)	Pearson Correlation Sig. (2-tailed) N	1  18	-.809**  .000 18	.872**  .000 18	.847**  .000 18
Net Consumption/ Capita in Argentina	Pearson Correlation Sig. (2-tailed) N	-.809**  .000 18	1  18	-.947**  .000 18	-.750**  .000 18
Energy Shortage(%) in Argentina	Pearson Correlation Sig. (2-tailed) N	.872**  .000 18	-.947**  .000 18	1  18	.771**  .000 18
Electricity Distribution losses % in Argentina	Pearson Correlation Sig. (2-tailed) N	.847**  .000 18	-.750**  .000 18	.771**  .000 18	1  18

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

**Table 3: Effect of Competition on Type of Competition on Net Consumption (per capita)**

		Net Consumption/per capita	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	22.875	
	Sig.	.000	
t-test for Equality of Means	t	-15.710	-15.710
	df	34	18.064
	Sig. (2-tailed)	.000	.000
	Mean Difference	-1520.97056	-1520.97056
	Std. Error Difference	96.81691	96.81691
	95% Confidence Interval of the Difference	Lower Upper -1717.72620 -1324.21491	Lower Upper -1724.32368 -1317.61743

**Table: 4 Effect of Type of Competition on Energy Shortages****Independent Samples Test**

		Energy Shortage (%)	
		Equal variances assumed	Equal variances not assumed
Levene's Test for Equality of Variances	F	22.902	
	Sig.	.000	
t-test for Equality of Means	t	26.069	26.069
	Df	34	17.139
	Sig. (2-tailed)	.000	.000
	Mean Difference	7.87944	7.87944
	Std. Error Difference	.30225	.30225
	95% Confidence Interval of the Difference	Lower Upper 7.26520 8.49369	Lower Upper 7.24215 8.51674

Table 5: Effect of Type of Competition on Distribution Losses

## Independent Samples Test

		Electricity Distribution losses Percentage		
		Equal variances assumed	Equal variances not assumed	
Levene's Test for Equality of Variances	F	22.420		
	Sig.	.000		
t-test for Equality of Means	T	8.188	8.188	
	Df	34	22.443	
	Sig. (2-tailed)	.000	.000	
	Mean Difference	8.99333	8.99333	
	Std. Error Difference	1.09842	1.09842	
	95% Confidence Interval of the Difference	Lower	6.76109	6.71796
		Upper	11.22558	11.26870

## STATUS OF GREEN ENTREPRENEURSHIP IN INDIAN CONTEXT

Hemantha Y\* and Arun B.K\*\*

*Green Entrepreneurship is the term associated with a business which is concerned about environment friendly business. In business sense, the term is related to eco-friendly product(s) or green product(s). In general, the global companies are aware of green products and services, whereas, in an Indian context the concept of going green is appreciated by very few companies. This study will address the reasons as to why the green concept is in nascent stage in Indian context. This study first attempts to understand the nature of green entrepreneurship by critically analyzing the existing literature on the same and extending the concept without contradicting the existing managerial concepts to arrive at factors likely to be responsible for green entrepreneurship in Indian companies.*

### INTRODUCTION

Entrepreneurship is the act of being an entrepreneur or “one who undertakes innovations, demonstrates finance and business acumen in an effort to transform innovations into economic goods”. This may result in a new organization or may be part of revitalizing mature organizations in response to a perceived opportunity. The most obvious form of entrepreneurship is that of starting new businesses (referred to as Startup Company); however, in recent years, the term has been extended to include social and political forms of entrepreneurial activity. When entrepreneurship is describing activities within a firm or large organization it is referred to as intra-preneurship and may include corporate venturing, when large entities spin-off organizations. Entrepreneurship in the academic literature is generally accepted as extending well beyond the small business owner/manager sector, with which it is popularly linked. In other words, there can be entrepreneurial behaviour in large organizations – termed ‘intrapreneurship’ - and in many walks of life, not just business. For example, there is growing attention being paid to social, civic and artistic entrepreneurs (Isaak, 1997; Dean et al, 2007).

Entrepreneurial activities are substantially different depending on the type of organization and creativity involved. Entrepreneurship ranges in scale from solo projects (even involv-

ing the entrepreneur only part-time) to major undertakings creating many job opportunities. Many “high value” entrepreneurial ventures seek venture capital or angel funding (seed money) in order to raise capital to build the business. Angel investors generally seek annualized returns of 20-30 percent and more, as well as extensive involvement in the business. Many kinds of organizations now exist to support would-be entrepreneurs including specialized government agencies, business incubators, science parks, and some NGOs. In more recent times, the term entrepreneurship has been extended to include elements not related necessarily to business formation activity such as conceptualizations of entrepreneurship as a specific mindset resulting in entrepreneurial initiatives e.g. in the form of social entrepreneurship, political entrepreneurship, or knowledge entrepreneurship have emerged.

Entrepreneurship employs what Schumpeter called “the gale of creative destruction” to replace in whole or in part inferior innovations across markets and industries, simultaneously creating new products including new business models. In this way, creative destruction is largely responsible for the dynamism of industries and long-run economic growth. The supposition that entrepreneurship leads to economic growth is an interpretation of the residual in endogenous growth theory and as such is

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hotly debated in academic economics. An alternate description posited by Israel Kirzner suggests that the majority of innovations may be much more incremental improvements such as the replacement of paper with plastic in the construction of a drinking straw (Larson, 2000).

Entrepreneurship in the academic literature is generally accepted as extending well beyond the small business owner-manager sector, with which it is popularly linked. In other words, there can be entrepreneurial behaviour in large organizations – termed ‘intrapreneurship’ - and in many walks of life, not just business. For example, there is growing attention being paid to social, civic and artistic entrepreneurs (Leadbeater 1997). Entrepreneurship is also generally understood to imply a growth orientation. In other words, a small business that wants to stay small is often excluded from the category of entrepreneur. Similarly some commentators suggest that initiatives that are not really different or distinctive - perhaps because they replicate something which exists.

When reviewing relevant literature it can be noticed that terminology describing the relationship between the environment and entrepreneurship is used in a rather unstructured manner. Moreover, existing definitions of green entrepreneurs are reviewed and a definition of green entrepreneurship that is applied throughout this paper. To date several different terms have been used by researchers while analysing the environment and entrepreneurship. Commonly used terms are green entrepreneurship and ecopreneurship (Schaper, 2002), eco-entrepreneurship (Schaper, 2002) and environmental entrepreneurship. Schaper (2005) argues that these terms capture the same concept and may be used interchangeably. As explained in the previous subsection, sustainable entrepreneurship (Dean and McMullen, 2007) describes a somewhat different phenomenon and needs to be differentiated from these terms. Hence, in line with Schaper (2005), this paper assumes that the four terms mentioned above are interchangeable. In accordance with the latter and for the sake of clarity and readability, this paper will state any of these terms solely as green entrepreneurship.

As diverse as the terminology used by researchers to name the phenomenon, are the definitions of green entrepreneurship they advance. These definitions may be classified according to the dimensions of green entrepreneurship to which they relate. For example, Isaak (1997) defines green entrepreneurship as “system transforming, socially committed environmental business characterised by breakthrough innovation”. Hence, he seems to focus on the distinctive organizational characteristics of the venture and emphasizes an environmental purpose of the latter. Others focus on the process involved in green entrepreneurship, such as Dean and McMullen (2007) who define green entrepreneurship as “the process of defining and exploiting economic opportunities that are present in environmentally relevant market failures”. Similarly, it is suggested that green entrepreneurship can be defined as “the practice of starting new businesses in response to an identified opportunity to earn a profit and provide (minimize) a positive (negative) environmental externality”. Lastly, there exist definitions who relate more to the dimension of environmental outcomes that green entrepreneurs aim for. For example, a rather broad definition is advanced by Anderson and Leal who define green who define green entrepreneurship as “entrepreneurs using business tools to preserve open space, develop wildlife habitat, save endangered species and generally improve environmental quality”. Looking at these definitions it can be noted that researchers still seem to struggle with capturing the phenomenon of green entrepreneurship. This can be substantiated by the fact that to date there exists no generally accepted definition of green entrepreneurship.

Inspired by the definitions by Taylor et al., (2003) and Dean and McMullen (2007) as well as by the thoughts of Schaper (2005), this paper employs the following definition of green entrepreneurship: Green entrepreneurship is a phenomenon which incorporates holistic approach towards entrepreneurship wherein, individuals and organizations engage in entrepreneurial activities that create environmental benefits by offering green final products or services considering the four factors which is termed as 4R Reduce, Refuse, Recycle and Reuse.



## REVIEW OF LITERATURE

Green entrepreneurs have considerable potential to contribute to mastering the pressing environmental problems of our time through the introduction of new, environmentally friendly products (Schaper, 2005) and through catalyzing an overall shift of business strategies towards more sustainable products and processes (York and Venkataraman, 2010). The present study extends the concept on need for green entrepreneurship in India which is currently remains under-researched. Given the growing concerns about global warming there is a pressing need to change current business practices – which are widely understood to be the main cause of pollution and environmental degradation – and reach more sustainable modes of operation. To date, research concerning business and the environment has mostly been conducted in the scholarly field of sustainability and focused on greening large, existing enterprises (Schaper, 2002). Recently however, researchers in the field of entrepreneurship have increasingly devoted their attention to the interrelation between businesses and the environment, in particular, to the role of entrepreneurs and their small and medium sized enterprises in the development towards a more sustainable commercial and economic system (Parrish, 2007). In fact, researchers' interest is driven by the conviction that green entrepreneurs have considerable potential to contribute to mastering environmental challenges through the introduction of new, environmentally friendly products (Schaper, 2005). Moreover, green entrepreneurial activity has been recognised as important driver in the overall shift of business strategies towards more sustainable products and processes (O'Neill et al, 2009; York and Venkataraman, 2010). Thus, research in this field provides valuable insights on the impact of entrepreneurial activity beyond its contribution to economic growth.

However, despite the fact that green entrepreneurship has received increasingly more attention from entrepreneurship scholars in the past years, available literature is scarce and, most importantly, there is still a lack of large-scale empirical research. Specifically, past research has mostly been theoretical or based on relatively few case studies, rather than empirical and based on

large-scale data, which is hampering the progress of the field. Accordingly, the knowledge about green entrepreneurship and the related process individuals pass through when setting up a green business remains limited, leaving many informative research areas to be explored.. Although there is much more attention being paid to the greening of Small and Medium scale Enterprises of late until recently there has been surprisingly little on green entrepreneurs in the UK literature, apart from numerous references to the high profile green entrepreneur success story of Anita Roddick and the Body Shop. Perhaps this lack of research is because intuitively, environmentalism (collectivist and communitarian orientated) and entrepreneurship (individualist, consumption orientated) can be seen as intrinsically hostile. But the theme is that environmentalism and entrepreneurship actually share commonalities in terms of social process and attitudes and that entrepreneurship is more likely to sustain environmentalism than any other form of imposed change. He argues that entrepreneurship is unique in that it is the only business form that can directly incorporate and consolidate the values of the individual, and that the moral dimension of environmentalism can empower entrepreneurship. Examples are provided of environmental entrepreneur, whose common factor is that they 'sell' immaterial goods or culture; they extract both financial and moral value.

Most of the existing literature on organizational greening in general, and that specifically addressed at SMEs, focuses on greening existing businesses (see Business Strategy and the Environment journal; also for SMEs see Corporate Social Responsibility and Environmental Management journal.. Academic perspectives on corporate environmental strategy and performance typically theorize stage models of corporate environmental improvement in which companies progress from a resistant/reactive stance to a sustainable or transcendent state. But clearly an additional and significant element of moving towards a sustainable future is new green business formations, or green start-ups. Ecopreneurs are increasingly being seen as crucial change agents, or champions, driving the collective learning process that society needs to engage in (Isaak 1998). Isaak presents a 'green-green time

and risk reduction for sustainable development' learning curve that envisages society moving from decadence (preoccupation with instant present gratification and high risk-taking), through reformism (greening of existing businesses), and creation (epitomizing green values, green screens, green careers) to green-green ecopreneurship – ie. 'radically reducing risk to the natural environment by supporting only green-green ecopreneurship and sustainable economic growth' (Isaak, 2002). Whilst acknowledging that elements of all four of these 'stages' probably exist concurrently in the current business scene, the focus of this paper is businesses founded with the last stage vision in mind; in other words, green-green start-ups. The Body Shop and Ben and Jerry's are presented by Isaak (1998) as the epitomy of successful green-green businesses, that is, they start up green from scratch and are system-transforming, socially committed and technologically up-to-date breakthrough ventures.

#### **RATIONALE OF THE STUDY**

This study is being done to know more about the green entrepreneurship giving emphasis on Indian entrepreneurs. Moreover, green concept is an emerging area in the business all over the world and environmentally friendly or eco-friendly products is the buzzword used by people throughout the country. To understand this, researcher is keen in knowing the various aspects of green entrepreneurship. The related literature done concerning green entrepreneurship is limited in an Indian context. Currently the small scale entrepreneurs who are into business don't have any regulatory agency to support and control them and those entrepreneurs don't know the actual importance of entrepreneurship. In general there is no holistic approach in the existing state of affairs.

To reduce wastes and make our environment friendly first of all individual person should start implementing the greener concept by keeping his place environment friendly by reducing and refusing the plastic cover for instance. There is a proverb in English which says "charity begins at home". Eventually the individual person will influence the people nearby to do the same. Similarly, organizations too should follow by introducing green products

as a result the entire planet can be sustained in the coming future.

#### **OBJECTIVE OF THE STUDY**

The present study being exploratory in nature was undertaken with the primary objective of understanding the status of "green entrepreneurship" in Indian context.

#### **METHODOLOGY**

After reviewing the related literature on Green entrepreneurship it is observed that the empirical evidences on the research work is limited. Looking into this aspect the methodology adapted in this research will be first secondary Metaanalysis study of existing literature and interview with experts. Next level of methodology is to bridge the gap between existing state and desired state

The method adopted in this research is qualitative research wherein secondary Metaanalysis of existing literature was carried out in order to know more about the concept of green entrepreneurship. The opinion of few entrepreneurs were recorded to elicit factors which are likely responsible for green entrepreneurship. Due to limitation of time factor and lack of knowledge of green concept the study was carried out meeting few people who are involved with green products

#### **RESULTS AND DISCUSSIONS**

Interview schedule was prepared to probe more into the various aspects of green entrepreneurship. After having interviewed people basically small scale entrepreneurs in Bangalore and Kerala region the various factors arrived at were: After interviewing and meta analysis of existing literature on green entrepreneurship it was found there is a gap in implementing green entrepreneurship in Indian context. To know the various factors for these gap in the study researcher has arrived at the factors considering the green process which lies in the existing state and after thoroughly understanding it to connect to the desired state i.e., future state. The question raised before interviewing was the researcher had kept in mind the required things to be known by an entrepreneur without the role of government and regulatory agencies. This paper tried to relate the

existing literature by Metaanalysis of collecting more information about green entrepreneurship in Indian context. The current scenario which is prevailing in india is isolated i.e., all the ideas about the green concept is not clear at one end. On the other end, though the entrepreneur is aware of the concept and practicality perhaps there is no support for him to go ahead.

There is no holistic approach in the existing stage because many small scale entrepreneurs are not aware of the complete green entrepreneurship or green concept and there are entrepreneurs who are not bothered about it because they have to be funded by the government and there should be regulatory agencies to monitor this emerging area of entrepreneurship. Due to limitations of time 5 people were interviewed who are entrepreneur out of which 3 had awareness about the green concept and remaining of them had rough idea about green entrepreneurship. Table 1 is highlighting the important points and remaining points which are irrelevant are not recorded in the results. After qualitative information collected from the experts the following factors were noted which is given below:

**No holistic approach:** As per the views given by interview it is being found that there is no holistic approached followed in the green entrepreneurship. Entrepreneurs thinks about himself and he doesn't have any regulatory pressure.

**No family support:** people around ie., every individual should realize the importance of green entrepreneurship for sustenance of environment friendly products.

To sustain the entire planet and associated elements within the following again few factors were derived which should be taken care at most which include Recycling; every individual should recycle the waste or associated products so that we can keep the environment clean and tidy. The role of government is very important. Government should take initiative in propagating the concept of green entrepreneurship to everyone as a result individual will be able to realize the importance and work towards the betterment of business. Lastly awareness is very important.

## CONCLUSION

The green entrepreneurship concept in India is in very infant stage because of lack of connectivity of awareness among the stakeholders.

Everyone who is interested in green business should start thinking about recycling mechanism wherein waste products can be converted to useful form which makes business grow. Most of the people in India are not bothered about the environment the plastic covers, wastes are thrown in whichever place. As a result ecology planet is facing severe threats because of wastes. To protect the entire planet, to sustain the future human beings should give a thought for green business which is the future business.

## References

- Berle, G. (1991). *The Green Entrepreneur: Business Opportunities that Can Save the Earth and Make You Money*. Blue Ridge Summit, PA: Liberty Hall Press.
- Dean, T. J., and McMullen, J. S. (2007). Toward a Theory of Sustainable Entrepreneurship: Reducing Environmental Degradation through Entrepreneurial Action. *Journal of Business Venturing*, 22 (1), 50-76.
- Isaak, R. (1997). Globalization and Green Entrepreneurship. *International Journal of Green Management*, 18, 80-91.
- Isaak R (1998). *Green Logic: Ecopreneurship: Theory and Ethics*, Sheffield Greenleaf Publications, London, UK.
- Isaak, R. (2002). The Making of the Ecopreneur. *International Journal of Green Management*, 38,81-91.
- Larson, A. L. (2000). Sustainable Innovation through An Entrepreneurship Lens. *Business Strategy and the Environment*, 9 (5), 304-17
- Lead Beater C (1997) *The Rise of the Social Entrepreneur*, London: Demos.
- Parrish, B. D. (2007). Designing the Sustainable Enterprise. *Futures*, 39 (7), 846-860.
- O'Neill, G. D. Jr., Hershauer, J. C., and Golden, J.S. (2009). The Cultural Context of Sustainability Entrepreneurship. *Greener Management International*, 55, 33-46.
- Schaper, M. (2002). The Essence of Eco-entrepreneurship. *Greener Management International*, 38, 26-30.
- Schaper, M. (2005). Understanding the Green Entrepreneur. In M. Shaper, (Eds.) et al., *Making Ecopreneurs: Developing Sustainable Entrepreneurship* (3-12). Hampshire, UK: Ashgate Publishing Limited.
- Taylor, David and E.E. Liz Walley (2003). *The Green Entrepreneur: Visionary, Maverick or Opportunist?* WPS047,4-12, Manchester Metropolitan University Business School Working paper Series Online
- York, J.G., and Venkataraman, S. (2010). The Entrepreneur-Environment Nexus: Uncertainty, Innovation, and Allocation. *Journal of Business Venturing*, 25 (5), 449-463.

Table 1: Results of Interview Schedule

Sr. No.	Interview questions	Results
1	What is green concept	As you know Green concept is nothing but environment friendly. It can be applied to business
2	Are you aware of green products	Yes. I am aware of it
3	Can you tell something more about green products?	Green products are harmless to environment. As a businessman I am aware of it but implementing it is quite difficult task because we have to imbibe the culture of reducing, refusing and recycling the products which is an entirely a new phenomenon in Indian context
4	What is Green entrepreneurship	It's entirely a new concept in indian business because of various reasons ofcourse yes green entrepreneurship is an emerging concept in the field of entrepreneurship. As an entrepreneur I feel there is no support from the government. Moreover there are no regulatory agencies to support green entrepreneurship.
5	Have you taken initiative to implement green entrepreneurship	As I said earlier that there are no regulatory agencies to support green entrepreneur. It is quite different for small scale entrepreneurs to implement green business yet we are giving thought to implement green products as everyone should be involved in the system without which it's quite difficult to do it.
6	Do you adopt any strategies particular to green entrepreneurship	Yes. The concept is similar to marketing mix. In green business, it can be named as Green marketing mix. For small scale entrepreneur entrepreneurs implementing strategies takes long time as there are no guidance given to us to move forward
7	Green entrepreneurship is implemented in Foreign countries .But India it is taking time though it is good at agriculture. Why?	You know that though we are strong in agriculture in our country implementing new thing it takes long process because government should take initiative, along with researchers who are constantly involved with innovations especially in this green concept. Besides framing policies and policies at place. There is gap in all aspects of our society. We can't force any person to take initiative. It's all about the time and team work which we will be able to implement green entrepreneurship.

## THE EVOLVING ENVIRONMENT OF BUSINESS EXCELLENCE IN INDIA: AN EMPIRICAL ANALYSIS

Shelja Jose Kuruvilla\* and B. V. R. Murty\*\*

*The present study deals with a search for an Indian perspective on business excellence. It focuses on what people at large think about Indian companies and an ideal or excellent Indian organization. In this study three best Indian companies SBI, Infosys, and L & T were compared using eight parameters. Infosys is clearly perceived and associated with the words "business excellence". Attempt have been made to analyze the parameters that creates difference in the organizations. Thus, the study attempted not only to identify an ideal Indian organization, but also to find out the directions for organizations to work towards becoming excellent or ideal organizations.*

### INTRODUCTION

Over the centuries, great thinkers have attempted to describe, what excellence is. It has been observed that researchers always argue about the concept of business excellence and thus no one gets agree with other's view regarding business excellence and its constituents. In India, business organizations are facing challenges due to globalization, deregulation of markets and changing consumer behavior. This results into competition, which shape organizational capabilities. Unless internal processes, people, procedures, and structures are aligned to develop strategies for continuous improvement and excellence, survival let alone growth can be in jeopardy. Organizations which develop flexible processes, capacities and decision making are able to adjust and thrive in this turbulent marketplace. In an emerging economy like India, the future market leaders will be those, who could take the advantage of the low-cost opportunities and quickly expanding global markets by boosting of operating efficiencies, delivering the better and more personalized customer services (Jha, 2008). For an Indian organization to be competitive in the global markets, adherence to global standards of excellence is also very important.

Since 1950s, various models for business excellence have been formulated for awarding excellence in various parts of the world. Business Excellence (BE) models can be viewed through

two lenses: first, as an instrument to measure, what an organization does and what results it achieved for its key stakeholders, and secondly, as a representation of theory to explain and predict how those stakeholder results are achieved through the continuous improvement of the enablers of excellence. (Flynn and Saladin, 2001; Kanji, 2002; Jayamaha, et.al., 2009).

### Achievement of Results Viewpoint

From the moment people invented money, it became the universal point of comparison -some companies made money and some did not. Money paved the way to prosperity in the business. The slogan 'Make Money' appeared and was soon making money was equated with achieving excellence. Fortunately, such matters did not continue and efforts were made to include more than just money in assessing the performance of organizations. The quality movement probably saw a sea change in a new direction. Business excellence frameworks and quality awards play an important role in evaluating and elevating organizations towards performance excellence (Grigg and Mann, 2008). The link between business excellence and quality is based upon the assumptions that the quality of management is the overall cause of business excellence. Good results are function of both the effective use of the system and the intellectual capital in the company. The two most popular business excellence models based on quality are: The Malcolm Baldrige National Quality Award

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Mobel, (1987); and European Excellence Model for Quality Management (EEQM, 1992), (Jha, 2008).

Business excellence, as described by the European Foundation for Quality Management (EFQM), refers to the outstanding practices in managing the organization and achieving results, all based on a set of eight fundamental concepts. These concepts are results orientation; customer focus; leadership and constancy of purpose; management by processes and facts; people development and involvement; continuous learning; innovation and improvement and partnership development, and public responsibility. (Grigg, and Mann, 2008). In order to gauge excellence, the most popular and influential model in the western world is the Malcolm Baldrige National Quality Award Model (also known as the Baldrige model, the Baldrige Criteria, or the Criteria for Performance Excellence), launched by the US government. More than 60 national and state/regional awards base their frameworks upon the Baldrige criteria. But, most organizations have come to the conclusion that excellence is not perfectionism. Rather, it is the best result that can be produced at a particular moment in time, excellence is a journey through an ever changing landscape of new possibilities and methods.

### **Continuous Improvement Viewpoint**

Mann and Saunders (2005) identified that there exists strong correlation between enablers and business results. Hendricks and Singhal (2000) studied the long-term effects of implementing effective BE programmes. Using the winning of US Baldrige awards as the criterion to select organizations, their research showed a strong link between business excellence and financial performance. They found that US business excellence award winners experienced increased income, sales and total assets, during their respective post-implementation periods as compared with their controls.

Excellence is not an act, but a habit. Therefore, excellence is something that can be achieved, but it can also be quickly lost as well. In a nutshell, today's excellence is tomorrow's mediocrity. It has been observed that excellent firms don't believe in excellence – only in constant

improvement and constant change. This indicates that excellence in business requires constant improvement to current processes, systems and goals. Any business, which is not striving to be more excellent will soon find itself obsolete or out manoeuvred by its competition (Excellence in Business, 2011). In the drive towards excellence leadership plays a strategic role.

### **Leadership and Business Excellence**

Kaplan and Norton (1992) came out with the concept of a balanced score card which can track the key elements of a company's strategy from continuous improvement and partnership to teamwork and financial measures. According to Kanji (2008), leadership is not just one more criterion, it is the prime aspect of any business excellence model, showing that leadership is responsible for driving the organization in every area towards quality and excellence. This is also implicit in TQM, which recognizes not only continuous quality improvement, but also the assertion that people make quality. A participative style of leadership can be seen to be essential in the building of a corporate vision. The attainment of an organizational vision is dependent upon the mobilization of bias and the pursuit that mobilization must be of the many not of the few. Leaders must achieve and adhere to their highest quality standards in order to motivate by example their workforce.

### **Cost of Excellence**

In the search of excellence and quality, one of the major variables that disturb organizations is cost. In an attempt to improve business results – as in profits, companies went in for extensive cost cutting. The experience of the many years of business development has showed that the fight for quality, as a rule, leads to cost decrease, while the fight for cost decrease more often than not leads to quality decrease. This means that the attempts to decrease costs without their link to quality are counterproductive and lead to the fall of customer satisfaction. Business improvement though the quality doorway usually involves the use of technology, setting up of better systems and practices and real improvement

(Adler and Shper, 2010). Business excellence can therefore, be regarded as the overall way of working that balances stakeholder concerns and increases the probability of long-term organizational success through operational, customer-related, financial and marketplace performance excellence (Edgeman and Scherer, 1999).

### Business Excellence in India

In the past few years, Indian companies have made considerable progress in introducing and developing quality management systems. Leading Indian firms have started on the road to TQM by introducing TQM as a coherent concept, but more often by adopting only some important TQM principles. It appears that Indian companies duplicate the path of quality management systems' development worked out by the majority of companies from highly developed countries, which is clearly marked out by market pressure on the companies for increased performance.

Apart from the commonly used models, the Confederation of Indian Industry (CII) and Exim Bank in India have come together and have instituted CII-Exim Excellence award in India based exactly on the European Model for Excellence. Many Indian companies are applying this model for moving towards business excellence and making their companies competitive and world class. This was instituted in 1994 and is considered to be the most prestigious award in India for business excellence that an Indian company can receive. The award was established to promote the awareness of business excellence as an increasingly important element in competitiveness (Jha, 2008).

During literature review, it has been observed that little research though has looked into business excellence in India. Work though in the related area of quality is quite significant. Sharma (1997) has studied TQM implementation approach in selected 150 companies in Indian engineering industries. Jain (1998) published a book titled Corporate Excellence in which twenty case studies have been published with a view of looking at change management strategies in those companies for achieving corporate excellence. Mehta, (1999), has given a general framework for TQM and business excellence in the Indian com-

text. He has also looked into the role of Government and Economic Operators in India.



**Figure 1: Framework for Business Excellence**

(Source: Peters and Waterman, 1991)

Most of the quality based studies involved self assessment with its in-built bias, as a form of data collection. While some books have looked at cases studies like Jim Collins, Good to Great. Peters and Waterman (1991) who went in search for what made companies excellent. They have proposed eight attributes of excellence. These attributes were: a bias for action; being close to customers; autonomy and entrepreneurship; being productive through people;

an active value system among all levels; a simple and lean staff; simultaneous loose tight properties and sticking to the knitting. (Refer Figure 1). Based on these attributes, Sharma, et.al., (1990) developed a 16 item scale to measure the eight attributes of excellence (EXCEL scale). Though originally conceptualized as an eight factor measure based on eight attributes, factor analysis revealed a single higher order factor structure. Therefore, the scale is also used to compute the total Business Excellence score.

### METHODOLOGY

*The Study:* The study is empirical in nature and is based on the perception of general public regarding excellence practices in Indian companies.

*The Sample:* For the purpose of sample, three organizations – State Bank of India (SBI), Infosys and L&T – were chosen based on the fact that they have continuously been rated as the best in India. Care was also taken to ensure that the companies that topped their respective industries were taken to represent the best practices in the said industry. The industry is represented by presenting their close competition. SBI was also chosen along with Infosys and L & T as it is one of the successful public sector companies in India. The sample size was 101.

*Tools for Data Collection:* Data has been collected with the help of a self designed questionnaire. Basically, it was highlighting business practices based on the “In search of excellence” parameters as suggested by Sharma, et.al., (1990).

*Tools for Data Analysis:* The scales were tested for reliability using the Cronbach Alpha (Table 1). The statistical analysis was undertaken with the help of SPSS 17.0. One sample t-test has been used to compare the organisation, which was followed by discriminant analysis.

## ANALYSIS AND FINDINGS

Based on the mean ratings (1-Poor, 2-Good, 3-Excellent) achieved by the twelve companies studied, all twelve companies were considered to be good or above in corporate performance. It was found that respondents were perceiving Infosys to be the best organization, closed followed by SBI and TCS respectively. HDFC and ICICI were found to be on the lowest score of excellence by the respondents (Table 2). The results (Table 4-10) indicates that only Infosys is perceived as out-performing, as it was matching the national average. Both L&T and SBI are under performing significantly on same parameters. While Infosys has an overall score of 3.37 out of 5, the comparative ratings for SBI and L&T was 3. SBI was under performing significantly along all parameters except on staff strength, which in spite of the general opinion to the contrary, the respondents have rated as lean and in tune with the national average. At the same time, L&T was perceived to be matching the benchmark only on the parameters “sticking to knitting” (i.e resistance to conglomeracy and focus on what is known or done best) and “simultaneous loose tight properties”.

Using the overall mean (3.35) as the estimation of business excellence of Indian Companies as the minimum benchmark for excellence expected from the three successful companies in the analysis, deviations from the same were calculated using the one sample t-test (Table 4-10). The rating given to the 12 companies was recoded in order to identify three groups, the excellent rating, the good rating and the poor rating. This rating was used as the dependent variable in a discriminant analysis as to which parameters among the eight were most able to discriminate between the three groups. Chance classification expected is 33 percent, therefore, a classification of 51.2 percent (Table 13), indicates the ability of the only selected variable (Table 12) in the step wise discriminant analysis to discriminate between the groups. Tables 10-11 indicate that in case of the variable “Encourage Innovativeness”, the function was observed to be significant.

## CONCLUSION

In order to be successful in the emerging markets, business organizations should be forced constantly to improve upon quality and be systematic in creating innovations, while not forgetting the costs. Simultaneously, there must be a high level of mutual trust among the employees harnessed by a participative style of management, which encourages exchange of knowledge. It is true that to be excellent in the future, organizations should be globally and locally responsive to a changing business environment and reflect best practices across the globe in its systems. The most important variable perceived to make an impact of business excellence is openness to innovation. Innovation and a culture of continuous innovation can therefore be considered the most important step to business excellence in India and this is the main reason, which made Infosys to be perceived as the best organization in India.

## References

- Adler, Y., and Shper, V. (2010). Business and Quality: in Search of Excellence. *Current Issues of Business*, 285-294.
- Flynn, B.B., and Saladin, B. (2001). Further Evidence on the Validity of the Theoretical Models Underlying the Baldrige Criteria. *Journal of Operations Management*, 19(6), 617-652.
- Grigg, N., and Mann, R. (2008). Review of the Australian Business Excellence Framework: A Comparison of National Strategies for Designing, Administering and Promoting Business Excellence Frameworks. *Total Quality Management*, 1173-1188.
- Jha, V. S. (2008). Strategic Flexibility for Business Excellence -The



Role of HumanResource Flexibility in Select Indian Companies. *Global Journal of Flexible System Management*, 41-51.

Jayamaha, N., Grigg, N., and Mann, R. (November 2009). A Study of the Validity of Three Major Business Excellence Models in the Asia Pacific Region. *Total Quality Management*, 20( 11), 1213-1227.

Kanji, G.K. (1998). Measurement of Business Excellence. *Total Quality Management*, 9 (7), 633-643.

Kanji, G.K. (2000). *Measuring Kanji's Business Excellence Index*. The 44th EOQ Congress, Budapest, 2, 163-170.

Kanji, G.K. (2002). Performance Measurement System. *Total Quality Management*, 13 (5), 715-728.

Kanji, G. (2008). Leadership is Prime: How do you Measure Leadership Excellence. *Total Quality Management*, 417-427.

Kaplan Roben S. and Norton David P (2000). *The Strategy Focused Organization - How Balance Score Card Companies Thrive in the New Business Environment*, Hanard Business School Press. Boston, USA

Hendricks, K., & Singhal, V. (2000). *The impact of total Quality Management (TQM) on Financial Performance: Evidence from Quality Award Winners*. Atlanta, GA: Georgia Institute of Technology.

Mehta Janak (1999) Business Excellence through Quality – Indian Experience. *Total Quality Management*. 10 (4 & 5), S647-S652.

Mann, R.S., & Saunders, M. (2005). Self-assessment in a Multi-organisational Network. *International Journal of Quality and Reliability Management*, 22(6), 554-571.

Sbarma Sunil (1997). *TQM in Indian Engineering Industries*, Business Publications Inc.. Mumbai.

Tannenbaum, R., and Schmidt, W.H. (1973). How to Choose a Leadership Pattern. *Harvard Business Review*, May/June.

**Webliography**

Excellence in Business. (n.d.). Retrieved May 22, 2011, from <http://excellenceinbusiness.org/>.

**Table 1: Scale used for Data Collection**

<b>EXCEL Scale (Cronbach alpha= 0.935)</b>	<b>Attribute Studied</b>
The Firm encourages Employees to develop new ideas	Autonomy and entrepreneurship
The Firm delegates authority efficiently	A simple and lean staff
The top management in the firm believes that its people are of utmost importance to the copmany	being productive through people
The firm instills value systems in all its employees	An active value system among all levels
The Firm provides personalized attention to all its customers	Being close to customers
Top management creates an Atmosphere that encourages creativity and innovativeness	Autonomy and entrepreneurship
The values of this organization are the driving force behind their operations	An active value system among all levels
The Firm is flexible and quick to respond to problems	A bias for action
The Company concentrates on areas where it has high level of skill and expertise	Sticking to the knitting.
The Firm has efficient management teams	A simple and lean staff
The company develops products that are natural extensions of their product lines	Sticking to the knitting.
This Firm truely believes in its people	being productive through people
The firm believes in experimenting with new products and ideas	Autonomy and entrepreneurship
This Firm considers after sales service just as important as making the sale	Being close to customers
The Company believes that listening to consumers is a good skill to have.	Being close to customers
The company is flexible with employees but administers descipline when required	Simultaneous loose tight properties

**Table 2: Mean Ratings of Perceived Business Excellence**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Infosys	96	1.00	3.00	2.4271	.59374
SBI	96	1.00	3.00	2.4063	.68944
TCS	95	1.00	3.00	2.3895	.58881
Tata & Sons	96	1.00	3.00	2.3542	.75365
ONGC	96	1.00	3.00	2.2604	.69955
Wipro	93	1.00	3.00	2.2581	.58798
L&T	96	1.00	3.00	2.2396	.70703
Reliance	96	1.00	3.00	2.2187	.81050
ITC	96	1.00	3.00	2.1667	.65961
Aditya Birla	96	1.00	3.00	2.1354	.62610
HDFC	96	1.00	3.00	2.1146	.66285
ICICI	96	1.00	3.00	2.0937	.68176
Valid N	93				

**Table 3: Mean Ratings of Business Excellence Parameters (Indian Companies)**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Stick to knitting	98	1.00	5.00	3.4745	.88624
Close to customer	97	1.33	5.00	3.4433	.82316
Bias for Action	99	1.00	5.00	3.4242	1.04091
Value Driven	98	1.50	5.00	3.3571	.83728
Simultaneous loose tight property	99	1.00	5.00	3.3232	1.11418
Simple and lean staff	97	1.00	5.00	3.3093	.85221
Autonomy and Entrepreneurship	98	1.00	5.00	3.1122	.88960
Productivity through People	98	1.00	5.00	3.1020	.78307
Valid N	92				

**Table 4: One-Sample Statistics (Infosys)**

	N	Mean	Std. Deviation	Std. Error Mean
Bias for Action-Infosys	97	3.3918	1.12321	.11404
Close to customer-Info sys	97	3.3711	.91777	.09319
Autonomy and Entrepreneurship- Infosys	97	3.3969	.98409	.09992
Productivity through People - Infosys	97	3.3299	.92389	.09381
Value Driven- Infosys	97	3.2629	1.01574	.10313
Stick to knitting-Infosys	97	3.5052	.92841	.09427
a Simple and lean staff-Infosys	97	3.4381	.95541	.09701
Simultaneous loose tight property- Infosys	97	3.3299	1.10606	.11230

**Table 5: One-Sample Test (Infosys)**

	Test Value = 3.35					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Bias for Action-Infosys	.366	96	.715	.04175	-.1846	.2681
Close to customer-Infosys	.227	96	.821	.02113	-.1638	.2061
Autonomy and Entrepreneurship-Infosys	.469	96	.640	.04691	-.1514	.2452
Productivity through People-Infosys	-.214	96	.831	-.02010	-.2063	.1661
Value Driven-Infosys	-.845	96	.400	-.08711	-.2918	.1176
Stick to knitting-Infosys	1.646	96	.103	.15515	-.0320	.3423
Simple and lean staff-Infosys	.909	96	.366	.08814	-.1044	.2807
Simultaneous loose tight property-Infosys	-.179	96	.858	-.02010	-.2430	.2028

**Table 6: One-Sample Statistics(SBI)**

	N	Mean	Std. Deviation	Std. Error Mean
Bias for Action-SBI	97	3.0000	1.10868	.11257
Close to customer-SBI	97	3.0378	0.92	.09306
Autonomy and Entrepreneurship-SBI	97	2.8866	.83074	.08435
Productivity through People-SBI	96	3.0625	.87735	.08954
Value Driven-SBI	97	2.9278	1.00257	.10180
Stick to knitting-SBI	97	3.0567	1.02031	.10360
Simple and lean staff-SBI	96	3.2031	.91645	.09354
Simultaneous loose tight property-SBI	98	2.9694	1.11646	.11278

**Table 7: One-Sample Test (SBI)**

	Test Value = 3.35					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
Lower					Upper	
Bias for Action-SBI	-3.109	96	.002	-.35000	-.5734	-.1266
Close to customer-SBI	-3.355	96	.001	-.31220	-.4969	-.1275
Autonomy and Entrepreneurship-SBI	-5.494	96	.000	-.46340	-.6308	-.2960
Productivity through People-SBI	-3.211	95	.002	-.28750	-.4653	-.1097
Value Driven-SBI	-4.147	96	.000	-.42216	-.6242	-.2201
Stick to knitting-SBI	-2.831	96	.006	-.29330	-.4989	-.0877
Simple and lean staff-SBI	-1.570	95	.120	-.14688	-.3326	.0388
Simultaneous loose tight property-SBI	-3.375	97	.001	-.38061	-.6044	-.1568

**Table 8: One-Sample Statistics (L&T)**

	N	Mean	Std. Deviation	Std. Error Mean
Bias for Action-L&T	97	2.8969	1.13178	.11491
Close to customer-L&T	97	3.0584	.97303	.09880
Autonomy and Entrepreneurship-L&T	96	3.0521	.93324	.09525
Productivity through People-L&T	97	3.0361	.93610	.09505
Value Driven-L&T	96	3.0365	.97669	.09968
Stick to knitting-L&T	96	3.1719	1.01263	.10335
Simple and lean staff-L&T	95	3.1263	.96196	.09869
Simultaneous loose tight property-L&T	97	3.0928	1.18218	.12003

**Table 9: One-Sample Test (L&T)**

	Test Value = 3.35					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Bias for Action-L&T	-3.943	96	.000	-.45309	-.6812	-.2250
Close to customer-L&T	-2.951	96	.004	-.29158	-.4877	-.0955
Autonomy and Entrepreneurship-L&T	-3.128	95	.002	-.29792	-.4870	-.1088
Productivity through People-L&T	-3.303	96	.001	-.31392	-.5026	-.1253
Value Driven-L&T	-3.145	95	.002	-.31354	-.5114	-.1156
Stick to knitting-L&T	-1.724	95	.088	-.17813	-.3833	.0271
Simple and lean staff-L&T	-2.266	94	.026	-.22368	-.4196	-.0277
Simultaneous loose tight property-L&T	-2.143	6	.035	-.25722	-.4955	-.0190

**Table 10: Eigenvalues**

Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
1	.259 <sup>a</sup>	100.0	100.0	.454

a. First 1 canonical discriminant functions were used in the analysis.

**Table 11: Wilks' Lambda**

Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1	.794	16.815	2	.000

**Table 12: Canonical Discriminant Function Coefficients**

	Unstandardized coefficients	Unstandardized coefficients
Encourage Innovativeness	1.130	1
(Constant)	-3.822	

Table 13: Classification Results<sup>a</sup>

		Excellence categories	Predicted Group Membership			Total
			1.00	2.00	3.00	
Originals	Count	1.00	16	7	0	23
		2.00	7	26	0	33
		3.00	14	12	0	26
		Ungrouped cases	8	8	0	16
	%	1.00	69.6	30.4	.0	100.0
		2.00	21.2	78.8	.0	100.0
		3.00	53.8	46.2	.0	100.0
		Ungrouped cases	50.0	50.0	.0	100.0
a. 51.2% of original grouped cases correctly classified.						

## COURSE MANAGEMENT SYSTEM AS TOOL FOR CREATION OF ONLINE LEARNING ENVIRONMENT IN HIGHER EDUCATION

Shubham Goswami\*

*Over time, higher education has seen a number of innovations, some revolutionary, others having minimal to no impact. Over the last decade internet and the web offer academic institutions solutions for covering the massive demand for education and transition towards student-centered, social constructivist educational models, in accordance with the demands of the knowledge-based society. This paper reports on the applications of Course Management Systems (CMS) in academic institutions, and evaluating the research directions. The paper explored current uses of CMS in academia, the impact of CMS on the educational processes, faculty and students, the differences among various modes of CMS-based online learning. It was found that CMS are currently used in a variety of disciplines for on-campus, mixed-mode, and complete online courses, yielding positive attitude of students and enabling faculty to create online learning environments.*

### INTRODUCTION

At its simplest a course management system is a tool that allows an instructor to post information on the web without the instructor having to know or understand HTML or other computer languages. A more complete definition of a CMS is that it provides an instructor with a set of tools and a framework that allows relatively easy creation of online course content and subsequently teaching and management of that course including various interactions with students taking the course. CMS systems are often more recognizable to users than the term for the product. Some of the commercial packages currently available include Blackboard, WebCT, Angel, and Desire2Learn. There are also open source solutions available, most notably Moodle and Sakai. Open source software is software developed by a community of users and distributed for others to use without any license fees. Not only are the applications openly shared, but so is the source code for the application, allowing anyone to develop extensions, plug-ins, and fixes to software issues. Most colleges began adopting course management systems after faculty innovators independently created the first online classes, Integrated systems are now used for online, and hybrid courses worldwide, with Blackboard and WebCT are the most frequently used commercial systems.

There are basic elements of CMS that seems to be standard across different platforms. These elements organize information and activities by date, by activity, or by some other logical organizational method. These systems also provide areas for collaboration between the students and the instructor or simply between students themselves, usually in the form of threaded discussion forums. Assignments can be posted by the instructor, students can submit assignments, and resources related to instruction and assignment feedback can all be posted in an easily accessible format. These features, asynchronous communication, file sharing, and assignments are the core of most CMSs.

Additional CMS features tends to include the option of sending external e-mail via the CMS to individuals or to groups such as an entire class. Some systems also support synchronous discussion areas with tools such as a virtual whiteboard that allows participants to type or raw in a live-time shared workspace or, in advanced systems, a screen sharing capability that lets instructors view student screens or display their own screen to students for demonstrations of software or other activities.

### CHANGING CONTEXT OF HIGHER EDUCATION

The higher education systems and institutions world-wide are undergoing contextual transfor-

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mation is a reality. It is observed that as society moves away from an industrial economy (where competitive advantage was based on capital) to an information/knowledge era (where capital is knowledge and the competitive advantage is innovation and creativity) change in education becomes necessary.

### **Increased Adoption of technology by Universities**

The key objective of a higher education system according to the Department of Education (1996) is to provide the effective advancement of all forms of knowledge and scholarships. The significance of these contextual considerations is clarified by the findings of the survey of 500 universities across Europe, Australia, and the Commonwealth countries. Middlehurst, (2003) investigated the challenges and choices for higher education institutions on usage of educational ICT. The study identifies these contexts as key "drivers of change" in institutional technology strategies and processes. It clearly refers to political, social, economic, and technological drivers and trends – on regional, national, and global scale as having various kinds of impacts in higher education institutional choices, strategies, and practices with technology. Within the globalisation discourse for example, it argues that technology has breached walls created by distance, time zones, and the need to work directly with physical objects. The emergence of new providers of higher education (competition driver), of new kinds of higher education provision (innovation driver), and of the demand for education, national policy and global pressures further pressurizes universities to turn to use new technology to fulfill demand.

### **Push for Information Society**

The pressure for universities to contribute to the development of (push for) an information society seem to come from various angles. These include the academic, the business, the technological, the policy and the political sectors. An expectation exists within government quarters and academic circles that universities should play a key role in the establishment of the information society. The prescriptive nature of the argument is likely to influence institutional policy decisions toward technology adoption and use. A link between the activities of a university and

the development of an information society is clearly implied. Equally evident is a belief that universities are, and should use technology to advance knowledge.

### **Economize Time and Place**

Economize on the time of teaching staff, especially when they are also involved in research and administration. The extent of the economy over traditional talk-and-chalk teaching is not yet clear, but for instructors without web development expertise, using a CMS absorbs less time and produces a more professional result of provides a service for students who increasingly look to the internet as the natural medium for finding information and resources. It also facilitates the integration of distance and campus-based learning or of learning on different campuses. For example, accredited institutions such as Chapman College University, Touro University, and Adams State College offer online, on-demand teacher training courses for educators to earn graduate credit and/or masters degree.

According to a research of faculty members using CMS by margin (2003) outline some of the pedagogical reasons (Figure 1) for using CMS in teaching and categorizes them into 4 categories namely, Supplementing course materials to increase student understanding, appeal to different learning style, and increase the time students spend on course material and exercise; Increase faculty-student and student-student communication; Providing greater feedback to student to enhance their learning and increase course transparency.

One of the biggest promises course management systems holds is that it helps the faculty to appeal more easily to the student's diverse learning styles. The research shows that around 63 percent of the faculty respondents believe course management systems do this successfully (Figure 2).

### **LMS vs CMS**

A Learning Management Systems (LMS) can generally be understood as a platform, tool, and environment in which e- Learning takes place. Defining a LMS as an online learning environment however, is inadequate without reference to the functionalities it offers. Table 1, outlines



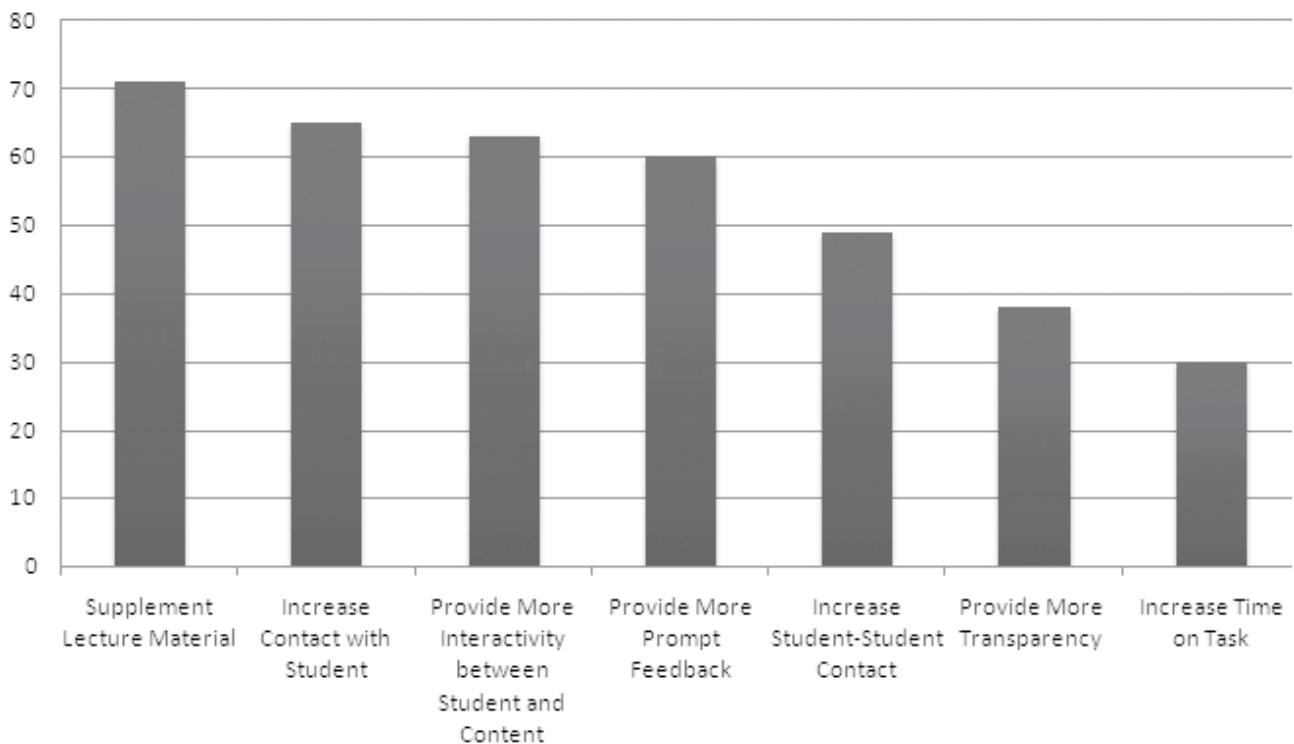


Figure 1: Faculty's Stated Pedagogical Reason for Using a CMS (N = 551)

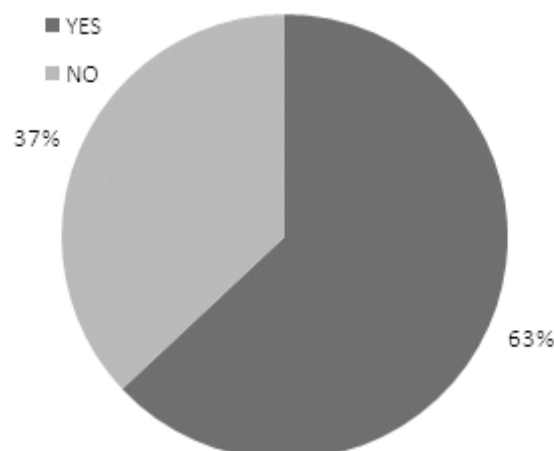


Figure 2: Faculty's Confidence in CMS Capacity to Accommodate Diverse Learning Style (N = 554)

examples of functionalities that distinguish a LMS from course management systems (CMS).

## CHALLENGES

Although easy to use and widely installed CMSs also pose few challenges for their users. Discussions with hundreds of CMS users, including students, instructors, system administrators and support personnel have resulted in the identification of limitations and weaknesses of the current generation of CMS.

- Limited Flexibility:** The systems were designed to function primarily as a repository of materials and do not contain tools for the development of rich multimedia-based instruction. In exchange for the ease of use, most CMSs provide instructors with a limited flexibility in designing course. CMSs typically come with standard sections that instructors must provide, and the section names are not easily altered.

- **Limited Capability:** Although CMS let instructors test students online, the tests must usually conform to templates and e-learning primarily consists of reading transcripts. To add more imaginative and interactive e-learning via authoring tools like Flash and Dreamweaver, instructors must link to separately created materials. That is, the lesson cannot be created and uploaded in the CMS. The material must be created with different tools and stored elsewhere.
- **Limited Testing and Record Keeping Abilities:** CMS allows to students take tests online, some lack the security measures to verify that students are really who they say they are and some have lost tests that students completed before transmitting them to the instructor for grading. In addition, although most CMSs have added capabilities to automatically transfer grades from the grade-book to other systems used to track student progress, this capability is not available in all CMS and often increases the cost significantly.

Similarly, because most universities use other systems to enroll students and manage payments, most CMS cannot check that students have prerequisite courses. CMS do not provide such capabilities for background checking because universities have already made large investments in other systems to do that. The system that is most widely used in universities to manage enrollments and grades, and link to other university records systems is an administration system.

- **Cost:** As the market matures and software publishers add complex features (especially to appeal to the corporate market), prices for CMSs have risen sharply in recent years. Although cost has also driven some universities to strengthen their commitments to their CMSs, it has driven other universities to drop their CMSs and provide open source tools that do not carry a lease or purchase cost.
- **Maintenance** The implication that CMS are as critical to the teaching and learning enterprise as ERP are to the campus administrative effort, means that CMS must be available 24 hours a day, seven days a week, like email and the web, because both faculty and students will be using the CMS at all times. It

means that the effort invested in the selection and subsequent care and feeding of these systems will be comparable to the efforts expended on ERP and that the CMS is the next critical application for the higher education for which IT organization to worry about.

- **Interoperability:** It is presently very difficult to share content between these systems come from different vendors. As more and more materials live within these systems, there needs to be a way to manage and share these materials within and among the institutions.
- **External Links:** Compared to engaging and customizable environments of social software, such as MySpace, FaceBook, YouTube and Second Life, a CMS interface can seem inflexible and boring. Although a number of teaching tools exists within a CMS, tools to guide the instructor in the design of online instruction and in sound pedagogical practice are virtually non-existent.
- **Creativity:** Course management systems impose limitations on instructional creativity and approach. They are not designed to encourage innovative teaching. Products marketed to institutions to help them integrate resources, are designed along the lines of inventory control or commercial enterprise applications.
- **Non Involvement of Faculty:** Decisions about which learning software to use on campus are often made by campus technologists and administrators rather than faculty. Some are familiar with the CMS but can't translate the teaching methods they enjoy and find successful on site to the online environment.

## RECOMMENDATIONS

1. **Functional requirements:** There is no shortcut in selecting the right CMS for an institution, but what is to be considered in the selection process is a issue of major concern. The following are some recommended functional requirement of a CMS.
  - **Content Access:** This area focuses on how learners access the content. This involves the medium (e.g., classroom, CD-ROM, online, etc.) in which the content is delivered, the method (e.g., instructor-led, self-paced, blended) in which the content is delivered, the

language in which the content is delivered and to whom the content is being delivered.

- **Skill Assessment:** Skill assessment revolves around learners assessing their competency gaps, matching those gaps to a prescribed curriculum to address those gaps and developing a learning plan that is attainable and executable to close those gaps that were identified.
  - **Enrollment and Tracking:** Enrollment and tracking considers entries in the course catalog that learners can access, enrollment in event-driven classes and launching of online courses, collecting funds( if required) through an e-commerce process if applicable, tracking activities and completions, and generating reports on the information being tracked.
  - **Learning Evaluation:** The learning and evaluation area involves the creation of survey instruments and test assessments to collect data associated with evaluating the effectiveness and efficiency of learning programs, as well as tools to analyze the data collected.
  - **Content Development:** Content development encompasses authoring, maintaining and storing the learning content. This is where the issues of authoring-tool compatibility, version control and re-usable learning objects are considered.
  - **Marketing and Communications:** This area considers communications between learners and instructors, learners and administrators and even learners and learners to form learning communities. Area also concerned with advertising through the web, e-mail, personal newsletters, personal home pages, etc., as well as communicating status or announcements that learners need to be aware of.
2. **Open Source CMS:** There are many advantages to this practice, from the direct expense involved in commercial versus open source. There are currently two well-known options, Moodle ([www.moodle.org](http://www.moodle.org)) and Sakai ([sakaiproject.org](http://sakaiproject.org)). Other products that are available include OLAT ([www.olat.org](http://www.olat.org)), Ilias ([www.ilias.de](http://www.ilias.de)), Dokeos ([www.dokeos.com](http://www.dokeos.com)), Bazaar ([www.ohloh.net/projects/5085](http://www.ohloh.net/projects/5085)), Atutor ([www.atutor.ca](http://www.atutor.ca)), and Interact ([www.interactole.org](http://www.interactole.org)), along with others CMS applications to administrative concerns about access and control of content and program stability.
- Course/Learning management systems designed with a more constructivist pedagogy in mind such as Moodle, Joomla, or Drupal make it possible for a novice instructor to explore pedagogical options more freely.
  - Organization in Moodle, for example, is not by type of content but by week or topic, like a regular class syllabus. Many of the newer systems are open source, which increases institution-wide customization options.
  - There is really nothing significantly different about teaching through and open source CMS versus a commercial CMS. What is different is the tool itself, and the support and ease of use offered by competing systems.
  - In the final analysis cost, while obviously an important factor for many organizations, may not be the most important consideration in pursuing open source activities. It may be that accessibility, stability, and control are the deciding factors in moving to an open source solution for facilitating educational communication.
3. **Vendor Selection:** It is also very important to consider some following business relationship areas when selecting vendors.
- **Financial Stability:** The financial stability of a vendor is of key importance in predicting their future in their industry. The learning management industry is a very competitive market that has seen some mergers and acquisitions as well as vendors going out of business. Consider the rating of the CMS vendor from financial reports and, if possible, reports from research firms.
  - **Account Management:** Customer service is a key area to consider in a vendor, and talking with references can be critical in understanding how responsive a vendor actually is.
  - **Support:** When things go wrong, support is needed. Having a strong support structure will make a lot of difference when faced with irate customers. Consider a clearly stated service-level agreement that explicitly outlines roles, responsibilities and response expectations.

- **Pricing:** Pricing is obviously important. When considering pricing, also consider the quality of the product and what it might cost if another vendor was selected that didn't conform to quality expectations. In the final analysis, the pricing is always negotiable, so it is fair to consider what payment would be expected for the functionality you expect to be used.

## CONCLUSION

Despite a lack of consensus on the actual impact that technology should have in teaching and learning, the adoption of e-Learning practices is growing in academia. The impact of new technologies in teaching and learning is seen as positive. CMS is considered part of a solution to addressing the changing learning needs of societies. Faculty have quickly committed to the CMS for what it offer in good, tool-rich design. CMS have significantly changed the educational experience in many courses. The number of faculty and students committed to using CMS in growing, and these constituencies should not be neglected. But difficult choices lie ahead both for CMS vendors and for institutions for higher education. The results of study showed that higher education institutions that prefer a CMS strategy, considerable enhance the flexibility in delivery of education by using e-Learning. They

do so because they aim for increasing access, i.e., for attracting more students and in this way generate more income. By doing so, it is expected that these higher education institutions are better prepared to respond to an environment that is becoming increasingly more market-oriented and competitive.

## References

- Anthony A. Piña (2007), Course Management Systems: Overview and Implications for Libraries, *Library Hi Tech News*, 24 (5), 7-9.
- Department of Education (DoE) (1996). Green Paper on Higher Education Transformation, December 1986, (in [www.info.gov.za/greenpapers/1996/highereduc.htm](http://www.info.gov.za/greenpapers/1996/highereduc.htm) accessed on 8 April 2010).
- Kempfert, T. (2003). UW Selects Desire2Learn as its New e-learning System, *Teaching with Technology Today*, 9 (7), 1-2.
- Middlehurst, R (2003). *Competition, Collaboration and ICT: Challenges and Choices for Higher Education Institutions*; University of Surrey, In van der Wende M & van der Ven M (eds).
- Morgan, G. (2003). Faculty Use of Course Management Systems, CO: EDUCASE. *Center of Applied Research*, 2, 2003.
- O'Leonard, K., Bersin, J. (2006). *Learning Management Systems 2006: Facts, Practical Analysis, Trends and Vendor Profiles*, Bersin & Associates, Oakland.

## Webliography

- Deloitte, Touche, LLP. (2007), 2006 Canadian Technology fast 50 Winners, available at: [www.deloitte.com](http://www.deloitte.com)
- Eduventures (2007), Postsecondary Academic Computing: Identifying Opportunities beyond LMS, available at: [www.eduventures.com](http://www.eduventures.com).

**Table 1.1: Learning Management System (LMS) Vs Course Management Systems (CMS)**

Functionalities	Course Management Systems (CMS)	Learning Management Systems (LMS)
Support for ongoing class room courses	√	√
Enrollment		√
Automatically generated confirmation notes		√
Course catalog		√
Skills management list		√
Checks for prerequisites before allowing enrollment		√
Seamless link to e-learning		√
Automatically generated follow-up correspondence		√
Grade book	√	√
Administer tests and quizzes	√ (with some limitation)	√
Automatically transfers completion information to the permanent record		√
Discussion board for between-class conversation	√	sometimes

Source: Carliner (2005), In [Learning Circuits.org-www.learningcircuits.org/2005/nov2005/carliner.htm](http://LearningCircuits.org-www.learningcircuits.org/2005/nov2005/carliner.htm)

## REJUVENATING 'KNOWLEDGE' IN ORGANIZATION – THE COMPETENCE MANAGEMENT APPROACH

Shulagna Sarkar\*

*We live in the age of interdependence, where every organization's growth is depending on its employees. 'Nahin Gyanena Sadrusham'- Without knowledge there is no growth. 'Knowledge' acts as a core competence for organizations. The advent of knowledge economy has compelled organizations to focus more on developing and retaining the knowledge. In India, many organizations are working on Knowledge Management; yet there are many smaller as well as big organisations, burdened with performance problems of employees where knowledge driven approaches are required to be implemented. The conceptual base of this paper discusses how 'The knowledge', flattening corner of the employees is rejuvenated by incorporating Competence Management in organizations. The paper, in simple terminologies, discusses the challenges faced by the organizations in applying competence management tools and techniques in the area of knowledge management. A competence management model has been described to facilitate knowledge management and roll out road map in organizations.*

### INTRODUCTION

A lot has been said about the term knowledge yet a great deal remains unquestioned. The whole life of an individual is too short to gain knowledge; similar is the situation of research on knowledge management where a good deal remains to be studied. Reminisce of the ancient cultures reveal that knowledge had been playing a major role for all, especially those in the king's army had to learn skills as well as understand the warfare techniques. Knowledge and an individual are inseparable. A man starts gaining knowledge from his early years and this process continues in his life time. Acquisition of knowledge has become a compulsion to survive in the competitive world. It is not only an individual who requires knowledge but the organizations are also in dearth of it. Knowledge referred as gyan are the lessons one learns from not only theoretical inputs but also from experience in real life. Knowledge in an organization is the collection of expertise, experience and information that individuals and workgroups use during the execution of their tasks (Vasconcelos, et.al., 2005). It is produced and stored by individual minds or implicitly encoded and documented in organizational processes, services and systems. In an economy where the only certainty is uncertain, the one

sure source of lasting competitive advantage is knowledge (Nonaka, 1991).

As 'knowledge' has turned to be the core competence, the demand for knowledgeable employees is imperative. The concept of organizational asset has varied tremendously with time and competition. The importance of intangible assets has amplified rapidly in knowledge society. The Knowledge Management (KM) approach views knowledge as the key asset of an organization among all others like land, infrastructure, brand etc. Knowledge in an organization is not just the experience, information or expertise embedded the individual conveying it. People for an organization are always an asset, but identifying right people is an incessant task. In organizations; Competence Management (CM) plays a major role in identifying the need for developing the right set of competencies in employees and also manage the required competent employees. Organizations business objectives are now focused on building a workforce of high calibre, commitment and performance. KM approach not only develops activities to build knowledge but also accentuates on managing it efficiently.

Talent magnets are able to manage their employees with attractive pay packages, fringe benefits and organizational culture. This poses a

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problem for organisations which are not in a position to offer them. Lack of resources becomes a major problem in attracting right people. In the event of attracting right people, retention becomes the crucial issue. On being able to retain employees, ensuring employee performance is the next concern. Numerous factors affect the employee performance and with the passage of time performance to match the growth expectation is yet another challenge for the management. Over period of time the management are left with no solution for employees deteriorating performance. Monotonous job is a common problem among employees. They don't have any challenge in the job. Such set of circumstances led to most of the employees losing their creativity and innovativeness and became dull, displaying less concentration at work. This is the flattening corner, affecting the quality and performance of the organization. There is a clear need to rejuvenate the employees, which will act as a key to the organization's performance and growth. Amongst various strategies adopted by organizations to rejuvenate their employees, the favoured tools and techniques to enhance the performance and rejuvenate their employees is 'Competence Management'. The foundation of this paper is studying the facet of CM in the gamut of Knowledge Management.

The paper attempts to provide a conceptual base for organizations to implement CM and rejuvenate knowledge in organizations. The problems of the organizations have been studied to develop and build a conceptual model where application of competence based techniques provides solution lead to a knowledge driven focus.

The objectives of the paper are:

- To discuss a conceptual base for implementation of CM to rejuvenate knowledge
- To elaborate the scope of techniques of CM at all application levels of KM

## **KNOWLEDGE MANAGEMENT AND ORGANIZATIONS**

Ramanand, (2001) expressed that the old paradigm of 'land, labour, capital' is replaced by knowledge and knowledge has become the marketable commodity. Thus, knowledge has been

referred as the complete utilization of information and data along with the people's skills, competencies, ideas, intuitions, commitments and motivations. KM is not only to gather information, proficiency or experience but to manage and develop the ones who bear these; the employees. Knowledge not only encompasses theory, but also includes the ability to express the knowledge gained and also enable to act it out in the daily routines. Managing and executing knowledge is equally important than to just acquiring knowledge in organizations.

Davenport and Prusak (1998) defined Knowledge as the fluid mix of framed experience, values, contextual information, expert insight and grounded intuition that provided an environment and framework for evaluating and incorporating new experiences and information. KM is no more an unknown word to organizations. KM is a managerial philosophy, which is perceivable in the practices of different organizations (Hannula, et.al., 2003). KM has been expressed in numerous ways. The concept of KM necessitates storage of information and knowledge, which is open to its employees for searching critical information, knowledge or the best practices in today's economy. KM approach lets the organization move ahead in fulfilling its goals. This approach believes as knowledge is the power.

## **KNOWLEDGE MANAGEMENT AND PERFORMANCE MANAGEMENT**

KM is the learned method for knowledge sharing and interaction. The employability factors have become an increasing concern for organizations. Employability factors which concern are knowledge based approach including competencies, experience and expertise. Thus, central elements of KM are individual learning, individual's competencies and plans for competency development of employees. Human Capital is an organization's intangible asset, and is the bundle of all the competencies and commitment of the people within an organization i.e., their skills, experience, potential and capacity. The human capital concept emphasizes on the people oriented capabilities needed for a successful business. It views people as critical contributors to the performance of the organization. Every organization invests on the development of the

employees. This investment is born by the organization with the motive that return on investment is the achievement of organizational performance. All organizations ensure that they gain an appropriate return on investment from their outlays of human capital which they have invested through salary, bonuses, benefits, trainings and many other ways.

Human Capital is the most critical source of competitive advantage but its valuation is most difficult. Organizations intending to gain positively, they attempt to translate the employee competencies to organizational performance. Competencies have been widely discussed in yesteryears, yet there appears to be little action orientation. With the growing acceptability of competency based techniques, CM has made a remarkable stand in today's organization. (Simon Beck, 2003). Practicing CM at a corporate level not only improves the competences of the employees, but also enhances the performance. As depicted in figure 1. CM has a pivotal role to play and it acts as a fulcrum to both Knowledge & Performance Management. Knowledge Management is related to Performance management with its close requirement of performance measurement in organizations.

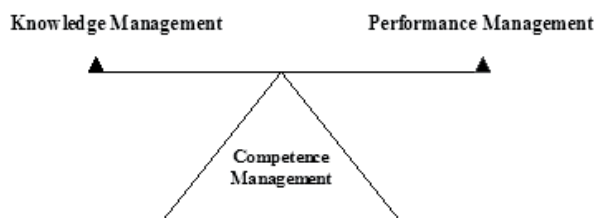


Figure 1: Pivotal Role of Competence Management

CM acts as a major ingredient in handling knowledge. It helps in identifying the desired competencies as well as the required level. It also focuses on managing, developing and retaining the requisite competencies. CM is based on managing the required knowledge, skill and the ability. It also provides significant support to performance management, which encompasses critical HR functions like Performance related pay, Learning and Development, Talent Management and monitoring the overall performance. The prevalent viewpoints on KM have been discussed earlier. Now, it is being attempted to elaborate on how human capital

has an integral role to play in building a knowledge based focus, and its linkages to concept of Competency.

Competency is a combination of motive, trait, skill, aspect of one's self-image or social role or a body of relevant knowledge. In other words, a competency is the characteristic of people and indicates the 'ways of behaving or thinking generalizing across situations and enduring for a reasonably long period of time (Boyatzis, 1982). The outcome of possessing a competency at a particular level is the 'behaviour', which is observable. Thus, competencies can be judged by the behaviour of an individual in specific situations.

Performance is the measure of a block of activity that one does over a period of time, be it for organizations or individuals. All aspect of performance management, such as organizations performance, developing skills and competencies, improving managerial effectiveness and employee management are interrelated. Performance management is related from initiating business plan to competencies integral for the individual's role and accountabilities. Building high performance organization includes performance planning, performance measurement and performance development. One such approach to performance is competency driven workforce. Figure 2. displays the relation between competency and performance. On having a right balance of knowledge, skill and attitude, the individual is expected to display a critical behaviour which ultimately affects the performance. The resultant of the behaviour is always performance by the individual possessing the needed set of competencies.

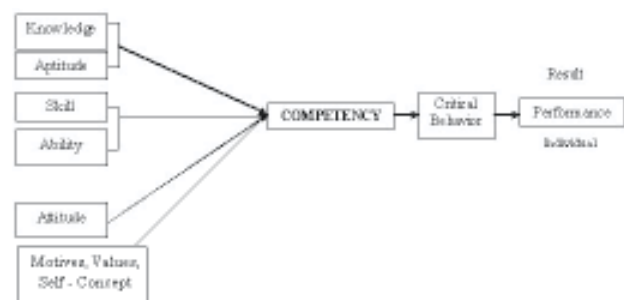


Figure 2: Concept of Competency

Competence has been well recognized as extremely important factor for the achievement of company goals, complimentary to, for instance, core business processes, customer relationships, financial issues and so on (Hamel, 94, Norton,96). The concept of performance acts as a base for Competence management. Performance is understood as achievement of the organization in relation with its set goals. It includes outcomes achieved or accomplished through contribution of individuals or teams to the organization's strategic goals. Thus, the implementation of CM leads to a performance based focus for the organization. There are numerous challenges involved in the application of CM in organizations. The global organizations do not confront any issues in implementing CM practices but the smaller organizations are flooded with numerous challenges which include acceptance of Competence Management techniques in Indian organizations; clarity on application of the technique; hesitation of professionals to incorporate documented and lengthy processes and lack of awareness among employees leading to hesitation

## COMPETENCE MANAGEMENT AND KNOWLEDGE MANAGEMENT

Earlier works of (Berio, Harzallah, 2005) explained that the knowledge and the competence of the employees in organizations are substantial success factors in the world-wide competition. The KAPPCom approach has been described herein to understand how CM contributes to knowledge enhancement and facilitates development in organizations. The KAPPCom approach emphasizes on the 5 core areas which are as Knowledge, Ability, Performance, Participation and Competencies. The KAPPCom approach is based on the benefits of the implementing competency management and its contribution to KM in organizations. It revitalizes knowledge creation; knowledge use, knowledge transfer and facilitates the development outcomes. The KAPPCom approach is discussed in detail here:

**Knowledge:** As discussed earlier, the concept of competency has visible characteristic like knowledge. An individual's knowledge is measurable and can be measured on the level of competencies one possesses. Knowledge is acquired

and is built through continuous learning. Knowledge employees help to gain more relevant information and adapt to changes. Stimulating knowledge and implementing it at workplace is a sure way for organizational development.

**Ability:** Through competence management, the ability of an employee can also be enhanced. Ability can be measured by using various tests based on the skill sets possessed. On performing a need assessment, using CM tools, the employee's ability can be enhanced through need based training. Ability augmentation leads to individual development contributing to the process and organizational development.

**Performance:** Performance for any organization is highly important; since the growth of the organization is dependent on it. CM focuses on both individuals as well as organizational performance. The objective of CM is to enhance performance by applying competence enhancement techniques. Competency mapping technique helps in identifying the required set of competencies based on key performance indicators; leading to improved performance of the knowledge workers as well as the performance of organization as a whole.

**Participation:** An employee participation in organizational functioning occurs only when one is involved and understands his need for participation. An individual employee participates when one is satisfied with the work done. Though satisfaction of an employee involves numerous factors yet satisfaction can be raised when an employee is competent for the position assigned. The employee ensures participation when one is able to perform in the organization. Performance of an employee can be enhanced by focusing on Competence Management, which in return ensures participation of employees.

**Competencies:** Distinguishing behaviours support in identifying the competencies of a performer and this acts as a way for others. CM simplifies the performance based focus, differentiating the high performer from the non performers among employees. Berio and Harzallah, (2005) have explained in detail that the usage of competencies is closely related to the possibility to enquire the acquired and required competen-



cies. Competency based system of recruitment, selection, training, appraisal, compensation designing are means to development of organization.

## LITERATURE REVIEW

A large territory has already been covered by researchers in relation with CM and Knowledge Management. Hong and Stahle, (2005) have reviewed and identified the distinctive perspectives on KM and the conceptual views on organizational competence. They developed the KCM approach that combines the efforts of both KM and CM to produce the overall capabilities of the whole organization for gaining efficiency in accordance with its pursued strategy. The integrated KCM Model suggests a way of considering both enabling and task-specific functions in an organization, avoiding some systemic biases.

Morgan, (1988) explains that the concept of competence encourages us to think on knowledge that is required for competent work performance. KM is an inevitable part of CM as the concept of competency itself speaks of knowledge, skill and abilities (KSA). Sandberg, (2000) identified and reviewed on three main rationalistic approaches to competence which are worker oriented, work oriented and multi-method oriented. The worker oriented approach has been represented as Knowledge, Skills, and Abilities (KSA) and the personal traits required for effective performance in work. The work oriented approach emphasizes on identifying the activities that are essential for accomplishing required tasks and then adapting them into personal attributes. The multi-method approach is a blend of both; worker oriented and work oriented approaches.

Berio and Harzallah, (2005) states that the knowledge techniques are generally useful for improving performance of CM processes (as any tool for supporting the enterprise activities). They have suggested usage of knowledge techniques for competence identification, Competence acquisition, Competence assessment and Competence usage. They have also stated that CM being the management of knowledge about competence; can also take advantage from knowledge engineering.

## Application of Competency Management to build Knowledge Management approach

Though, it has been observed from the literature that the relation between KM and CM yet the work on CM as a technique to contribute to KM is not internalized in many organizations. The contributions to relation between CM and KM have lead to conclusions where knowledge based techniques have been referred as a support to Competence Management. The other view points also reveal facts of knowledge being a part of the concept of competency. Thus, this paper focuses on CM as a technique to enhance the knowledge based approach as competency itself has knowledge as one of its characteristics. The technique ultimately supports the organization in knowledge acquisition and retention, knowledge flow and application, knowledge building and sharing at all levels of organization, process and individual. The three application levels of KM are: organizational level; process level and individual level.

The KM approaches applicable at different levels are as represented in the table below. CM is a way which involves numerous organizational functions like recruitment and selection, talent acquisition and retention, designing compensation and benefits, performance management, learning and development and employee involvement. The pre-identified set of competencies acts as a support structure in managing employee performance, attracting and retaining talents which in turn will add to the knowledge base. As CM is based on the notion of superior performance, it also contributes high to the career development of the employees. Technical competencies are also developed by applying CM is sure to enhance the performance at process level. Creativity and innovation which is also a goal for KM can be applied at the process level. Knowledge building and sharing is enhanced through training of required competencies. This is applicable at the individual level.

Numerous competency models have been developed in the recent past. Individuals have been concentrated in the previous work of (Harzallah, 2002, 2004). Group or Core Competence has not been approached in his work. The CRAI (Competency Resource Aspect Individual) model was developed which provided a formal

representation of individual competencies, both acquired and required. The enterprise model of Vernadat, (1996) provided the reason to require a competence and the definition of competence itself. Whenever new required competencies are unknown, a goal oriented modelling is envisioned (Yu, 1999). Goal oriented modelling focuses on the reasons of developing competence. In this research, a goal oriented vision has been used to develop a CM based model. The model has been designed for identifying the required competencies and the desired level of competencies.

Knowledge workers are high earners; especially those of high calibre and creating an environment to support high productivity will take considerable time and effort (Karen, 2005). A plan for competency improvement is very essential as identifying knowledge workers and retaining them has become an expensive task, rather developing knowledge workers is more accurate and involves desired level of performance. Developing knowledge workers leads to more committed employees along with growth of every individual, who is an asset to an organization.

Designing the CM based model has always been a challenging issue as there are multiple options available in choosing the techniques involved in the process. There are numerous models developed for performing competency management in an organization. There is no one specific form of conducting competency management. Thus the success or the failure of the model lies with the choice of technique. A CM based model helps in identifying the required competencies and measuring the desired level of the required competencies. The complete process is based on the organization's current as well as the future goals. The model supports emitting knowledge within the organization and fosters new knowledge. The model has been based on the suitability of the employers. Most organizations have a continuous work process and every individual employee has a leading role in the process. As a result, a lengthy process for applying competency based initiatives involving employees is not acceptable in organizations. Conversely, the organizations also do not appreciate a process which is expensive, time consuming and is not accurate.

Identifying the core competence of the organization is a complete technique by itself for structuring organizational strategy. Thus, it has not been included as a part of the model. The issues and preferences of the employers are considered before designing the model. The model focuses on directly interacting with the organization's person in command to understand the current and future needs of the organization. The organizational goals are thoroughly assessed before structuring the competency needs of the employees. The model also pays equal importance to the individuals in the organization. The complete initiative of CM is applied for the benefit of the organization and no organization can benefit until the employees realize the individual gain. A man can never be made to work until he has an interest to work. The preferences of the individuals in particular work reveals their interest. Most of the technical competencies can be inculcated and nourished in employees on behavioural aspects. If the right sets of behavioural competencies are focused in employees, it helps them to gain the technical competencies required for the particular assignment. An employee, who needs to develop technical competence of operating a CNC machine, also needs to possess learning ability, practice self management while performing an operation, quality consciousness and other traits.

The model is based on two dimensions that a performance is based on the required competencies and the required level of each competency. Key performance indicators are prepared for each position. The KPI's are prepared after a thorough study of profile of the work expectation along with industry expectation for a performer. A proficiency rating is prepared to have clarity on the specific requirements of the position. The proficiency description refers to specific items of the scales in order to represent the proficiency level acquired/ required. Figure 3: CM Model provides a complete insight on the contribution of CM in developing KM. The model is based on measuring the gap between required and current levels of competence. Identifying the competency gaps reveals the scope for the improvement. One of the means through which competencies can be acquired is through learning. Learning can be planned and the gaps can be filled. The model provides planning to individual development.

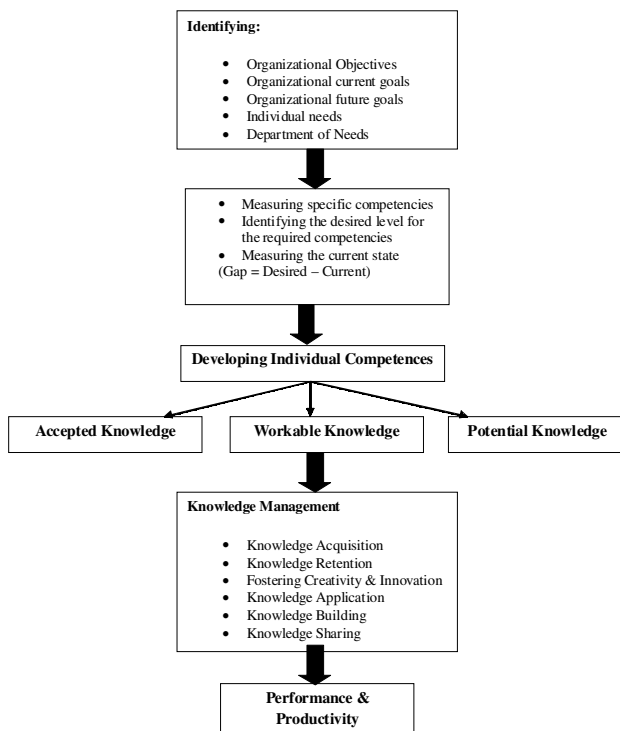


Figure 3: Competence Management Model

Actions are initiated by knowledgeable people thus; knowledge needs to be enhanced for employees in organizations. Adequate opportunity to develop engages employees to achieve excellence. It is advocated that that if one is provided an opportunity to 'act rightly' i.e. if one is subjected to proper training, he will achieve excellence (Mallikarjunan, 2005). CM system aids the organizations to decide and plan the learning for the employees, fosters the platform of Competency Development by encouraging creativity and innovation, encourages sharing of data and information and identifies and retains the talents for development. Competence Management thus focuses to enhance his performance. It supports the organizations to identify right people with required set of competencies. Competency management is a crucial technique enhancing the KM in organization.

## CONCLUSION

Employees can be a part of the organization only if they are 'assured growth' and growth can be as aforesaid based as 'Performance' of the individual in an organization. Human Resources Management adds value to the organization when it helps employees and organizations to improve their level of performance. The compe-

tency management ensures (good job - person matches), predict superior job performance and satisfaction—without race, age, gender, culture, or credential biases. The competency approach is fairer, freer, and more effective. The paper strongly focuses on the implementation of competence management. The tool of competency management is convincing but has a lengthy procedure in identifying the required competencies. This technique is successful only if it is implemented well. The contributions of McClelland, Boyatzis, Spencer & Spencer and many others have supported organizations to administer the technique. CM is a gem of techniques as it not only focuses on the needs of the organization but also provides a base to many other approaches and functions of the organization.

KM is one of the recent approaches build to focus on the needs and performance of the organization. It is focused to adopt continuous improvement through knowledge. KM embodies several distinct ideas that lead to continuous cycle of creativity and innovation. With frequent changes surrounding our life, creativity and innovation have become a part of survival strategy of organizations. The study is the guiding beacon to the small manufacturing units. Thus, a knowledge based approach is inevitable and competency management is a technique to support it. Individual actions lead to overall enterprise performance thus the employees have been considered to be the foundation for applying KM approach and competency management helps the organization to build, develop, acquire and retain knowledge for the organizations.

## References

- Beck, S. (2003). Skill and Competence Management as a base of an integrated personnel development (IPD) A project in the Putzmeister inc/Germany, *Journal of universal Computer Sciences*, 9 (12), 1381-1387.
- Boyatzis, R. (1982). *The Competent Manager, A Model for Effective Performance*- John Wiley, New York, 21.
- Davenport T. and Prusak L. (1998). *Working Knowledge*, Harvard Business School Press: Boston, MA.
- Hamel, G. and Prahalad, C.K. (1994). *Competing for the Future*. Harvard Business School Press, Boston.
- Hannula, M., Kukko, M., and Okkonen, J. (2003). The Fourth Perspective- Knowledge Management in Human Resources Context, *Business Excellence '03*.

- Harzallah, M. and Vernadat, F. (2002). IT based Competency Modelling and Management: from Theory to Practice in Enterprise Engineering and Operations, *In Computers in Industry*, 48, 157-179.
- Harzallah, M. and Berio, G. (2004). Competency Modelling and Management: A case study, *In Proceedings of the 6<sup>th</sup> International Conference on Enterprise Information System. (ICEIS'04)*, University of Portucalense, Porto, April 13-16, 350-358.
- Harzallah, M. and Berio, G. (2005). Knowledge Management for Competence Management, *Journal of Universal Knowledge Management*, 1, pp. 21-28.
- Hong, J. and Stahle, P. (2005). The Co-evolution of Knowledge and Competence Management, *International Journal of Management Concepts & Philosophy*, 1 (2), 129-145.
- Mallikarjunan, K. (2005). Training & Development Knowledge Society, *HRM Review*, ICFAI University Press, 5 (10), 61-68.
- Morgan, G. (1988). *Riding the Waves of Change: Developing Managerial Competences for a Turbulent World*, San Francisco: Jossey-Bass.
- Nonaka, I. (1991). The Knowledge Creating Company, *Harvard Business Review*, 69, November- December, 96-104.
- Norton, D.P. and Kaplan, R.S. (1996). *The Balance Scorecard: Translating Strategy Into Action*, Harvard Business School Press, 1996.
- Ram Anand, N. V. (2001). Knowledge Management, *Udyog Pragati*, NITIE, 25 (3) July, - Sep, 66- 70.
- Sandberg, J. (2000). Understanding Human Competence at Work: An Interpretative Approach, *Academy of Management Journal*, 43 (1), 9-25.
- Unwin, K. (2005). Recruiting Knowledge Workers, *HRM Review*, ICFAI University Press, 5(10), 9-13.
- Vernadat, F.B. (1996). *Enterprise Modelling and Integration- Principles and Application*, Chapman & Hall.
- Vasconcelos, J., Seixas, P. & Lemos, P. (2005). Knowledge Management in Non-Governmental Organizations- A Partnership for the Future, *Proceedings of the 7<sup>th</sup> International Conference on Enterprise Information systems (ICEIS 2005)*, Miami, USA, May 24-28, ISBN-972-8865-19-8.
- Yu, E. (1999). Strategic modelling for Enterprise Integration. *In proceedings of the 14<sup>th</sup> world congress of International Federation of automatic control (IFAS'99)*, Beijing, China, 127-132, Pergamon Elsevier Sciences.

**Table 1: Application of Competency Management to build Knowledge Management approach**

S. No.	Application levels of Knowledge Management	Knowledge Management approaches	Competence Management usage
1	Organizational Level	<ul style="list-style-type: none"> <li>· Knowledge Acquisition</li> <li>· Knowledge Retention</li> <li>· Creativity &amp; Innovation</li> </ul>	Competency based recruitment and selection Competence development Career development
2	Process Level	<ul style="list-style-type: none"> <li>· Knowledge Flow</li> <li>· Knowledge application</li> </ul>	Developing technical competencies Application of creativity and innovations
3	Individual Level	<ul style="list-style-type: none"> <li>· Knowledge building</li> <li>· Knowledge sharing</li> </ul>	Training on required competencies Learning Plan

## CHANCE FAVOURS ONLY THE PREPARED MIND : A CASE ON MAHALAKSHMI FOODS PVT. LTD\*

Vikas Gupta, CMD, Mahalakshmi Foods Pvt. Ltd., Indore was sitting in his office and pondering on the possible growth strategies of his company. In the last year, the company witnessed a number of challenges due to decrease in the exports of value added soyabean products, unfavorable taxation policies of the state government, inadequate water supply, and insufficient infrastructure. Due to these challenges, Gupta observed that the company's profit was decreasing substantially and was becoming difficult to sustain.

Looking at the last decade, Gupta remembered the journey that he had travelled after completing MBA in 1992 from a reputed B-school in central India. He had started his career as management trainee with Suruchi Soya Pvt. Ltd, a giant in value added soyabean product manufacturing and processing company. This job exposed him to various soyabean product manufacturing and trading companies for more than five years, where he learnt the tricks of the trade. His excellence was quickly recognized not only by his company, but also by the competitors and soon he started getting better job offers with lucrative salary propositions. Gupta had other plans as he always dreamt of being an entrepreneur. Keeping his ambitions in mind, he left the job and established his own manufacturing unit; producing high protein soyabean products with the name "Mahalakshmi Foods Pvt. Ltd." in the year 1996.

### Beginning of Mahalakshmi Pvt. Ltd.

After starting the company in 1996, Gupta slowly realized that the road ahead would not be easy. The raw material required for manufacturing of soyabean nuggets and chunks was soyabean grit. Soyabean grit was purchased through companies, which had large solvent extraction plants and were very few in the whole of central India. The price for the raw material was around Rs.27 per kg, dictated by the com-

panies. The final products i.e. soya nuggets and soya chunks manufactured by Mahalakshmi Foods, were supplied to whole sellers in the open market. In spite of the problems in the price and procurement of the raw material, Gupta was able to establish himself in the market. His quality and timely delivery was welcomed by dealers and distributors and a centralized decision making system of business operations provided the extra margin, which enabled him to offer competitive rates. His experience and inherent excellence made him an alternative to the big players of the market, who were his employers and today his competitors. The growing demand of the products, and problems in the availability, quality and timely supply of raw material started affecting his business and finally by the year 2007, he decided to go for backward integration and set up his own solvent extraction plant to cater the raw material needs of the existing business. This would also provide him with an opportunity to enter into the other segments of the soyabean processing business like soyabean flour, soyabean oil, soyabean grit and DOC (i.e. De-Oiled Cake). The required financial assistance was provided by Bank of India and his sanctioned exposure by the bank was Rs.10 crores. This backward integration enabled him to decrease his daily manufacturing cost by Rs.20,000 (approximately). Now, his firm was not dependent on the raw material supplied from other manufacturers.

A year after the backward integration, he started facing problem due to unfavourable government policies and poor infrastructure. One serious problem was also of water shortage, as soyabean processing and solvent extraction plants had a major requirement of clean soft water that too in large quantity, which if not solved would lead to stoppage in the production process leading to high cost. To overcome this problem, Gupta started buying water from

\* This case was developed by Pragya Keshari, Shubhangi Jore, Nishant Joshi, Yogeshwari Phatak, (Prestige Institute of Management and Research, Indore), and Manoj Raghuvanshi (Acropolis Institute of Management Studies and Research, Indore) during Twenty-Second National Case Writing Workshop at Prestige Institute of Management and Research, Indore in Collaboration with Association of Indian Management Schools (AIMS), New Delhi on January 2-4, 2010.

local suppliers, but this caused an additional expenditure of Rs.20,000 per day for a period of three months of summer namely (April, May and June). The taxation policies of the state government were also very unfavourable, money tax of 2.2 percent and VAT of 12.4 percent was applicable, due to which the cost of production increased and profit margin squeezed to a large extent. This was higher as compared to neighbouring states due to which most of the raw material (soyabean) being started processed by processing units in neighbouring states. This outflow of raw material led to two problems. Firstly, the supply of soyabean seeds to local units was reduced and secondly, cost of soyabean seeds also increased. Gupta knew that without tapping the branded retail market,

where products reached the final consumer and producers had high profit margins the capacity utilization, future growth of the company was not possible. His aim was to increase the turnover from Rs.100 crores to Rs.500 crores in coming three years. However, he wondered whether he could face the big established players in the central region, like Suruchi Soya Pvt.Ltd.

#### Questions:

1. Do the SWOT analysis of the case.
2. Comment, whether Gupta should enter the branded market or not?
3. Suggest the strategies that Gupta should adopt to establish his brand in the market.

## FILL AND FLY\*

The introduction of a new high end automated setup by the Petroleum Corporations of India at their authorized fuel station firms was creating problems in these firms. The firm owners believed that the new system was good for the customers but it was not easy for them to accept it due to many problems. Similar incident took place at BAPS Corporation, an automated setup made the owners of authorized fuel station firms reluctant to adapt new systems. Initially, the system posed numerous problems for the firms because of frequent failure of network, software and hardware/server. More over the workers were not trained for the new system. Although, the fuel station firms were provided with annual maintenance contract of 'K&T Limited', but that support was not enough to run the new automated fuel system consistently without any error. As long as the executives of K&T Limited were at the fuel station, they were able to get up-to-date status of sales, but this was not possible when they were out of town or away from fuel station for some or other reasons. However, the firms' owners agreed that the new system could definitely increase cus-

tomers satisfaction because whenever the system was shown the customer, they felt that it was more transparent.

#### BAPS Corporation Limited

The 1860s was the decade of vast industrial development. A lot of petroleum refineries came into the scenario. In this decade an important player of the south Asian market "Karma Oil Company" which was an active producer, refiner and distributor of petroleum products, particularly in Indian and Burmese markets came into existence. In 1928, South Asiatic Petroleum (India) joined hands with Karma Oil Company. This alliance led to the formation of Karma-Shell Oil Storage and Distribution Company of India Limited. On 24<sup>th</sup> January 1976, the Karma Shell Group of Companies was taken over by the Government of India to form BAPS Refineries Limited. On 1<sup>st</sup> August 1977, it was renamed BAPS Corporation Limited. It was also the first refinery to process newly found indigenous crude (Bombay High), in the country.

Due to increasing globalization in the late 1990s

\*The case was developed by Suyash Jhavar, Dr. Alok Bansal, Bhavna Sharma, Bharti Motwani, (Prestige Institute of Management and Research, Indore) and Pranjal Muley, (MET Institute of Management, Mumbai) during Twenty Second National Case Writing Workshop at Prestige Institute of Management and Research, Indore in Collaboration with Association of Indian Management Schools (AIMS), New Delhi on January 2-4, 2010.

and in the starting of twenty first century, the production-based success philosophy of marketers had been changed to a customer-oriented philosophy. BAPS corporation had taken benefit of this situation well in time and had started taking radical steps to keep itself attuned to the changing times, realizing that the future belongs to those who listen and adapt to their customers. The company had always been on the forefront amongst other oil companies for harnessing technology initiatives and maximizing efficiency for achieving customer satisfaction. BAPS Corporation wanted to provide value-added services, ensure better customer satisfaction and enhanced shareholder value. Thus, the company was looking for such a system, which would facilitate access to real-time accurate information on key performance indicators at all BAPS locations enabling the management to take strategic and business decisions. To convert this dream into reality, BAPS joined hand with K&T Limited for introducing new real time hi-tech setup on fuel stations.

#### **K&T Limited**

K&T Limited was the leading supplier of petroleum dispensing pumps and systems in India. Its product range included standard duty, heavy duty, single/dual nozzle, mechanical/electronic display dispensing pumps and multi product dispensing units for dispensing up to five grades of fuel. Its solutions were modular, scalable and could be upgraded to suit various forecourt topologies to meet customer requirements. When contacted by BAPS Corporation, K&T Limited first understood their requirements thoroughly and then collaborated with Tronvenco, New Zealand to develop a customized automated real time information system, which can fulfill these advanced requirements.

#### **Tronvenco**

Tronvenco, New Zealand was operating globally with customers in 23 countries. The company's growing diversity was reflected in each of the key areas of its operations, which includes providing forecourt solutions for the international retail oil industry; payment technology, and mobile and wireless technology. To cater the requirements of BAPS and K&T Venture Company, an online data warehouse based project

named "Real Time Information System" was designed. The software development project cost to BAPS was Rs. 20 Lacs approximately, having features like tracking of customer-receivables, monitoring credit-management, inventory management, besides easing the operations in a large number of areas. The implementation and training costs were not included in it.

#### **Real Time Information System (RTIS)**

The RTIS was developed using DotNet and embedded programming techniques. Back-end support was provided by SQL server. BAPS planned to provide each selected fuel station with one integrated system, well connected to its head office via VSAT wireless network media. Cat-5 and Cat-16 pair (twisted pair) cables were used to develop entire communication network. The system in turn, was connected to every fuel tank and pump (machine) at station. Every machine (pump) had one sensor/reader and one card reader attached with it. Each delivery salesman (DSM) was provided a watch (Tag), where in DSM's name and other information was embedded. Before filling the fuel in the customers' vehicle, DSM had to show his tag to the sensor, so as to activate and operate the nozzle/pump. Any DSM can operate any pump with cash accountability for individual transaction. The customer can also use the payment facility through their credit/debit cards. The entire system could be controlled by pump-owner as he/she was privileged to turn the system ON or OFF.

#### **Operating with RTIS**

After receiving a high-end real-time system, the next job for BAPS was to select fuel-stations across the country. BAPS selected 180 such stations on the basis of their higher sales turnover. The complete deployment of the real time information system on these stations took two years. BAPS started to sell petrol, diesel and oil products at all these selected stations using new RTIS. The main motive of the company behind the deployment of RTIS at their maximum retail outlets was to track customers-receivables, assuring quality and enhancing customer satisfaction for all of its products. RTIS was meant to improve retail station operational efficiency and asset utilization. This system also provided the

ability to study demand of various products and loads at various outlets to take tactical and strategic marketing decisions regarding petroleum retailing. RTIS offered greater visibility of the outlet's operations and help to monitor / prevent fraudulent practices.

On the first time receipt of new delivery from BAPS, fuel station firms had to enter initial quantitative data manually. Afterward every transaction held on the station was recorded immediately in the system and were sent to the head office. The system was able to generate day-to-day sales report, DSM based report, monthly report, reports for specific duration and fuel reconciliation –meter and tank summary reports. Whenever the system was connected to tank it detected the level for fuel reordering and automatically generated an e-mail which was sent to head-office directly. But initially its current use was limited to manage sales of petrol and diesel products only. To look after technical aspects and annual maintenance, the fuel station firms were provided with visiting technicians of 'K&T Limited'. The support of visiting technicians was not enough to run the new automated fuel system consistently without any error. As long as the technicians of K&T Limited were present at the fuel stations, they were able to run the new system smoothly and ensure up-to-date reports, but this was not possible when they were out of town or away from fuel station for some or other rea-

sons. The main reason for this problem was less qualified low salaried employees at fuel stations who were not professionally trained with the new system.

### Step Ahead

BAPS Corporation was looking forward to establish this new system on all their outlets but the problems faced by existing 180 retail outlets with this new system was putting a big question mark on this expansion plan. The company also wanted to upgrade with new version of RTIS, which would definitely offer some new feature like on-line purchase-order placement and customer transaction with loyalty cards. It would also offer value-added services like car-wash, coolant top-up, etc. at the retail outlets.

### Question

1. Critically review the real time information system implemented by BAPS Corporation at their fuel stations in collaboration with K&T Limited?
2. Suggest strategies to overcome the basic problems which were being faced by BAPS fuel station firms in context with newly implemented RTIS?
3. Was it possible for BAPS Corporation to execute its upgradation and expansion plans? Give reasons to support your answer.

## TIGHT WIRE WALKING\*

Peeyush, the executive Director of Ratan Wires Limited (RWL) and his team had to make a presentation, before the board of Director, on how to double profitability of the company within next three years. Considering the spectacular performance delivered by the company, in a recessionary market, may make the goal look, not too difficult, but a closer look at the market condition and changing business environment in the country it sounded like a very ambitious plan.

In the recession hit year 2008-09 when the global economy was facing a slowdown and automobile sales were plummeting, with the world's largest automobile companies like GM filing for chapter 11 in the US. The tyre sales faced a huge dip due to dominos effect and further causing a downturn to bead wire sales world over. In India, when the market leader, with almost 45 percent market share, had to shut down its plants for three months as the inventories were piling up. The company with a decent 35 percent mar-

\* This case was developed by Sachin Mittal, Nitin Tanted (Prestige Institute of Management and Research, Indore) and Ashish Khandelwal (IMI, Indore) during Twenty Second National Case Writing Workshop at Prestige Institute of Management and Research, Indore in Collaboration with Association of Indian Management School (AIMS), New Delhi on January 2-4 2010.



ket share never had to halt its operation even for a single day. In fact what could be considered as a very short time, for an industrial manufacturer of wire, i.e. within a month the company was able to divert its idle resources in to other product lines which otherwise was a tactical decision, proved to be a strategic one for the company, as the company had been able to exploit an opportunity which had never looked so obvious earlier.

The company not only entered in to a new product line but also secured long term contract with a leading customer in US, thus foraying into a new market with a new product. Ratan Wires Limited (RWL) was one of the leading manufacturer of High Carbon Steel Wire in India, specializing in Automotive Tyre Bead Wire, high quality Spring and Rope Wires are other speciality products of the company. RWL had most modern factory at Pithampur, which was 25 Km from Indore, a prominent industrial city in Central India. The quest for quality, excellence and progress driven by the total dedication of a competent and professional team was the hallmark of RWL. With its “**state of art**” plant RWL was equipped to produce high value steel wires with precise product characteristics.

In a short span of time RWL had achieved leadership position in Tyre Bead Wire business in India having a global scale of operation and to take the tradition of quality and excellence further, RWL had formed a 100 percent subsidiary company Ratan Thai Wire Co. Ltd. (RTWL) and started an ultra modern facility to produce Automotive Tyre Bead Wire in Thailand. This was a true step towards globalization efforts of RWL. RWL was an ISO TS 16949 (2002) certified company for its entire range of automotive tyre bead wires. The company initiated its operations in 1991 with a wire drawing unit to manufacture different types of pre-stressed concrete wires and strands. The plant commenced its commercial operation in March 1991. In 1994, the Management decided to expand its product portfolio by manufacturing tyre bead wires. The company had a technical collaboration and joint venture agreement with Gustav Wolf, Seil-Und Drahtwerke GmbH & Co. of Germany, which was terminated in the first week of October 2003.

The company had a broad vision to become market leader of tyre bead wire in the country by supplying product for total satisfaction of customers, by meeting their requirements at competitive prices. The company mainly focused upon developing culture of continual improvement in technology, quality, customer service and cost with ensuring safe working conditions to eliminate potential risks to employees.

### **The Product Mix**

Bead Wire is a high carbon bronze coated steel wire used in all tyres. The main function of bead wire is to hold the tyre on the rim and to resist the action of the inflated pressure, which constantly tries to force it off. The bead is the crucial link through which the vehicle load is transferred from rim to the tyre. It significantly affects the safety, strength, and the durability of tyres. The company manufactured almost all variety of bead wires (Exhibit: 1)

Black wire is the main product of the company with the highest profit margin. It was a recently forayed segment for the company in response to recession hit decline in demand for the main product as automobiles sales went down drastically. RWL started to produce galvanized wire, in response to utilize the idle capacity due to lack of demand for the main product. RWL was gradually phasing out from the segment of PC wire, as the major customers for this product were governmental organizations and with lot of beauracatic hurdles this was not a very profitable product line.

### **Production and Operation**

The company had secured ISO TS 16949 (2002) certification for its entire range of automotive tyre bead wires. The technology employed was second best in the world. The company had secured approvals from almost all the Tyre companies in India (both national and international). In fact the company was in the list, of the preferred suppliers, by top five players in the country. In a short span of time RWL had positioned itself as one of the dominant players in tyre bead wire business in India, having a global scale of operation. To take the tradition of quality and excellence further, RWL formed a 100 percent subsidiary company Ratan Thai Wire Co. Ltd. (RTWL) and started an ultra modern facility to

produce automotive tyre bead wire in Thailand. This was a true step towards globalization efforts of RWL. The entire machine range was indigenously produced by a captive manufacturing unit of RWL itself which allowed the company to source the machines at almost half of their import cost and also saved time.

The company also shifted to a dedicated power supply for uninterrupted operation by investing Rs.1crore, which the company was able to recover in just 15 months on account of smoother operations and efficient production. This was because the company operated 24/7, thus uninterrupted power supply was very crucial else it increased as wastage. Moreover diesel cost for generators was also very high. The current capacity in Indian plant was 30,000 MT / year. Capacity utilization in 2008-09 was almost 85 percent. Capacity utilization in 2008-09 was almost 50 percent. The company believes that the Thai plant may offer great economies of scale due to cost structure and it was much better equipped with all the facilities and government support (Exhibit 2).

### **Human Resources**

The Company had been able to operate efficiently because of a culture of professionalism, integrity and continuous improvement in all functions and areas to ensure efficient utilization of the company's resources for sustainable and profitable growth. Every year measures for training, development, safety of the employees and environmental awareness received top priority from the management. The company had 230 workers and staff members. The leadership team at RWL was highly dedicated and committed towards the company's mission and vision. The company ensured utmost safety measures for their workers by training them. To address the issue of pollution and health hazard for the employees, the company switched to more environmental friendly though more expensive technology. Though the company had so far managed its workers well, but the unionized labour market in Pithampur was reason of concern for the company.

### **Market Competitions**

The demand for tyre bead wire was derived demand. The tyre industry had been growing

at an average of around 9 percent per annum. As a result the demand for tyre bead wire had increased from around 3,500 tons per month in 2001 to current levels of around 4,500 tons per month. Five years ago the market for tyre bead wire had eight players. Which was reduced to only three players. Apart from Ratan Global Wires Ltd, TISCO and Aarti Steel were the only players in the market. Aarti Steel was an unlisted company and for TISCO tyre bead wire forms a miniscule part of its revenue. Further, both these companies concentrated on manufacturing core steel products and had no plans for expanding their tyre bead wire capacity in the near term. Ratan had 35 percent market share currently and the hope to acquire additional 3 percent of the pie every year in its quest to become the market leader (Exhibit: 3).

### **Customers' Expectation**

Though customers differ in what they expect, but quality was a major issue. As the tyre bread wire though very insignificant in terms of cost, was very crucial from safety point of view. Thus, quality can not be compromised in the long run. Chinese players had earlier tried to dump their product in India to disrupt the Indian market, but the market soon got stabilized as Chinese quality was not up to the mark. However, this raised customer expectations and thus, customers started demanding high quality at Chinese prices.

During the financial year 2008-09, company had witnessed good demand and profitability in first half as compared to same period in past years. However, due to global economic slowdown the same could not be sustained in second half. The year ended with net sales of Rs. 145 crores against Rs. 106 crores in previous year and recorded a growth of 37 percent, the profit after tax of Rs. 5.72 crores as against Rs. 1.02 crores in previous year and recorded a growth of 462 percent. Company was also paying 10 percent dividend to their shareholders since last 3 years (Exhibit 4). During the financial year 2008-09 the company's capital structure ratio was 0.72 as compared to previous year 0.86. The current ratio was recorded 1.43 as compared to previous year 1.20 (Exhibit 5). In the cost structure, raw material cost was the prime cost which was approximate 60 percent

of the total sales and delta (difference of sales and raw material) was 40 percent. During the financial year 2008-09 delta was highly fluctuating due to high volatility in steel prices and affected the profit margin, inventory management and working capital management of the company.

At the time of economic slowdown, as automobile sector was mainly affected, RWL was also faced liquidity problem and their major fund was blocked in form of debtors. Their normal debtor's turnover ratio was 3 months but during that time it was extended up to 6 month. Peeyush and his team decided to expand the business and started the production of black wire as there was huge demand which helped the company during recession as the product line had just cash turnover. Tyre Bead wire was the flagship and high profit margin product of the company. During the financial year 2008-09 installed capacity of bead wire was 30,000 Metric Ton (MT) per year whereas, turnover of the bead wire was 85 percent of the installed capacity. The company wanted to extended the capacity up to 40,000 MT per annum, which would further require capital investment of Rs. 10 crores.

Ratan Thai Wire Co. Ltd., Thailand (RTWL), the wholly owned subsidiary of the company

had started commercial production of first phase from June 2008. However, business became very slow due to global economic slowdown and RTWL being new in the market had suffered huge losses. RTWL achieved sales volume of 2791 MT, net sales recorded to Rs. 14.43 crores and company booked net loss of Rs. 6.13 crores. Peeyush was concerned about, how to get further growth of 30 to 35 percent in next year, as a Chinese competitor was also entering in the bead wire market and the steel price were also uncertain.

#### Questions:

1. What strategies do you suggest to RWL to double the profit in next three years?
2. Considering the company can follow any one of the two strategies be adopted:
  - a) Growing Market Share in Black wire
  - b) Foraying into Foreign Market with in the Bead wire segment. Which of the two would you suggest?
3. Would you suggest that the company move more of its production to its Thai Plant in place of expanding capacity in India?
4. Analyze the firm's position in the industry using Porters five force Model.
5. Analyze the short term and long term solvency position of RWL?

**Exhibit: 1**

Following sizes of bead wire were manufactured by RWL
0.96 MM
1.295 MM
1.60 MM
1.65 MM
1.83 MM
2.00 MM
2.20 MM
2.40 MM

**Exhibit: 2 (Rs. in crores)**

Consolidated Profit and Loss Account		
Particulars	Financial Year	
	2008-09	2007-08
Sales	144.98	106.06
Other Income	0.17	0.16
Total Income	145.15	106.22
Profit Before Tax	8.80	1.83
Provision For Tax	Nil	Nil
a. Current	2.97	0.20
b. Deferred	0.09	0.41
c. Fringe benefit tax	0.02	0.20
Profit After Tax	5.72	1.02

**Exhibit 3 Comparison between Thai and India Plant**

<b>Facility</b>	<b>Indian</b>	<b>Thailand</b>
Customer base	Presence of MNC in the market	A base of big customers.
Labor market	Highly unfavorable	Favorable
Market leadership	Exists (2 <sup>nd</sup> highest share)	Not started selling to Thai customers
Cost of Production	Higher	Lower
Purpose behind setting up	Serve domestic market	To import to India
Transportation cost	Indore to Bangalore - Rs 2500 MT	Thailand to Bangalore – Rs 1750 MT

**Exhibit 4 Competitive landscape**

<b>Variable</b>	<b>RWL</b>	<b>Tata steel</b>	<b>Aarti Steels</b>
Product mix	2 products	Various	Various
Share	35 percent	45 percent	15 percent
Location	Indore/Thai	Mumbai / Bangalore	Ludhiana
Position in the value chain	Manufacture and Supply to tyre companies	Supplies to both RWL and tyre companies	Manufacture and Supply to tyre companies
Customers segment served	Mostly big players looking for quality	Mostly big players looking for quality	Mostly small cycle two wheeler tyre manufacturers near by Ludhiana
Quality perception of customers	Superior and ready to pay premium	Not as good as RWL paying average price	Not good, looking for cheaper options.

**Exhibit: 5 (Rs. in crores)**  
**Consolidated Balance Sheet**

Particulars	Financial Year	
	31-Mar-09	31-Mar-08
<b>I. Sources of Funds</b>		
(1) Shareholder's Funds		
(a) Share Capital	04.35	04.35
(b) Reserve & Surplus	38.58	33.36
(2) Loan Funds		
(a) Secured Loans	19.2	19.33
(b) Unsecured Loans	03.68	04.74
(3) Deferred Tax Liability	08.36	08.26
<b>Total</b>	<b>74.17</b>	<b>70.04</b>
<b>II. Application of Funds</b>		
(1) Fixed Assets		
(a) Gross Block	61.26	59.59
(b) Less: Accumulated Depreciation	17.39	14.59
(c) Net Block	43.87	45.00
(d) Capital Work in Progress	0.22	01.38
(2) Investment	16.92	14.56
(3) Current Assets & Loans		
(a) Inventories	6.23	7.05
(b) Sundery Debtors	26.66	22.7
(c) Cash and Bank Balances	5.62	0.71
(e) Loans	05.20	04.95
Total Current Assets	43.71	35.41
Less : Current Liabilities & Provisions		
(a) Liabilities	03.40	02.47
(b) Provisions	0.91	0.51
(c) Working Capital Loans	26.24	26.33
Net Current Assets	13.16	06.10
(4) Miscellaneous Expenditures	Nil	03.00
<b>Total</b>	<b>74.17</b>	<b>70.04</b>

**BUSINESS AND INDUSTRIAL LAWS by Renu Arora (2012). International Book House Pvt. Ltd., New Delhi: pp 386, Price Rs. 255/-**

Industrial revolution and development in the fields of communication, transportation, automation have influenced life in a big way. Organisations have grown in size; some of them beyond imagination. To run any business or industrial undertaking, government has made certain acts which help them as a tool which contains do's and don'ts. Understanding of laws which governs the business is of paramount importance. Therefore, Business Laws and Industrial Laws are taught to the students to understand its importance in an organisation. The book has been divided into four parts. Business Laws are covered from part I-III and Industrial Laws are covered in part IV.

Chapter I on The Indian Contract Act, 1872 highlights the definition of contract, elements of a valid contract, types of contracts. Chapter II Offer and Acceptance throws light on meaning, classification, essentials of valid offer. This chapter also highlights the essentials of valid acceptance, lapse and revocation of offer, communication of offer, acceptance and revocation and communication of revocation of offer and acceptance. Chapter III Consideration and takes about the definition of consideration, legal rules regarding valid consideration, stranger to contract and no consideration-no contract. Chapter IV Capacity to Contract covers minor's agreement, nature of minor's agreement and agreement with a person of unsound mind. Chapter V Free Consent throws light on meaning of consent, free consent, coercion and undue influence. The chapter also highlights the rules and judgments of the courts regarding undue influence. This chapter also throws light on difference between coercion and undue influence, meaning of misrepresentation, essentials and consequences of misrepresentation. It also highlights meaning, essentials, effect of fraud.

Chapter VI legality of object and consideration highlights conditions of unlawful agreements, difference between unlawful and illegal agreements, effects of illegal agreements and the doctrine of public policy. Chapter VII throws

light on Agreements in restraint of trade, marriage, legal proceedings and covers void agreements. This chapter also discusses sections on uncertain agreements, agreements by way of wager, agreements contingent on impossible events, reciprocal promises to do things legal and also other illegal things. It also highlights meaning of restitution with examples. Chapter VIII contingent contracts highlights meaning, features, rules of contingent contracts and difference between a contingent contract and a wagering agreement. Chapter IX Quasi Contracts throws light on meaning, types of quasi contracts with examples. Chapter X Performance of Contract highlights meaning of promisor, legal representatives, agent, third persons, joint promisors. It also ponders light on rules regarding obligations of joint promisors, offer to perform, essentials of a valid tender, effect of refusal of party to perform promise wholly, time and place of performance, performance of reciprocal promises, appropriation of payments, contracts which need not be performed, assignments of contracts.

Chapter XI Discharge of contracts highlights meaning of discharge, modes of discharge: by performance, by agreement, by impossibility, by lapse of time, by operation of law, by breach of contract with examples. Chapter XII remedies for breach of contract throws light on rescission of the contract, suit for damages with kinds, suit upon quantum meruit, suit for specific performance of the contract, suit for specific performance of the contract, suit for an injunction with examples. Chapter XIII contracts of indemnity and guarantee highlights meaning of contracts of indemnity and also on the sections regarding rights of indemnity holder when sued, rights of the Indemnifier, commencement and extent of liability of indemnifier, contracts of guarantee, essential features of contract of guarantee, difference between a contract of indemnity and a contract of guarantee, kinds of guarantee. This chapter also highlights the nature and extent of surety's liability, rights of a surety, discharge of surety from liability. Chapter XIV Agency Contracts covers definitions of

agent and principal, methods of creation of agency. This chapter also highlights meaning of sub agent and substituted agent, relation between the agent, the sub-agent and the principal, rights and duties of agent and principal, rights and duties of the principal against the agent, relations of principal, agent and third parties, personal liability of agent, revocation of agency, effect of termination of agency.

Chapter XV contracts of bailment and pledge highlights meaning of bailment, essential features of a contract of bailment, difference between sale and bailment, kinds of bailment, duties and right of bailee and bailor, definition, rights of finder of lost goods, right of lien, difference between particular lien and general lien, termination of bailment, rights and duties of pledger and pledgee, difference between bailment and pledge. Chapter XVI The Sale of Goods Act, 1930 covers definitions of buyer, delivery, fault, goods, price, seller, property etc. This chapter also highlights contract of sale, difference between sale and agreement to sell and between sale and hire-purchase agreement. It also covers meaning, kinds, perishing of goods. This chapter highlights meaning of price, document of title of goods and stipulations as to time. This chapter also differentiates between condition and warranty, consequence of breach of condition and warranty. It elaborates express and implied conditions and warranties, meaning of caveat emptor, transfer of property as between seller and buyer including rules for transfer of property or ownership in goods. It throws light on transfer of title: sale by non-owners, rights of an unpaid seller, difference between right of lien and right of stoppage of goods in transit, rights of buyer against the seller, meaning and rules of auction sale.

Chapter XVII Nature and scope of limited liability partnership highlights meaning of Limited Liability Partnership (LLP), definitions, features under The Limited Liability Partnership Act, 2008. This chapter also covers difference between LLP, company and partnership firm. It also focuses on LLP Agreement and Foreign LLP. Chapter XVIII Formation and incorporation of LLPs throws light on procedure for incorporation of a LLP, name of LLP and regis-

tered office of LLP and change therein. Chapter XIX partners and their relations covers disqualification of becoming a partner, minimum and maximum partners, designated partners, partners and their relations, cessation of partnership interest, extent and limitation of liability of limited liability partnership and partners, protection to partners and employees of LLP, contribution of partners.

Chapter XX financial disclosures on accounts, audit and taxation of LLPs highlights sections on maintenance of books of account, other records, and audit etc. including other provisions. This chapter also throws light on meaning of investigation, appointment of inspectors, taxation of limited LLP. Chapter XXI Conversion to LLP highlights effects of conversion and registration, second schedule, third schedule, fourth schedule of the LLP Act, 2008. Chapter XXII Winding up and dissolution of a LLP covers definitions of tribunal, liquidator, LLP liquidator, official liquidator. It also highlights modes of winding-up: Voluntary winding-up, Winding-up by the tribunal, provisions applicable to every mode of winding-up. Chapter XXIII The Payment of Wages Act, 1936 covers definitions, responsibilities for payment of wages, time of payment of wages, payment of undisbursed wages in case of death of employed person, deductions from wages, fines, wage registers and penalties. Chapter XXIV The Payment of Bonus Act, 1965 highlights extent, act not to apply to certain classes of employees, definitions, meaning of computation of gross profits, available surplus, eligibility and disqualification for bonus, minimum and maximum bonus, set on and set off of allocable surplus, recovery of bonus, settlement of disputes, penalties.

Chapter XXV the Payment of Gratuity Act, 1972 covers extent, application, definitions. It also highlights meaning of continuous service, payment and determination of the amount of gratuity, powers to exempt, nomination, Inspectors, recovery, protection and penalties.

The author has presented extensive material on mercantile law. The book covers little portion of Industrial Law. Book has been written in simple and lucid language. It provides good understanding of Laws. Author has tried level best to cover topics of Business Laws i.e. The

Indian Contract Act, 1872, Legality of Object and Consideration, Contracts of Bailment and Pledge, The Sale of Goods Act, 1930, The Payment of Bonus Act, 1965, The Payment of Wages Act, 1936, The Payment of Gratuity Act, 1972. Points to remember, practical problems are given at the end of each chapter. Overall the

book is useful for under-graduate and post graduate students as well as researchers.

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## **INTERNATIONAL HUMAN RESOURCE MANAGEMENT by K. Aswathappa and Sadhna Dash (2013). Tata McGraw Hill; pp 398, Price 425/-**

Today, the corporate world faces unprecedented challenges. Widespread technological revolution has impacted each and every aspect of human life making us marvel at the innovation that the mind can achieve. To survive in today's challenging environment, organizations are consistently thinking strategically and are constantly innovating to align their products, services, processes and resources to engage with their customers as well as with workforces to achieve global advantages. These advantages could be demographic, skill-based, technology driven or pure market/revenue oriented. In today's dynamic environment, a company's critical success factors hinges on well managed supply chain flexibility which is constantly innovating to increase scale and efficiency. And global innovation is the key to gaining ground in developing countries as well as maintaining ground in mature markets. In addition to economic and geographic challenges, political shifts create challenges and opportunities as well.

To compound the challenges, in the time of economic crisis, leaders are looking at ways to improve their productivity and organizational environment in order to sustain the company. In the context of human resources, retention has become a major obstacle facing the emerging manager. Demographically, the existence of four generations in the workforce has caused a critical disparity in achieving cohesiveness of business. Also, it has become near impossible to manage workers in the same manner spread across different countries.

This book International Human Resource Management is an expellant attempt that would help the students and budding HR profession-

als to understand the nuances of International Human Resource Management initiatives. They need to understand that a "global mindset" is often defined as a way of seeing the world and the globalization of markets, organizations and individuals. Developing global mindset requires students to tackle functional, organizational and cross-cultural boundary challenges more effectively and move forward. This book seeks to serve the needs of students who are pursuing courses on international business and human resource management.

This book is divided into fourteen chapters which are in turn segregated into four parts. Part one includes the first two chapters and provides theoretical background to the subject of International Human Resource Management. Chapter one talks about the nature of Globalization, Drivers of Globalization, Ripple Effects of Globalization and the effect of globalization on Indian Economy. There is also a case on Global Human Resource Management at Coco-Cola at the end of the chapter. Chapter two discusses the concept of Multiculturalism. Here in this Chapter, the Nature of Culture, Effects of Culture, Multiculturalism, Cultural Predisposition, Cultural Dimensions, Managing across Cultures and the Relationship between culture and performance is discussed.

Part two includes three chapters; chapter three, four and five which provide the conceptual framework to the topic. Chapter three talks about the nature of IHRM. Here the author has tried to draw a distinction between the Domestic HRM and IHRM, growing interest in IHRM and New dimensions of IHRM. This chapter ends with an informative closing case of the



Human resource Practices at Disney. Chapter four talks about the meaning of Strategic IHRM, its nature, organizational context and its dimensions. Chapter five discuss the HRM in Cross-Border Mergers and Acquisition.

Part three comprises of six chapters: chapter six to eleven that provides an in-depth understanding of the six critical human resource functions in the international context. Chapter six talks about the staffing in International Business. Chapter seven talks about the Training and Development programs at Global companies. This particular chapter ends with the closing case which discusses the Training Program at Mc Donald's. The next chapter i.e; Chapter eight describes the performance management at Global Companies. Chapter nine is about the International Compensation Management. It covers the topic such as the objectives of compensation, compensation philosophy, theories of compensation, compensation strategy, components of Compensation, variables influencing compensation, compensation packages, compensation administration and issues in international compensation. Chapter ten discusses the concepts of Repatriation and Inpatriation, the process of Repatriation and Inpatriation and the various challenges in these two processes. Chapter eleven tells about the international Industrial relations and its related concepts.

The last part of the book is part four which comprises of three chapters, Chapter twelve, thirteen and fourteen. Chapter twelve elaborates the ethical and social responsibility dimension

of international businesses. Chapter thirteen showcases the future of IHRM. Here in this chapter, strategies for developing and retaining employees, workforce rationalization, evolving nature of international employment, gender diversity, maintaining competitiveness, building service-oriented organization and organizational redesign is being discussed. The last chapter of the book i.e.; Chapter fourteen shares the information on the HRM practices in Different countries.

International Human Resource Management is rich in pedagogical inputs. Each chapter has learning objectives, chapter summary, review questions, key terms and a set of assignments that students are encouraged to carry out. The assignment designed enable students to apply the theoretical concepts in each chapter to the current happenings in the industry, thereby enhancing awareness of the challenges that corporations face while operating in the multinational environment and the HR impact of these challenges. The text displays real industry experiences as boxed items, making it easier to understand the theory. Each chapter starts with an opening case and ends with a closing case. The concepts and principles have been explained with contemporary business examples from multinationals across the globe. A bias towards the Indian businesses is evident.

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## INDEX OF ARTICLES (Based on PIMR Library)

### ACCOUNTING

- Gupta, Mohender and Mehak (2010). "An Analytical Study on Accounting Standard -14", **Pragyaan**, 8(2), 21- 27.
- Sahut, Jean-Michael (2010). "Have IAS ( International Accounting Standards) IFRS improved the Information Content of Intangibles in France", **Journal of Financial Management and Analysis**, 23(1), 52-62.

### ADVERTISING AND PUBLIC RELATIONS

- Joshi, Manu; Joshi, S. and Singh, V.K. and Nagar, Shruti (2011). "Challenges of Indian Advertising Agencies", **Pragyaan** (9), 1, 20-28.
- K. Ansal, Purva and Sharma, Himanshu R. (2011). "Effect of Absurdity in Advertising on Brand Recall ", **Indian Journal of Marketing**, 41(7), 03-08.
- Kumar, Brajesh and Patra, Gouranga (2011). " Socio-Economic and Cultural Profile and the Success of Advertising : An Empirical Study", **Management and Change** 15(1-2), 121-135.
- Kumar, S. Ramesh (2011). " Junk Food Advertisements with Free Offer : Their Repercussions on the Minds of Children in the age Group of 3-10 years", **Indian Journal of Marketing**, 41(9), 73-78.
- Puranik, Rakshita (2011). " Effectiveness of Humor Appeal in Advertisements of Fast Moving Consumer Goods ( FMCGs )", **Indian Journal of Marketing**, 41(9), 38-44.
- Sofat, Yashmin (2011). " Strategy of Advertising Agencies in India for Evaluating Advertising Effectiveness Across Experience ", **Indian Journal of Marketing**, 41(9), 62-72.

### BANKS AND BANKING

- Agrawal, Rashmi (2011). " Moderating Effect of Value and Satisfaction on Loyalty", **Vishwakarma Business Review**, 01(1), 23-27.
- Ajao, Mayowa Gabriel (2011). " Queuing Theory : A Model for Improving Customer Satisfaction in the Nigerian Banking Industry", **Prajnan**, XL(1), 63-76.
- Arora, Anju (2011). " Benchmarking Credit Risk Management Operations and Systems at Transaction Level : An Evaluation of Indian Commercial Banks ", **Prajnan**, XL(2), 99-122.
- Bedi, Monica (2010). " An Integrated Framework for Service Quality, Customer Satisfaction and Behaviour Responses in Indian Banking Industry : A Comparison of Public and Private Sector Banks", **Journal of Services Research**, 10(1), 157-172
- Chowdhury, Subroto (2011). "The Financial Inclusion Network : Indian Postal Banking Services", **Management and Change**, 15(1-2), 167-180.
- Das, M.K. and Meunviseth, Souriya (2011). "The Role of the Bank of Lao PDR in Controlling Money and Forex Market", **Pragyaan** (9), 1, 05-13.
- Daneshvar, P. and Ramesh, H.N. (2011). "Gaining Competitive Advantage through Quality of Internet Banking Services

: An Empirical Study in the Indian Private Bank Sector", **Journal of Marketing and Communication**, 6(1), 34-43.

- Gupta, Kamal and Bansal, Ipsita (2011). "Effect of Demographic Variables on Customer Perceived Internet Banking Service Quality : Empirical Evidence From India", **Paradigm**, XV, (1-2), 83-92.
- Haron Sudin (2011). " Estimating Technical and Scale Efficiency of Malaysian Commercial Banks : A Non-Parametric Approach ", **Finance India**, XXV(2), 447-460.
- Issac, Diana (2012). " The Indian Banking Sector : The Road Ahead", **SAJOSPS**, XIII(1), 92-94.
- Jarboui, Anis and Fakhfakh, Hamadi (2011). " Debt Management by Banks and Expansion of the Special Investments : The French Experience", **Finance India**, XXV(2), 525-542.
- Khandelwal, Anil (2011). " Indian-European Free Trade Agreement : Comparison of the Banking Regulations at Macro Level", **Prajnan**, XL(2), 137-154.
- Kumar, Barik Prasanna (2011). " Hearing Effectiveness with CNX Bank Nifty and Nifty Futures : VECH (H.) Approach", **Finance India**, XXV(2), 429-446.
- Kumar, Dilip and Maheswaran (2011). " Volatility Persistence in the Presence of Structural Breaks in the Indian Banking Sector", **Paradigm**, XV, (1-2), 08-17.
- Kumar, Sharad (2010). " Personality Profile of Indian Bankers", **Udyog Pragati**, 34(3), 22-28.
- Kumbhar, Vijay (2011). " Determinants of Customers Satisfaction in ATM Service Setting : Empirical Evidence from India", **Prajnan**, XL(2), 123-136.
- Mann, B.J. and Sahni, S.K. (2011). " Inter-Relationship of Web Site Interactivity and Customer Outcomes : Building Trust in Internet Banking Web Site", **Global Business Review**, 12(1), 99-115.
- Mehra, Yogieta (2011). " Operational Risk Management : A Study of Practices in Indian Banks ", **Prajnan**, XL(3), 167-192.
- Mittal, R. K. and Khera, Shikha (2009). " An Analysis of Managerial Competencies of Bank Branch managers in India : A Study of Private and Public Sector Banks", **Management and Change** 13(2), 31-44.
- Noor Mohamad Akbar and Ahmad, Nor Hayati Bt (2012). " The Determinants of Islamic Banks Efficiency Changes; Empirical Evidence from the World Banking Sector ", **Global Business Review**, 13(2), 179-200.
- Pillai R, Prakash (2011). " Learning Orientation of Bank Employees", **AIMS International Journal of Management**, 5(1), 47-62.
- Prabhakar, A.K. and Sheriff S. Feroze (2012). " Relative Efficiency of Banks in India : Evaluation and Policies for Improvement " , **AIMS International Journal of Management**, 6(2), 109-136.
- Prabhakar, A.K. and Sheriff S. Feroze (2012). " Relative Efficiency of Banks in India : Evaluation and Policies for Improvement", **AIMS International Journal of Management**, 06(02), 119-136.

- Prema C. and Sudhahar,Clement (2010).Internet Banking Acceptance,Self efficacy and Perceived Security An Extended Technology Acceptance Model", **Journal of Banking, IT and Management**,7(2),91-102.
- Raju,M.Thiripal and Acharya,Rajesh(2010)." The Cost of Equity for Indian Banks: A CAPM Approach",**Prajnan**,39(3),199-216.
- Rao,Hanumantha (2011)." Spread Analysis of Indian Banks For the Period 2006-11", **Paradigm**,XV,(1-2),26-33.
- Roy,Nibedita and Chakraborty,Tanupa (2011)." Drivers of Securitisation in Indian Banking Industry : An Empirical Study ", **Paradigm**,XV,(1-2),01-07.
- Sakthivl,P.and Kamaiah B. (2011)." Dynamic Interrelationship between Stock and Foreign Exchange Markets : Evidence from India", **Prajnan**,XL(3),193-214.
- Sharma,Sanjeev (2011)." Basel- II Norms and Performance of Indian Banking Sector with Special Emphasis on NPA Management and Capital Adequacy Ratio", **Journal of Banking,IT and Management**,08(2),50-61.
- Singh,Fulbag and Kaur,Davinder(2010)." Service Quality and Customer Satisfaction in Banks: A Review", **Prajnan**,39(2),109-126.
- Sufian,Fadzman and Noor,Mohamad Akbar (2012)." Determinants of Bank Performance in a Developing Economy: Does Bank Orgins Matters "**Global Business Review**,13(1),01-23.
- Uppal,R.K.(2011)."Deregulation and Changes in the Performance of Indian Banks ", **Vishwakarma Business Review**,01(1),36-43.
- Verma,Richa (2011)." Performance of Scheduled Commercial Banks in India : An Application of DEA",**Decision**,38(1),5-76.
- BRAND MANAGEMENT**
- Dou,W. ; Lim,K.H. and Su,C.(2010)." Brand Positioning Strategy Using Search Engine Marketing", **MIS Quarterly**,34(2),261-280.
- Kolhatkar,Malhar and Kulkarni,Nirzar (2011)." Demystifying Buying Behaviour of Indian Consumer : Comparative Brand Preference Analysis", **Vishwakarma Business Review**,01(2),58-62.
- Kureshi,Sonal and Sood,Vandana (2012)." In Film Placements of Product Brands in Hindi Films : Practices and preferences ",**South Asian Journal of Management**,19(2),37-59.
- Memon,Sharif (2011)." Intrnational Brands and the Indian Consumer : A Study of Critical Success Factors with Special Focus on Select FMCG Brands ", **Indian Journal of Marketing**, 41(9),04-15.
- Sahay ,Arvind and Sharma,Nivedita (2010)." Brand Relationship and Switching Behaviour for Highly Used Products in Young Consumers", **Vikalpa**,35(1),15-30.
- Samudre,Milind M.(2011)." The Role of Corporate Branding in a Market Driving Strategy with Special Reference to Ecoboard Industries Ltd.", **Ethos** 4(2), 37-48.
- Siddhanta,Somroop and Pal,Swati (2011)." The Challenges in Establishing Prerequisites and Characteristic Features of Global Brands", **Pragyaan** (9),1,49-53.
- Venkateswaran,R.S.;Ananthi,N. and Muthukrishnan,K.Binith (2011)." A Study on Customers Brand Preference for Selective Household Brands at Dindigul , Tamil Nadu ", **Indian Journal of Marketing**, 41(10),09-22.
- Verma,H.V.(2011)."Skin Fairness : Culturally Embedded Meaning and Branding Implications ", **Global Business Review**,12(2),193-211.
- CASES**
- Bhattacharya,A.(2011)." Graduating into the Big League : From an Equipments Supplier to a Trunkey Project Contractor",**Decision**,38(2),84-101.
- Ganguly,Kunal ((2013)." Case Study Approach for Understanding inbound Supply Risk Assessment", **Decision**, 40(1-2),85-97.
- Banerjee,P.L. ; Husain,A.Sakeer and Bijukumar,S. (2011)." Marketing of Titanium Dioxide by Kerala Minerals and Metals limited An Analysis", **Indian Journal of Marketing**, 41(8),41-46.
- Bhati,Rajesh ;Maniar,Hiren and Maniyar,Dharmesh (2011)." Arbitrage Opportunities in Intraday Trading between Futures,Options and Cash Markets : Case Study on NSE India", **Finance India XXV** (1),163-187.
- Chawla,D. and Sondhi,N.(2011)." Assessing the Role of Organizational and Personal Factors in Predicting turn-over Intentions : A Case of School Teachers and BPO Employees",**Decision**,38(2),05-33.
- Dabade,M.S.(2011)." Employment Generation by Sugar Co-operatives in Rural Areas : A Case Study of Shri Dattas Shetkari Sahakari Sakhar Karkhana Ltd., hirol",**Ethos**,4(1),60-71.
- Das,Bidipta ; Rao,Menaka and Srinivasan,Vasanthi (2012)." Bridging the Cross-Cultural Transformation Li (Distance Measure ) at Huawei technology India Private Limited", **South Asian Journal of Management**,19(1),138-153.
- Das,K.and Garg,R.(2011)." CRM Best Practices : A Cse Study Research on State Bank of india", **Journal of Marketing and Communication**,6(1),13-20.
- Dash,Ajit Kumar (2011)." Use of Online Social Networking Sites by College Students and its Implications for Marketing : A Case Study in Tripura ", **Indian Journal of Marketing**, 41(10),68-76.
- Datta,S. and Vijayvargy,L.(2011)." Enhancing Market Presence in Jaipur : A Case of Indian Chocolates", **Journal of Marketing and Communication**,6(1),04-12.
- Gunpath,Rajendra Prasad (2011)." Small and Medium Enterprises (SMEs) in Develping Countries the Mauritian Success Case Study", **Vishwakarma Business Review**,01(2),63-68.
- Jakhotiya Girish P. (2011)."Pseudo Privatisation",**Ethos** 4(2), 103-109.
- Jakhotiya,G.P.(2011)."Peoples Trust for Public Finance", **Ethos**,4(1),92-95.
- Joseph,J.and Jagannathan,S. (2011)." Employment Relations and Managerialist Undercurrents ; The Case of Payment of Gratuity Act,1972", **The Indian Journal of Industrial Relations**",47(2),253-263.
- Joshi,M.;Ubha,D.S. and Sidhu,J.(2011)." Intellectual Capital Disclosures in India : A Case Study of Information Technology Sector",**Global Business Review**,12(1),37-49.

- Khan, Mohd Azam and Ansari, Iqbal Zafar (2010). "Municipal Solid Waste Management in India : A Case Study of Aligarh City ", **Pranjana**, 13(2), 92-104.
- Kumar, R. and Dhankar, R.S. (2011). " Non Linearity and Heteroskedasticity Effects on Stock Returns Volatility : A Case of US Stock Market", **Global Business Review**, 12(2), 319-329.
- Kumbhar, V.M. (2011). " E-Banking and its Impact on Customer Satisfaction : A Case Study of Public and Private Sector Banks in Satara City ", **Ethos**, 4(1), 72-80.
- Korra, Vijay (2012). " The Role of Seasonal Labour Migration in Household resources : A Case Study in Mahabubnagar district of Andhra Pradesh", **Decision**, 39(2), 86-99.
- Lakshmanan, S. and Narayanswamy, B. (2011). " A Case Study of H. doddi Sericulture Quality Club in Magadi Taluk of Ramanagaram District of Karnataka - TNA Approach ", **Indian Journal of Training and Development**, 41(4), 01-04.
- Lather, Anu Singh and Vikas, Sonu (2010). " Sustainable Business Strategy or Eyewash for Unethical Business Practice : A Study of the CSR Initiatives of Coca Cola India " , **Management and Change**, 14(2), 01-21.
- Nayak, Sunanda and Bhatnagar, Jyotsna (2011). " Talent management in the Healthcare Industry : The Case of Pulse Care Hospital " , **Management and Change** 15(1-2), 209-225.
- Patil, A.V. (2011). " Export Marketing System of Floriculture : Shrivardhan Biotech, Kondigre : A Case Study " , **Ethos**, 4(1), 81-91.
- Parulekar, Ajay (2011). " Case of Missing Deliveries", **Vishwakarma Business Review**, 01(1), 78-80.
- Perera, H.S.C. and Kulasoorya, M.A. (2011). "Lean Manufacturing : A Case Study of a Sri Lankan Manufacturing Organization " , **South Asian Journal of Management**, 18(1), 149-158.
- Prabhu, Dwarkanath and Hegde, Sateesh (2012). " Design and Implementation of Performance Management Systems LPIs and Responsibility Centers : A Case Study " , **South Asian Journal of Management**, 19(2), 121-133.
- Roy, S. (2011). " Competitiveness in Service Sector : A Case of Hotel Industry in India", **Global Business Review**, 12(1), 51-69.
- Sahoo, T.; Banwet, D.K. and Momaya, K. (2011). " Developing a Conceptual Framework for Strategic Technology Management Using ISM and MICMAC Methodology : A Case of Automotive Industry in India", **Global Business Review**, 12(1), 117-143.
- Saini, Debi S. (2011). " Westing Tours and Travels INC : The Clash of Two Cultures", **Management and Change** 15(1-2), 203-208.
- Salwan, Prashant (2011). " Growth and Internationalization : The Case of TATA Motors", **The Indian Journal of Industrial Relations**, 47(1), 01-19.
- Satrya, A. and Parasuraman, B. (2011). " Multi-Dimensional Approach to Union Effectiveness : Case Studies from Indonesia and Malaysia", **The Indian Journal of Industrial Relations**, 47(2), 219-234.
- Seth, Vijay K. (2012). " The East India Company : A Case Study in Corporate Governance " , **Global Business Review**, 13(2), 221-238.
- Shekhar, Shantanu (2011). " Building Successful Retail Strategies : A Case Study of Coupon Store " , **Indian Journal of Marketing**, 41(10), 45-56.
- Shetty, A. Shivakanth (2011). " Nokias Shrinking Market Share in India : Can Nokia Sustain its First-Mover Advantage?", **Indian Journal of Marketing**, 41(8), 36-40.
- Singh, Surender and Mishra, R.C. (2012). " The Emergence of SWFs and Its Implications to Global Financial System : A Case Study of India", **South Asian Journal of Management**, 19(2), 23-36.
- Singhania, Monica (2013). " CPC Bangalore : Business Process Redign", **Decision**, 40(1-2), 135-144.

## CONSUMER BEHAVIOUR

- Damjanovic, Vesna and Milicevic (2010). " The Study of the Serbian Young Consumer Attitude towards Mobile Advertising " , **Pranjana**, 13(2), 01-15.
- Makgosa, Rina and Mabalane, Nchenesi (2011). " Fast Food Purchase Behaviour in Botswana : An Exploratory Study " , **Indian Journal of Marketing**, 41(11), 23-30.
- Menon Balakrishnan and Raj V.P. Jagathy (2012) " Consumer Purchase Behaviour Model on Passenger Cars", **AIMS International Journal of Management**, 6(1), 41-58.
- Mishra, Manit (2011). " Assessment of Influence of Materialistic Values on Consumption Innovativeness", **Indian Journal of Marketing**, 41(9), 23-30.
- Neelmani, Nilesh (2011). " Consumer Attitude towards FMCGs : A Comparative Study of Private Labels and National Brands", **Indian Journal of Marketing**, 41(8), 28-35.
- Rajanikanth, M. (2011). " Consumerism : A Study on the Evolution of the Consumer Movement " , **Indian Journal of Marketing**, 41(10), 04-08.
- Ramanathan, V. and Hari, K. (2011). " A Study on Consumer Perception about Organized Vs Unorganized Retailers at Kanchipuram, Tamil Nadu", **Indian Journal of Marketing**, 41(12), 11-23.
- Sharma, R. (2011). " An Investigation into Impulse Buying Behaviour Among Indian Urban Adolescents", **Abhigyan**, 28(4), 43-49.
- Sulthana, Nasrin and Murugan, Sakthivel (2011). " A Study on Consumer Buying Behaviour of Home Appliances with Reference to LG Products", **Indian Journal of Marketing**, 41(12), 52-60.
- Trivedi, Arti ; Suri, Beenu and Mishra, Saurabh (2011). " Moments of Truth : An Empirical Analysis of Indian Consumers " , **Indian Journal of Marketing**, 41(12), 39-51.
- VAni, G. ; Babu, Ganesh and PAnchanatham N. (2011). " Consumer Buying Behaviour Model for Toothpastes " , **Indian Journal of Marketing**, 41(10), 57-67.
- Vijayakumar, M. and Subburaj, B. (2011). " Housing Finance : An Analysis of Post Purchase Behaviour of Consumers " , **Indian Journal of Marketing**, 41(10), 23-31.
- Yallatti, Ravasaheb M. (2011). " Buying Behaviour towards Life Insurance Policies and Services in Rural Area : An Empirical Study", **Ethos** 4(2), 70-80.

## CUSTOMER RELATIONSHIP MANAGEMENT

- Andotra, Neetu and Chalotra, Vipul (2011). " Information Sharing in Managing Collaborative Relationship : An Analyti-

- cal and Empirical Investigation ", **Indian Journal of Marketing**, 41(12),31-38.
- Bapat,Dhananjay Bapat (2012)." Customer Relationship for Electronic Payment Products : An Empirical Investigation in India", **Global Business Review**,13(1),137-151.
- Khan,Mohammed Nved (2011)." A Study on CRM Practices for Public Sector Insurance Companies", **Indian Journal of Training and Development**, 41(4),49-58.
- Roy,R. ; Bhattacharya,A.K. and Sengupta,P.P.(2011)." A Comparative Study of Customer Satisfaction Between Two Indian Retail Brands", **Global Business review**,12(2),331-342.
- Satish,S.M.and Bharadhwaj,Sivakumaran (2010)." Information Search Behaviour among New Car Buyers : A Two Step Cluster Analysis",**IIMB Management Review**,22(1-2),05-15.
- Shruthi,V.K. and Devaraja T.S. (2011)." Building Customer Relations Through CRM : A Theoretical Framework of Software Services Firms in Bangalore Cluster ", **Indian Journal of Marketing**, 41(11),46-53.
- Singh,Dalbir and Ram,tika(2011)." CRM Practices at Organizational Level in Banking Sector : An Empirical Study", **Pragyaan (9)**,1,14-19.
- E-COMMERCE BUSINESS**
- Gumussoy,Cigdem Altin and Calisir,Fethi (2010)." Acceptance of E-Reverse Auction Use: An Empirical Comparison of Models", **Pranjana**,13(1),16-26.
- Sharma,Rajendra P. ;Chittora,Gajendra and Saxena,Karumesh (2010)." An Empirical Study of E-Commerce Practices of Indian Organisations ", **Management and Change** ,14(2),231-240.
- ECONOMICS**
- Banik,Nilanjana and Yoonus (2012)." Trade as an Answer to Sustainable Economic Growth : The ECOWAS Story", **Global Business Review**,13(2),311-326.
- Bhaskaran,P.B.(2011)." Strategic Firm Response to Developing Economy Challenges",**Global Business Review**,12(1),71-86.
- Bhatnagar,Vinod K. (2011)." Foreign Institutional Investors (FIIs) Investment in India : A Trend Analysis of Monthly Flows during January 2004-August 2010", **Vishwakarma Business Review**,01(2),25-34.
- Bhola,Sarang S. and Zanvar,Priyanka S.(2011)."A Study of Investment Pattern of Socio Economic Class A1", **Vishwakarma Business Review**,01(1),14-22.
- Chakravarty,S.L.(2011)." Exchange Rate Regime and Monetary Independence : The Indian Experience", **Decision**,38(2),34-50.
- Das,koushik and Chakraborti,Pinaki (2013)."General Equilibrium Analysis of Trade and Environment under alternative market Structure : A Computable General Equilibrium Study for India ", **Decision**,40(1-2),99-116.
- Dash,A.K. and Padhi,H. (2011)." Corporate Consciousness : A Wakeup Call", **Global Business Review**,12(2),247-256.
- Deb,Kaver and Basu,Partha (2012)."South Asian free area and its impact on exports of SAARC LDCs to India",**Decision**,39(2),21-44.
- Debasish,Sathya Swaroop (2010)."A Study of Granger Causality between Spot and Futures Prices for Selected Companies" , **Management and Change** ,14(2),29-48.
- Dhingra,Neerja (2012)." Future Prospects of Foreign Direct Investment Inflows to India", **The Asian Economic Review**,54(1),123-136.
- Dixit,Shailja and Joshi,Manoj (2011)." Enhance Competitiveness of the Indian Automobile Industry : A Study Using Porters Diamond Model", **Management and Change**15(1-2),181-202.
- Dramani,John Bosco and Tandon,Francis (2012)." Economic Growth and Financial Development : Evidence from Ghana ",**The Asian Economic Review**,54(3),449-470.
- Gaan,Niharika (2012)." Collaborative tools and Virtual Team Effectiveness : An Inductively derived approach in Indias Software Sector", **Decision**,39(1),5-27.
- Ghosh,S.(2011)." Disinvestment,Lending Relationships and Executive Compensation : Evidence from the Indian Experience", **Global Business Review**,12(2),213-235.
- Goel,Shuchi (2011)." Price Behaviour of Global Depository receipts", **Journal of Banking,IT and Management**,08(2),36-49.
- Jamali,Mohammad Ali and Nor.Nor Ghani Md.(2012)." Growth of Firms in Manufacturing Sector : A Panel Data Analysis in Iran ",**Global Business Review**,13(1),51-68.
- Kaur,Mandeep and Sharma,Renu (2013)." Determinants of Foreign Direct Investment in India : An Empirical Study", **Decision**, 40(1-2),57-67.
- Kolluru,S. and Rao,B.(2011)." East Asian Experience on Growth and Equity : Lessons and Implications", **Global Business Review**,12(2),237-246.
- Koul,Saroj and Atul V. (2012)" Good as New : The Promise of Revamping in the Indian Steel Industry", **AIMS International Journal of Management** ,6(2),137-151.
- Kudachimath,Basavaraj S. and Chavan,V.M.(2011)." Impact of Foreign Investment Inflows on Indian Economic Indicators : An Empirical Analysis", **Ethos** 4(2), 13-23.
- Lakshmanasamy,T.(2012)." Neuroeconomics : The Science of the art of Decision Making", **The Asian Economic Review**,54(1),49-98.
- Manonmani,M.(2012)." Analysis of Productivity in Indian Industries", **The Asian Economic Review**,54(1),111-122.
- Mathew,M.;Mukhopadhyay,C.and Raju,D.(2012)." An Analysis of Patent Pricing", **Decision**,39(1),28-39.
- Mehrotra,Utkarsh (2012)." The Market Triumphs ", **The Asian Economic Review**,54(1),137-158.
- Mariappan,R.(2011)."Growth and Productivity of the Unorganized Manufacturing Sector in India",**The Indian Journal of Industrial Relations**,47(1),20-35.
- Mishra,P.K. (2011)." Causality between Credit Market Development and Economic Growth in India : Toda and Yamamoto Approach ", **Vishwakarma Business Review**,01(1),28-35.
- Mishra,P.K.(2012)." The Nexus between Resource Mobilization by Mutual Funds and Economic Growth in India", **Global Business Review**,13(1),123-136.
- Mishra,Sanjay Kumar and Mumar,Manoj (2012)." The Impact of Perceived Purchase Risk on Investment Behaviour of Mutual Fund Investors",**Decision**,39(2),3-20.

- Mitra,Sudeshna and Gupta,Kausik (2012).“ Foreign Capital,Wage Inequality and Welfare in the Presence of Technology “, **The Asian Economic Review**,54(3),557-564.
- Mohapatra,Nihar (2011).“ Economics of Ecotourism : A Study on Orissa”, **Indian Journal of Marketing**,41(7),36-42.
- Mukherjee Sulagna and Mahakud,jitendra (2012).“ Historical Market-to Book Ratio and Corporate Capital Structure : Evidence from India “, **Global Business Review**,13(2),339-350.
- Mukhopadhyay,Kakali and Thomassin,Paul J.(2012).“ Impact of East-Asian Free Trade on the Environment : A ATAP Exercise”, **The Asian Economic Review**,54(1),19-78.
- Narayana,B.(2012).“ An Economic nalysis of Agriculture in Andhra Pradesh”, **The Asian Economic Review**,54(1),171-182.
- Parasuraman,Balakrishnan and Rahman,Badariah (2011).“ JCC in Malaysian Public Sector : Rhetoric or Reality”,**The Indian Journal of Industrial Relations**,47(1),78-88.
- Pradhan,R.P.(2011).“ Effects of Health Spending on Economic Growth : A Time Series Approach”, **Decision**,38(2),67-83.
- Raghuvanshi,Rinku (2010).“ Economic growth of Uttarakhand : A Study “, **Pranjana**,13(2),72-81.
- Sakthive,N.(2010).“ The Impact of Economic Value Added ( EVA) on Shareholders Value : An Empirical Evaluation” , **Management and Change**,14(2),167-208.
- Shahbaz Muhammad and Rahman,Mohammad Mafizur (2012).“ The Dynamic of Financial Development,Imports, Foreign Direct Investment and Economic Growth : Cointegration and Causality Analysis in Pakistan”, **Global Business Review**,13(2),201-219.
- Sharma,Meena (2011).“ Market Valuation of Research and Development Investment by Indian Firms”, **Paradigm**,XV,(1-2),34-38.
- Singh,,V.K. ; Ahmad,N. and Pachori,P.(2011).“Empirical Analysis of GARCH and Practitioner Black Scholes Model for Pricing S&P CNX Nifty 50 Index Options”,**Decision**,38(2),51-66.
- Singh,D.(2011).“ Casual Relationship Between Macro-Economic Variables and Stock Market : A Case Study for India “, **Abhigyan**,29(1),18-27.
- Sinha,anand (2012).“Changing Contours of Global Crisis Impact on Indian Economy”,**The Asian Economic Review**,54(1),01-18.
- Soltane,Bassem and Trigui,Borhen (2011).“ Determinants of Repayment Performance in the Individual Microlending : Evidence from Tunisia”, **Finance India XXV** (1),131-151.
- Srikanth,maram and Kishore,Braj (2012).“ FDI and Its Impact : An Empirical Investigation for the Measurement of Human Development”,**The Asian Economic Review**,54(3),481-494.
- Srivastava,Swami Prakash (2012).“ GM/Bio Tech Crops and its Future Impact on Indian Economy : Issues and Challenges”,**SAJOSPS**,XIII(1),09-21.
- Sumanjeet(2012).“ The Export Performance of Indian Economy During and Following the Global Financial Crisis” ,**The Asian Economic Review**,54(3),407-430.
- Turan,Alexander (2012).“ The European Debt Crisis : New Standards in Monetary Policy”,**SAJOSPS**,XIII(1),73-77.
- Vighneswara,Swamy (2012).“ Euro Crisis : Implications for Banking Sector “ , **The Asian Economic Review**,54(2),389-406
- Waheed,Abdul (2012).“ Economic Uncertainty,Investment and Growth : Cross Country Empirical Analysis for Fifty Developing Countries”,**The Asian Economic Review**,54(1),159-170.
- Waingade,Rajkumar A. (2011).“ Disaggregated Analysis of Inflation in India”,**Ethos** 4(2), 49-59.

## EDUCATION

- Damle,Balkrishna D. (2011).“ Educational Technology : An Overview “, **Vishwakarma Business Review**,01(2),69-73.
- Gupta,Namrata and Sharma,R.R.K.(2011). Research Culture in Academia : A Conceptual Scheme and its Application”, **AIMS International Journal of Management**,5(1),35-46
- Limaye,Shirish and Tamhankar,S.(2011).“ An Innovative Experiment in Business Education”, **Vishwakarma Business Review**,01(1),59-65.
- Marimuthu,M. and Ismai,Ishak (2012).“ Service Quality in Higher Education : Comparing the Perceptions of Stakeholders “, **AIMS International Journal of Management** ,6(2),87-100.
- Marimuthu,Malliga,Ismail,Ishak (2012).“ Service Quality in Higher Education : Comparing the Perceptions of Stakeholders “, **AIMS International Journal of Management**,06(02),87-100

## GENERAL

- “Gani,Abdul and Ara,Roshan (2010).“ Correlates of Work-Family Conflict among Dual Career Women” , **Management and Change** ,14(2),145-166.
- Bharathi,S.Vijaykumar ;Vaidya,Omkarprasad and Parikh,Shrikant (2012).“ Prioritizing and Ranking Critical Success Factors for ERP Adoption in SMEs” **AIMS International Journal of Management**,6(1),23-40.
- Bhat,Mohd. Shafi (2012).“ Trajectory of Kashmiri Identity”, **SAJOSPS**,XIII(1),60-62.
- Bhat,Mushtaq Ahmad (2012).“ Tourism Service Quality : A Dimension-specific Assessment of SERVQUAL”,**Global Business Review**,13(2),327-337.
- Bose, Indranil (2011).“ Contemporary Trends of Expatriate Compensation in India : An Overview”, **Vishwakarma Business Review**,01(1),48-53.
- Chavan,S.R. and Gotmare,Dilip (2011).“ Corporate Governance : Changing Business Scenario”, **Vishwakarma Business Review**,01(2),74-77.
- Chawla,D.and Sondhi,N.(2011).“ Assessing Work Life Balance Among Indian Women Professionals”, **The Indian Journal of Industrial Relations**,47(2),341-352.
- Chen,Hui Chuan and Prater,Edmund (2012)“Police Presence as a Mediator on Crime Incidents and Residential Property Values”, **AIMS International Journal of Management**,6(1),59-72.
- Das,Debabrata (2011).“ Deterioration in Public Transport : A Boon for Personal Vehicles”, **AIMS International Journal of Management**,5(2),141-151.
- Dastidar,Surajit (2011).“ Efficient Partitioning and Routing of Shipments in a Time Schedule Network”, **AIMS International Journal of Management**,5(1),63-74.

- Diwan,Parag ; Dubey,Rameshwar and Tiwari,Saurabh (2011).“ The Vehicle Routing Problems with Backhaul (VRPB) Option : A Customer Centric Approach Algorithm “, **AIMS International Journal of Management**,5(2),131-140.
- Dawer,Aashita (2012).“Inclusive Growth : Significance of the Manufacturing Sector”, **The Asian Economic Review**,54(1),99-110.
- Fernandes Denzil and Paul,Bino (2011).“ Social Network of Migrant Construction Workers in Goa”, **The Indian Journal of Industrial Relations**,47(1),65-77.
- Ganaie ,Muzaffar Ahmed (2012).“ Re-visiting 123 Agreement and the Hyde Act : What it Means for India and the United States ?”, **SAJOSPS,XIII(1)**,26-30.
- Ganesh,Anjali (2010).“ Extrapolating Group Decision Making : Means to Overcome Group-Think” , **Management and Change** ,14(2),241-258.
- Gnanakumar,P. Baba (2012).“ Social Fluidity Mapping System : A Way to Reduce Social Stigma in Business Failures “, **South Asian Journal of Management**,19(1),32-50.
- Gholampoor,M. ; Kharche,R.M. and Pathade,G.R.(2011).“ The Status of Confused Market and BT Brinjal in India : A Review “, **Ethos**,4(1),39-48.
- Gupta,Anandra Das (2012).“ Corporate Social Responsibility and Strategy : A Birds Eye View”, **Global Business Review**,13(1),153-165.
- Huang,Z. ; Han,X. and Roche,X.(2011).“ The Dilemma Facing Strategic Choice of Entry Mode : Multinational Hotels in China” , **Global Business Review**,12(2),181-192.
- ### INSURANCE
- Kollias,Christos and Mastronikolos,Apostolos (2011).“ Empirical Examination of the Impact of Terrorist Attacks : Newyork,Madrid,London On Stock Returns: Cross Stock Market Study “, **Journal of Financial Management and Analysis**,24(1),01-23.
- Kumar,Rohit and Singh,Manjit (2010).“ Using Servqual Model for Comparative Service Quality Analysis of the Indian Non-Life Insurance Sector”, **Paradigm**,XIV,(2),56-63.
- Negi,Meenakshi and Kaur,Parmjit (2010).“ A Study of Customer Satisfaction with Life Insurance in Chandigarh Tricity”, **Paradigm**,XIV,(2),29-44.
- Sharma,Deepa (2010).“Redress of Insurance Consumers grievances : A Study of Company Executives Perception”, **Paradigm**,XIV,(2),01-12.
- Silva,Bernadette and D’Silva Stephen (2011).“ A Study on the Factors Influencing the Insurance Coverage of the Girl Child in India : An Empirical Study “, **Indian Journal of Marketing**, 41(11),15-22.
- ### KNOWLEDGE MANAGEMENT
- Chawla,D. and Joshi,H.(2011).“ A Comparative Study of Knowledge Management Assessment in Business Excellence Awarded and Non-awarded Organizations in India”, **Global Business Review**,12(2),279-295
- Chawla,D.and Joshi,H.(2011).“ Knowledge Management Across Various Hierarchical Levels in Indian Organizations : A Comparative Study”, **Abhigyan**,28(4),06-18.
- Jagdale,Prakash (2011).“ Use of Expert Model and Knowledge Management “, **Journal of Banking,IT and Management**,08(2),73-80.
- Markale,Aditi (2011).“ A Study of the Knowledge Management Systems in Software Dependent Organisations”, **Vishwakarma Business Review**,01(1),73-77.
- Singh,Nityanand and Javadekar,Prachee (2011).“ Supply Chain Management of Perishable Food Products : A Strategy to Achieve Competitive Advantage through Knowledge Management “, **Indian Journal of Marketing**, 41(10),32-44.
- ### LAW
- Tiwari,B.K.(2012).“ Speedy Trial is a Fundamental Right”, **SAJOSPS,XIII(1)**,39-43.
- ### MARKETING MANAGEMENT
- Anandaraj,P. and Chinniah,V. (2011).“ A Study of the Marketing Problems of Mango Growers ( Using Factor Analysis ) in Madurai District,Tamil Nadu “, **Indian Journal of Marketing**, 41(12),24-30.
- Bhat,Anil (2012).“Price Quality Tradeoff : An Integrative Review of Theory and its Implication for Marketing Practice” , **AIMS International Journal of Management** ,6(2),153-166.
- Dhyani,Atul and Bist,Manoj (2010).“ Preferences and Attitude of Indian Consumers towards Foreign Brands : with Reference to Durables”, **Journal of Banking IT and Management**,7(1),54-64.
- Bhat.Anil (2012).“ Price Quality Tradeoff : An Integrative Review of Theory and its Implication for Marketing Practice “, **AIMS International Journal of Management**,06(02),153-166.
- Joshi,Sandhya (2011).“ A Study of Service Quality and Customer Satisfaction across Various Service Providers in the Telecom Sector “, **Indian Journal of Marketing**, 41(9),55-61.
- Kapoor,Neeru and Renu(2010).Brand Choice Behaviour of Consumers ( A Perceptual Profile)”, **Journal of Banking,IT and Management**,7(2),61-70.
- Karthikeyan,K.(2010).“ An Empirical Study on Indian Retail Shopping Behavior”, **Pranjana**,13(1),88-97.
- Kaushal,Shailesh K. (2011).“ A Survey of Teenagers Apparel Purchase Behaviour : Fashion Apparels, Promotion, Reference group and Body Cathexis”, **Paradigm**,XV,(1-2),72-82.
- Mandal,Kaushik and Roy,Koushick (2012).“ Impact of Marketers Influence Strategies on Distribution Channel Partners : A Comparison Among Distribution Channel Partners”, **South Asian Journal of Management**,19(1),82-97.
- Mendiratta,Ankita and Mehta,vinayak (2011).“ Effectiveness of Media in Mobilizing People Towards Social Causes and Companies “, **Indian Journal of Marketing**, 41(12),04-10.
- Mahapatra,Sabita : Sreekumar and Mahapatra,S.S.(2010).“ Attribute Selection in Marketing : A Rough Set Approach”,**IIMB Management Review**,22(1-2),16-24.
- Naik,Subhash S. and Reddy,Y.V.(2011).“ The Influence of Decision Makers Characteristics on Export Marketing Performance”, **Vishwakarma Business Review**,01(1),06-13.

- Nsimbi, Catherine Phambuka (2011). "Relationship Building As a Marketing Strategy : A Conceptual Guide for African Exports", *Indian Journal of Marketing*, 41(8),03-11.
- Parekh, Mohit (2011). "GCMMF : Preempting Competition with an Innovative Business Model", *Indian Journal of Marketing*, 41(8),24-27.
- Prasad, m.V. Rama (2011). "Marketing in Global Economic Turbulence : Role of B-schools in Grooming Management Graduates", *Indian Journal of Marketing*, 41(8),52-55.
- Ramakrishna H. (2011). "Marketing of Tourism Products in Karnataka : Policy Implications ", *Indian Journal of Marketing*, 41(11),38-45.
- Ramesh, G. (2011). "Standardization Vs Adaptation of Marketing Strategy : A Qualitative Study ", *Indian Journal of Marketing*, 41(11),54-64.
- Ramesh, H.N. (2011). "customer Loyalty Programs and Marketing Strategies", *Indian Journal of Marketing*, 41(7),51-56.
- Rauf, Abdul and Saraf, Sajad, A. (2011). "Marketing Strategies in Apple Industry : An Empirical Study in Himachal Pradesh and Jammu and Kashmir", *Indian Journal of Marketing*, 41(8),78-86.
- Sapna Rakesh and Singh, Swati (2011). "Netnography : An Emerging Method of Marketing Research : A Conceptual Study", *Indian Journal of Marketing*, 41(8),47-51.
- Sharma, Monika and Kalra, Deepshika (2011). "An Empirical Study of Online Social Influence Marketing With Reference to Customers Product Purchase Decision and Product Recommendation", *Indian Journal of Marketing*, 41(8),68-77.
- Srivastava, Shweta and Sharma, Anand (2010). "A Study of Attitude and Perceptions of Pharmaceutical Value Chain Members towards Consumer Promotions", *Paradigm*, XIV,(2),45-55.

#### MATERIALS MANAGEMENT

- Chavan, Vinay N. (2011). "Complex Dynamic Behaviour for Demands in Supply Chain", *Ethos* 4(2), 93-96.
- Kotni, V.V. Devi (2012). "A Study on Dry Fish Value Chain Management Practices in Indian Marine Fisheries", *SAJOSPS*, XIII(1),78-83.
- Verma, Manish (2012). "A Fixed-penalty Cost and Expected Consequence Approach to Planning and Managing Intermodal Transportation of Hazardous Materials", *AIMS International Journal of Management*, 06(02),101-118.

#### ORGANIZATIONAL BEHAVIOUR

- Agrawal, Babita : Chouhan, Sunil and Sharma, Prateek (2011). "A Study of Organisational Climate in Nationalised Banks of India and its Relation to Employee Commitment ", *Vishwakarma Business Review*, 01(1),44-47.
- Ghosh, Apoorva (2011). "Power Distance in Organizational Contexts : A Review of Collectivist Cultures", *The Indian Journal of Industrial Relations*, 47(1),89-101.
- Iyer, Suryanarayan and Israel, D. (2012). "Structural Equation Modeling for Testing the Impact of Organization Communication Satisfaction on Employee Engagement", *South Asian Journal of Management*, 19(1),51-81.

- Kumar, M. and Singh, S. (2011). "Leader Member Exchange and Perceived Organizational Justice An Empirical Investigation", *The Indian Journal of Industrial Relations*, 47(2),277-289.
- Luxmi and Yadav, Vibhuti (2011). "Impact of Work Values on Organisational Commitment ", *Management and Change* 15(1-2),01-22.
- Mishra, Snigdha and Gupta, Anshul (2011). "Kaizen Culture : Enabling Organizational Change Management for Sustainable Competitive Advantage ", *Indian Journal of Training and Development*, 41(3),53-64.
- Narang, Leenu and Singh, Lakhwinder (2012). "Role of Perceived Organizational Support in the relationship between HR Practices and Organizational Trust", *Global Business Review*, 13(2),239-249.
- Sahoo, Chandan Kumar and Das, Sitaram (2011). "Employee Empowerment and Organizational Outcomes : The Strategic Integration", *Indian Journal of Training and Development*, 41(4),31-38.
- Strong, D.M. and Volkoff, O. (2010). "Understanding Organization : Enterprise System Fit : A Path to Theorizing the Information Technology Artifact ", *MIS Quarterly*, 34(4),731-756.

#### PRODUCTION MANAGEMENT

- Okoul, Saroj and Atul V. (2012). "Good as New : The Promise of Revamping in the Indian Steel Industry", *AIMS International Journal of Management*, 06(02),137-151.
- Sharma, Satyendra Kumar and Bhat, Anil (2011). "Supply Chain Risk Management : Literature Review", *AIMS International Journal of Management*, 5(2),107-130.
- Singh, Aniruddh and Das, Debadyuti (2010). "Forecasting the Passenger Traffic Movement in Lufthansa Airlines: A Supply Chain Perspective", *Journal of Services Research*, 10(2),63-77.

#### PROJECT MANAGEMENT

- Chandrasekhar, K.L. and Kothari, D.P. (2009). "Three Gorges Dam : Stochastic Perspective for the Project Planning Issues", *Management Dynamics*, 09(1),71-81.
- Nakagawa, Masahiro and Watanabe, Chihiro (2010). "A Revival of Compound Semiconductor Material Innovation : Strategic Technology Spillovers in Japans Nonferrous Metal Industry in the 2000", *Journal of Services Research*, 10(2),1-23.

#### PSYCHOLOGY

- Agarwal, Babita and Ganjiwala, Kshama (2011). "The Role of Psychological Contract in Retention Management ", *Indian Journal of Training and Development*, 41(2),60-69.
- Agarwal, P. (2011). "Relationship Between Psychological Contract and Organizational Commitment in Indian IT Industry", *The Indian Journal of Industrial Relations*, 47(2),290-305.
- Bedi, Savneet (2011). "Lateral and Longitudinal Thinking Towards Strategic Success", *Indian Journal of Training and Development*, 41(4),70-82.
- Gautam, V. (2011). "Longitudinal Thinking : An Action Perspective ", *Abhigyan*, 28(4),01-09.



Gunavathy,J.S. and Asywarya,R. (2011).“ Emotional Intelligence and Job Satisfaction as Correlates of Job Satisfaction : A Study among Women Employed in the Indian Software Industry”, **Paradigm**,**XV**,(1-2),58-65.

Iranfar,Shirin and tranfar,Khosro (2011).“ Critical Thinking Disposition in Nursing and Midwifery Students of Kermanshah University of Medical Sciences”, **Indian Journal of Training and Development**, **41**(4),13-18.

Sharma,Abhishek and Agrawal,Manisha (2011).“ Relationship between Perception of the Hospital’s Psychological Work Environment and Mental Health Status of Medical Professional”, **Indian Journal of Training and Development**, **41**(1),14-28.

Upadhyay,Divya (2011).“ Defamation : Human Resource and Psychological Perspectives in Organizations”, **Indian Journal of Training and Development**, **41**(4),59-69.

Uppal,Rachit (2011).“ Employee Engagement : Role of Emotional Intelligence in Aligning Personal Aspirations to Organizational goals”, **Indian Journal of Training and Development**, **41**(2),50-59.

#### QUALITY CONTROL

Bhat,Mushtaq Ahmad and Malik ,M.Y.(2010).“ Variation in the Quality of Medical Services : An Empirical Investigation” , **Management and Change**,**14**(2),127-144.

Varma,Ashish and Varma,Ishika (2010).“ Application of Earnings Quality Assessment Model on Infosys and TCS”, **Pragyaan**,**8**(2),28-32.

Phadtare,Milind (2011).“ Study of Quality of Service Providers in Motorised Two-Wheeler Industry ”, **Vishwakarma Business Review**,**01**(1),01-05.

#### RETAIL MARKETING

Adlakha,Amit (2011).“ Emergence of Organized Retail in India : Opportunities and Challenges for Uttarakhand ”, **Pragyaan** (9),1,01-04.

Bhattacharya,Debasis and Ray,Subrata (2011).“ Motivational Retail Sales Personnel Customer Orientations : An Empirical ”, **Indian Journal of Marketing**, **41**(8),56-67.

Bulsara,Hemantkumar and Matharu,Manita (2010).“ Retailing and Branding of Vegetables and Fruits : An Exploratory Study ”, **Pranjana**,**13**(2),60-71.

Das,Gopal (2011).“ Effect of Retail Sales Promotion on Buying Behaviour of Customers : An Empirical Study”, **Indian Journal of Marketing**,**41**(7),25-35.

Farooqi,Rahela and Rehmaan,Amaara (2010).“ A Comparison of Loyalty Programs of Two Lifestyle Retail Stores Using the Net-Promoter Score Method”, **Pranjana**,**13**(2),38-46.

Gupta,Mathala Juliet and Hiremath,Chetan V. (2011).“ Apparel Retail Outlet Selection : Influence of Service Levels in Goa ”, **Indian Journal of Marketing**, **41**(11),04-14.

Jain,R.(2011).“ Organized Retailing and its Effect on Grocery Stores with Special Reference to Kota City”, **Journal of Marketing and Communication** ,**6**(1),21-29.

Kalia,Sumedha and Kalia,Rishi (2011).“ Subhiksha : A Battle for Survival”, **Indian Journal of Marketing**,**41**(7),20-24.

Pawar,S.N. (2011).“ A Comparative Study of Organized Retailing Formats (Retail Market) in Perception of Consumer in Pune,India”, **Ethos**,**4**(1),01-09.

Pawar,Satish N. and Jagnade,M.S. (2011).“ A Study of Various Strategies Adopted by Traditional Retailers ( Unorganized ) to Compete with Organized Retailers ( Malls)”, **Ethos** **4**(2), 24-30.

Rashid,Sanuwar (2011).“ The Structured Frame of Category Management for Optimization of Retail Business ”, **Indian Journal of Marketing**,**41**(9),45-54.

Shukre,Anagha (2011).“ Youths Perceptions towards online Shopping An Empirical Study in Delhi/NCR ”, **Vishwakarma Business Review**,**01**(2),09-19.

Thomas,Sam (2013).“ Linking Customer Loyalty to Customer Satisfaction and Store Image : A Structural Model for Retail Stores”, **Decision**, **40**(1-2),15-25.

Zameer,asif and Mukherjee,Deepankar (2011).“ Food and Grocery Retail : Patronage Behaviour of Indian Urban Consumers”, **South Asian Journal of Management**,**18**(1),119-148.

#### RURAL MARKETING

Dutta,P.k.(2011).“ Agricultural Rural Marketing in India”, **Indian Journal of Marketing**,**41**(7),09-19.

Pallavi(2011).“ The ‘4 As’ of Rural Marketing Mix”, **Indian Journal of Marketing**, **41**(9),79-86.

#### STRESS MANAGEMENT

Dutta,Sonit and Saikia,Hemanta (2011).“ A Study of Stress among the Employees in NEEPCO Limited”, **Vishwakarma Business Review**,**01**(2),20-24.

Kang,Lakhwinder Singh and Sandhu,Rashpal Singh (2012).“ Impact of Stress on Health : A Study of Bank Branch Managers in India ”,**Global Business Review**,**13**(2),285-296.

Kang,L.S. and Sandhu,R.S.(2011).“ Job and Family Related Stressors among Bank Branch Managers in India”, **The Indian Journal of Industrial Relations**,”**47**(2),329-340.

Yadav,Vibhuti (2011).“Perceived Organizational Support as a Predictor of Organizational Commitment and Role Stress”, **Paradigm**,**XV**,(1-2),39-47.

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