

HR Configuration, Organisation Capital & Bottom-line

* Dr. Jyotirmayee Choudhury

Effulgence

Vol. 11 No. 1

January - June, 2013

Rukmini Devi Institute of Advanced Studies

E-mail : effulgence@rdias.ac.in, Website : www.rdias.ac.in

<http://effulgence.rdias.ac.in/user/default.aspX>

<https://dx.doi.org/10.33601/effulgence.rdias/v11/i1/2013/40-49>

Abstract

Since organizational knowledge is at the crux of sustainable competitive advantage, the burgeoning field of intellectual capital in general and organisational capital specifically is an exciting area for both researchers and practitioners. The thrust of the research work is to examine operational HR practices and procedures of Indian Software organisations. Four sets of questionnaires were designed on documentation HR practices, information technology HR practices, organisational capital and organisational performance in five point likert scale and were administered on the basis of field survey. The study found that both documentation HR configuration and information technology HR configuration are positively related to a firm's level of organisation capital which in turn adds appreciably to the organisations bottom-line.

Key Words: Documentation HR Configurations, Information Technology HR Configuration, Knowledge Sharing, Organisation Capital, Bottom-line.

INTRODUCTION

A new economy reality where knowledge is the basis of the competition has made the employees more important to the strategic success of the company. In today's economy, the value of the organisation and the individuals is also directly related to their knowledge and intellectual capital (Edvinsson and Bonfour, 2004). In the traditional economy physical assets were the prime resources whilst the most important resource today is knowledge (Starkey, 1996). Sustained competitive advantage and profitability is achieved through the creation and sharing of knowledge (Vonkrogh, Nonaka and Aben, 2001). In the traditional perspective knowledge was a formal and systematic part of a company. A more contemporary perspective represented by Nonaka sees knowledge being a highly subjective part of the individuals in the organisation. This perspective represents knowledge as a key asset and managing it is, much harder to accomplish. Even though many companies consider the 'managing of knowledge' as an important corporate resource they struggle with

exactly how to encourage and reward knowledge sharing. Improving the efficiency of knowledge work is far more complex than for traditional work and the old tools have become obsolete. Companies competing in the knowledge economy are also in need of continuous knowledge updates to be successful as knowledge as a resource does not comply with the scarcity assumption. The more knowledge is supplied (or shared), the more highly it is valued. (Nick Bontis, 2001). Managing the creation of new knowledge and shared knowledge may be equally important, and perhaps more important to understand how to leverage existing knowledge for competitive success (Kang, Morris, & Snell, 2003).

HR configurations facilitate flow of knowledge, which leads to sustainable competitive advantage (Morris, Snell & Lepak, 2005). HR is always on the front line in developing the knowledge base in the organisation (Youndt and Snell, 2004) as the people dimension plays a key role for human resource management and human resource development for effective knowledge management. HR practices have a central importance in knowledge intensive service based industries because

they have an immediate effect on the organisations' key resource, its stock of intellectual talent. With the advent of the so called knowledge society, the rhetoric of management has shifted its focus from manpower to brainpower. In an age of mind crafting, knowledge workers constitute valuable capital. Liberated from the constraints of dusty hierarchies and mechanised production lines, the employees in the knowledge society have come to be construed and empowered as knowledge creators, owners of the most strategic resource, knowledge. Hence management, measurement and control of such resources have become a source of managerial action. The idea of knowledge in the form of human capability or human resources is the key in driving organisational performance and success in modern learning organisations (Donovan A. McFarlane, 2008). People are value creators and value adders whose major contributors come from their abilities to process and apply knowledge and information to completing tasks, making decisions and solving problems (Donovan A. McFarlane, 2008). In the 21st century an organisation's process model is the key to establishing sound knowledge management practices and systems with information technology as the decisive element in managing knowledge (Kjaergaard and Kautz, 2008). The management of knowledge workers in today's organisation and society, where there are increased educational and learning opportunities, requires organisational leaders and policy planners to rethink and redefine their roles as knowledge leaders. Their duties and responsibilities now include developing a system of participative knowledge sharing with a view to solve organisational problems, accomplish mission and vision, critical tasks, and manage effectively to survive. Within the context of afore mentioned implications this study aims at probing into the HR architecture of Indian banking sector and purported that, a documentation HR configuration focused on knowledge documentation, employee work redesign, and employee suggestion system and an information technology HR configuration focused on accessible, user-friendly, and integrated information system are positively related to a firm's level of organisational capital which again is instrumental for enhancement of organisation's bottom-line.

OBJECTIVES

Objectives of the study are to examine the operational documentation HR configuration and information technology HR configuration of the Indian software companies and the idiosyncrasies created by it for enhancing organisational capital. The research thrust also proposes organisation capital as a unifying managerial construct to manage and report on intangibles and focuses on looking into the role of organisational capital on future value creation of the organisation.

LITERATURE REVIEW

The organization itself embodies structural tacit knowledge, which exists in the myriad of relationships that enable the organization to function in a coordinated manner that is reasonably understood by the participants in the relationship only and hardly by few others. This means that "the organization is accomplishing its aims by following rules that are not known as such to most of the participants in the organization" (Winter, 1987: p 171). This construct is known as organisational capital or structural capital and deals with the mechanisms and structures of the organization that can help in supporting employees to satiate their quest for optimum intellectual performance and therefore overall business performance. An individual can have high level of intellect, but if the organization has poor systems and procedures to track his or her actions, the overall intellectual capital will not reach its fullest potential.

An organization with strong organisational capital will have a supportive culture that allows individuals to try things, to fail, to learn, and to try again. In effect, without organisational capital, intellectual capital would just be human capital. This construct therefore contains elements of efficiency, transaction times, procedural innovativeness and access to information for codification into knowledge. It also supports elements of cost minimization and profit maximization per employee. The essence of organisational capital is the Knowledge embedded within the routine of an organization.

Organisational capital refers to institutionalised knowledge and codified experience stored in, systems, processes, databases, routines, patents, manuals, structures. Organisational capital is extremely important to organisations, as it is the only type of intellectual capital the organisation actually owns. This form of capital is in the nature of an enabler, as it allows the firm to hold on to knowledge as incoming employees replace those leaving. Organisational capital offers established databases and technology conduits; it allows firms the ability to better share practices across subunits within the organisations.

HR's primary responsibilities in developing organisational capital centre on creating and filling knowledge storage devices or bins. Storage bins can take many forms. For example, an organisation's physical assets such as information systems and internal libraries can hold a vast amount of knowledge in the form of patents, databases, manuals, etc. All these facilitate visible, examinable, systematic process for organisational learning. Organisational capital is also embedded in standard operating procedures, business processes, rules, routines, and informal "ways of doing business".

Any manufacturing process, whether automated or formalised in a set of procedures, is constructed from the "knowledge of individuals". In theory, this embedded knowledge is independent of those who developed it and therefore has some organisational stability. As a result of which, an individual expert can disappear without bringing the process to a halt or reducing the company's stock of embedded knowledge" (Davenport and Prusak, 1998: p. 83). The authors believe that organizations need to function as knowledge markets and market place where knowledge can be traded and transacted efficiently. In the book "Working Knowledge" Davenport and Prusak (1998: p. 5), focus on how organisation's capture and codify and transfer knowledge with a particular emphasis on knowledge sharing. They define knowledge as "a fluid mix of framed experience, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knower. In organizations it often becomes embedded not only

documents or repositories but also in organizational routines, process, practices and norms".

Penrose (1959) has described an organisation as a "knowledge repository". She pointed out the importance of experience and knowledge accumulated within the firm. Evolution theorists (Nelson and Winter, 1982) also viewed the firm as a repository of knowledge. According to Nelson and winter, knowledge is stored as regular and predictable behavioural patterns or "routines". At the crux of Nelson and winter's (1982) evolutionary theory are organizational routines that allow firms the special context in which tacit and explicit knowledge interact. Organizational routines are the organization's genetic material, some explicit in bureaucratic rules, some implicit in the organization's culture. The interaction between the explicit and the tacit is evolutionary in that the choices made by individuals are selected in or out according to their utility in a specific historical and economic reality, and eventually embedded in organizational routines which then shape and constrain further individual choices. This theory lacks the contextual implications of changing business environment. It may be true that organizational knowledge is embedded in routines, but evolutionary theory does not describe persistence or change of routines over time. For example, if explicit rules have been codified at one point in time, one can argue that these routines may not be appropriate at some later point in time when environmental conditions have forced an alternative strategic orientation. Pushing this notion forward, it is argued that organizational routines represent a collection of embedded rules from different times representing different environmental contexts.

Institutionalising Organisational Capital (Doc- HRC)

Codification and documentation of knowledge may refer to representation of knowledge and may go back to the scientific management age. Fredric Taylor (1911) attempted to formalise workers' experiences and tacit skills into objective rules and formulae. Barnard (1938) extended scientific management by also considering "behavioural knowledge" in management processes. Synthesizing the above two perspectives, Simon (1945) was influenced by the development of the computer and

cognitive science and its nature in the process of decision making while performing administrative functions.

It is stated that, “knowledge Documentation helps individuals internalise what they experienced, thus enhancing tacit knowledge” (Nonaka and Takeuchi, 1995: p. 8). They also suggested that the productivity of new knowledge involves “a process that organizationally amplifies the knowledge created by individuals and crystallizes it as a part of the knowledge network of the organization” (Nonaka and Takeuchi, 1995: p. 59). According to them documentation or manuals facilitate the transfer of explicit knowledge to other people, thereby helping them indirectly as a result of the experiences of others. Schulz (2001) found that higher the level of codification of the domain of knowledge, the stronger the horizontal and vertical out flow of knowledge. Institutionalising knowledge in databases, manuals, and standard operating procedures most likely requires HR’s involvement in knowledge codification. For example, encouraging employees to write, “Lessons learned” reports after learning experiences like sabbaticals, employee exchange programs, projects etc, facilitate the development of organisational capital. Likewise, encouraging employees to continuously update electronic resumes, knowledge “yellow pages” and other knowledge-mapping devices, as well as supporting the formal documentation of customer suggestions, complaints, preferences, etc, are also likely to help build better organisational capital.

Beyond these methods for codifying explicit knowledge, HR systems can also play a role in helping to institutionalise tacit knowledge that is more informal and difficult to articulate. For example, empowering employees to initiate the redesign of their work may be a useful method for capturing organisational capital. As employees redesign work systems and structures, their knowledge can become institutionalised in organisational routines, procedures, and the like. Similarly, employee suggestion systems may help expose the entire organisation to individual knowledge. Hence the hypothesis formulated is:

Hypothesis 1: A documentation HR configuration (DOC-HRC) focused on knowledge documentation,

employee work redesign, and employee suggestion system is positively related to a firm’s level of organisational capital (OC).

Interfacing with Organisational Capital (IT- HRC)

It is very difficult to develop high levels of organisational capital without creating or providing an underlying infrastructure that supports knowledge management and codification. In today’s world, such an infrastructure inevitably revolves around information technology. The information age has forced organisations to see knowledge as an asset and hence the importance of Information Technology. Business processes became increasingly enabled by large-scale information systems. Information system designers attempted to capture employees’ implicit and explicit knowledge in corporate memory by means of intranet and other similar applications (Malhotra, 2000). Again increasing global interdependencies and the accelerating pace of change demand more flexible and adaptive organisations (Malone and Crowston 1994). Adoptive and dynamic organisations can only possible with the help of information technology. Development of Information Communication Technology (ICT) such as World Wide Web, electronic data interchange and electronic mail can be seen as enablers to cross organizational boundaries more easily when dealing with information intensive process. Information Technology is the primary element that organisations use to anticipate, react, and respond to environmental change and to align their structure with the changed environment. The most spectacular and potentially powerful uses of information systems technology is that they go beyond the individual borders of the enterprise. Information Communication Technology (ICT) brings inter-organisational co-ordination and has the potential to change co-ordination structure, hence it is considered as a driving force in changing co-ordination of emerging business trend and globalisation.

Rockart and Short (1989) argue that, the most important function of information technology is better management of interdependencies among enterprises. Davenport and Short (1990: p. 12), state that “information technology has to be the most powerful

instrument to reduce the coordination cost". Hammer (1990: p. 108), stated that "the power of technology should be used for radically redesigning the business processes and achieving important improvements in the results". As pointed out by Mintzberg (1979), Information technology increases the organic characteristics of organisations to sustain them in turbulent environment. He goes on to say "Information technology automation at the 'operating core' level transforms a bureaucratic administrative structure into an organic one" (Mintzberg, 1979: p. 265).

Simply put, information technology has now become the corner stone of knowledge documentation and codification process in many of our successful organisations. As Stewart (1997: p. 113) noted, the emergence of these technologies has spawned "ambitious attempts to pull scattered information and wisdom together to convert it into organisational knowledge. Cheap and powerful information technology has given new impetus to the dream of creating what amount to living libraries containing an entire stock of corporate knowledge".

As Drucker, (1985) has very rightly defined organisation as a structure in which information serves as the axis and the central structural support. Information technology helps the organisation in responding to the challenges of an increasingly complex and uncertain environment, making the organisation structure flexible. Information technology is increasingly becoming an integral component of all types of technologies craft, engineering, routine and non-routine that helps the organisation to transmit, manipulate, analyse or exploit information.

Such information systems tend to be catalysts for developing organisational capital because they are easily accessible, provide a user-friendly interface, and bring together what were once disparate knowledge repositories into an integrated whole. An organisation can encourage employees to document their knowledge, skills, and expertise, but unless they use information technology to make the process somewhat effortless and seamless, knowledge documentation initiatives will most likely have limited success. The main objective is to

maximise communication within the company. A successful business is to have excellent communication structure in order to get to the employee the information necessary to do the job.

The business landscape is evolving from the 'war of position' to 'war of capabilities' involving a mix of top-down intellectual capital management as well as bottom-up self organising system. Information Technology, facilitates the standardisation of co-ordination (Malone and Crowston, 1991), accelerates larger spans of control on work units which would be characterised by extensive lateral communications and self contained authority structures (Mintzberg, 1979). Therefore the proposed Hypothesis is:

Hypothesis 2: - An Information Technology HR configuration (IT-HRC) focused on accessible, user-friendly, and integrated information system is positively related to a firm's level of organisational capital (OC).

Organisational Capital & Performance

Organisational capital can play a significant role in reducing organisational costs. According to Dixon (1994) those cost reductions result from three primary forces. First, when failure leads to learning it can be the ultimate teacher. Thus, institutionalised experience and knowledge (organisational capital) can prevent organisations from repeating mistakes, thereby reducing their operating costs. Second, organisational capital can be retrieved and brought to bear on new situations. Whether this institutionalised knowledge is used "wholesale" in its current form, or transferred to meet existing needs, it should help reduce costs by eliminating the need to "reinvent the wheel". Lastly, organisational capital embedded in routines, procedures, information systems, can help filter information as well as direct and simplify information processing and organisational sense making, all of which should diminish organisational costs.

The three forces (minimising repeat mistakes, increasing knowledge utilisation, and facilitating better information processing/sense making) that enable organisational capital to reduce costs also help organisations extend

customer benefits. For example, minimising mistakes helps organisations increase their speed to market with new products and services. Likewise, when stored knowledge can be accessed by those organisational members directly in contact with customers, they can use their entire company's knowledge-base to quickly and accurately address customer issues.

Additionally, storing important customer information in organisational memory devices enables companies to better keep track of their customers' preferences, needs, behaviours, etc, thereby increasing customer alignment and, hopefully, customer benefits and satisfaction. Many service organisations such as Jiffy Lube, keep detailed customer records to provide quick service. In short, organisational capital can assist organisations in giving customers what they want, when they want it, and how they want it. It is therefore, rightly indicated by information technology theorist that the latest change in information technology would lead to evolution of new technology intensive organisational structures. As a result of which there would be dramatic decline in the costs of co-ordination.

The role of organisational capital is to link the resources of the organisation together into processes that create value for customers and sustainable competitive advantage for the firm (Dess and Picken, 1999: P. 11). This will include:

- Organisational and reporting structures
- Operating systems, processes, procedures and task designs
- Information and communication infrastructures
- Resource acquisition, development and allocation systems
- Decision processes and information flows
- Incentives, controls and performance measurement systems
- Organisational culture, value and leadership

The interactions between these dimensions are important if employees have the motivation to develop and use their skills and knowledge. The culture of the organisation has a large impact on both recruitment and retention as well as in the area of generating

commitment. In Mckinsey's war for talent survey (1999), it was found that people valued the most in the organisations were strong values and culture. A supportive culture with strong corporate purpose and compelling values has been the underlying reason for major corporate success (Peters and Waterman 1982; Collins and Porras: 1994).

Another major influence on human capital is the incentive structure and how performance is measured and managed in general. Differentiated reward system, and clear positive appraisal linked to incentives, can link directly to firm performance. In terms of organisational structure, 'the degree that skilled and motivated employees are directly involved in determining what work is performed and how this work gets accomplished' is crucial (Delaney and Huselid, 1996: p.950).

Employee participation (Wilson & Wagner, 1994), internal career ladders (Osterman, 1987) and team based working (Levine et al., 1996) have all been shown to positively linked to organisational performance (Delaney and Huselid, 1996). According to Rumelt (1984), the routines and processes that act as the glue for the organisations can either enhance or disable co-operative working and the development of knowledge. This is ultimately the simple point that organisational structure and processes must support the purpose of the organisation without creating boundaries between individuals and group. From the above literature the following Hypothesis is drawn.

Hypothesis 3: An organisation's level of organisational capital (OC) is positively related to organisational performance (OP).

RESEARCH METHODOLOGY

The present research work primarily relies on field survey method. Three set of questionnaires were designed on HR Configuration, Organisational Capital and Organisational Performance and administered to the Top management team of the specific organisation under study chosen randomly and measured in a five point likert scale. The collected data were analysed with the

help of SPSS to study the interconnectivity between the above constructs.

Top management team of various Indian IT companies engaged in software business and located in and around Bhubaneswar, ORISSA was the target group of the study. Top management team (TMT) refers to all those who are decision makers and event makers in the organisation. This includes the owners, board of directors, departmental heads, delivery manager, unit heads and project heads too. Participants were contacted personally as well as via an e-mail. Follow up requests to complete the online survey were e-mailed two weeks later. 126 respondents completed the survey process and returned the questionnaires back. Respondents ranged in age from 21 to 45, 26% were female and 73% were male. 44 % of the respondents have on an average 10 years experience in the industry and 56% possess more than 10 years experience.

RESULTS

Documentation HR configuration was quoted from Youndt et al. (2004) and coded 1= strongly disagree, 5= strongly agree. The items included are, we encourage employees to write "lessons learned" report after learning experiences and we encourage our employees to continuously update our company's knowledge database. This measure has Cronbach's alpha of 0.71.

IT - HR configuration was also quoted from Youndt et al. (2004) and coded 1= strongly disagree, 5= strongly agree. The items included are our information system is user friendly and easy to access and our information system is accessible to all our employees. This measure has Cronbach's alpha of 0.72.

For the present study, items to measure organisational capital were quoted from Youndt et al. (2004) study and comprises of six variables. The items too coded as 1= strongly disagree, 5=strongly agree. The items taken into account are, much of our organisation's knowledge is contained in manuals, and databases and our organisation embeds much of its knowledge and information in structures, systems and processes etc. This measure has Cronbach's alpha of 0.69.

The definition of firm performance could vary from one and another. In some cases financial performance measures such as percentage of sales resulting from new products, profitability, capital employed and return on assets (ROA) (Selvarajan et al., 2007). Besides, return on investment (ROI), earnings per share (EPS) and net income after tax (NIAT) can also be used as measures of financial performance (Grossman, 2000). Interestingly, researchers also tend to benchmark managerial accounting indicators against the financial measures in six dimensions; 'workers compensation' (workers' compensation expenses divided by sales); 'quality' (number of errors in production); 'shrinkage' (e.g. inventory loss, defects, sales return); 'productivity' (payroll expenses divided by output); 'operating expenses' (total operating expenses divided by sales) (Wright et al., 2005).

On the other hand, firm performance can also be measured using 'perceived performance approach' (also referred to as subjective performance measure) where Likert-like scaling is used to measure firm performance from the top management perspectives (Selvarajan, 2007). The primary reason is that some of them are leading indicators of financial performance (Kaplan & Norton 1992, 2001). In the present study the construct organisation performance comprises of twenty six items, under the domain of customer service, quality, productivity and innovation. The items were coded 1= strongly disagree, 5= strongly agree. The questionnaire was designed from the balance scorecard literature of Kaplan & Norton (1992) from three perspectives under the domain of customer, internal process and innovation and learning. The items incorporated are, we protect our consumers' interest and our R and D intensity is fair enough. This measure has Cronbach's alpha of 0.76.

All variables used in the study exhibited normal distributions. The descriptive statistics with mean, standard deviation and co-relations are shown below.

Simple regression analysis was conducted to investigate the relationship between both the HR configuration with that of organisational capital and organisational performance with the help of SPSS controlling size of the organisation.

Co-relation and descriptive statistics of the study variables

Variables	Mean	SD	1	2	3	4
1. Doc- HR configuration	3.51	0.52	-			
2. IT- HR configuration	3.61	0.58	0.402	-		
3. Organisational capital	3.77	0.41	0.406	0.552	-	
4. Organisational performance	3.68	0.55	.888	0.577	0.572	-

N=126 p< 0.01

It was found that, both documentation HR configuration (Beta = .255, p< .05) and IT-HR configuration (Beta = .264, p< .05) was significantly related to organisational capital corroborating Hypothesis 1 and 2. Similarly organisational capital (Beta = .386, p < .05) too was significantly related to organisation performance providing support to Hypothesis 3. There is existence of substantial interconnectivity between all the three constructs under study, one influencing the others in an organisation set up irrespective of the size of the organisation.

CONTRIBUTION AND FUTURE DIRECTION OF THE STUDY

The study can propel other organisations in India and abroad as well to understand the importance of organisational capital which is a significant source of firms' value in information, communication era. As a result of which they may work upon and invest more on their organisational capital and translate more of their human capital to organisational capital since the organisational capital is the only capital that is owned by the organisations.

DISCUSSION AND CONCLUSION

Organisational capital is the critical link that allows intellectual capital to be measured at an organizational level. Organisational capital is relatively under explored but seemingly highly valued in global capital markets. Organisation capital establishes the foundation for business stability. Key to the fundamental structure of the organisational capital is the process that transfers data to information to business intelligence or value added information and continues to support the

creation, transfer, use and reuse of the knowledge base. This capital deals directly with the baseline of the business, such as its processes to establish credible knowledge repositories. Human capital on its own does not create value. It needs organisational capital as support in order to deliver outcomes. Human and organisational capital interacts with each other to create value in an organisation. Therefore, the only way to utilise the intellectual capital within the organisation is to transform as much as human capital as possible into organisational capital.

The value of an organisation's capital, widely considered to comprise its knowledge and intangible assets, is increasingly recognised in relation to its realised and potential contribution to competitive advantage. The organisations under consideration are having systematized, packaged and codified competencies as well as proper systems for leveraging that capability. They invest in systems, operational philosophy, and suppliers and distribution channel so as to strengthen their organisation capital. The increasing use of information technology of the organisations has led to automation of more and more repetitive tasks resulting in economies of scale which are major sources of competitive advantage. Organisational capital helps in competence building and competence development too by relying upon the complex interaction of supporting resources and capabilities as well as the integration of individual and organisation level knowledge that underpins them. That is how the company's knowledge management process is institutionalising knowledge and converting human capital – which is usually available to just a few people – into organisation capital to make it shareable.

REFERENCES

1. Barnard, C. (1938). *The Functions of the Executive*. Cambridge: Harvard University Press.
2. Bontis, N. (2001). "Review of Organizational Learning by Schwandt and Marquardt", *Management Learning*, Vol. 32, No. 2, pp: 274-277.
3. Collins, C. J. and Porras, I. J. (1994). *Built to last: Successful habits of visionary companies*. New York: Harper Business.
4. Davenport, T. H., and Prusak, L. (1998). *Working Knowledge: How Organizations Manage What They Know*. Cambridge, MA: Harvard Business School Press.
5. Davenport, T. H. & Short, J. E. (1990). "The New Industrial Engineering: Information Technology and Business Process Redesign," *Sloan Management Review*, Vol. 31, No. 1, pp: 11-27.
6. Delaney, J. T., & Huselid, M. A. (1996). The impact of human resource management practices on performance in for-profit and non-profit organizations; *Academy of Management Journal*, Vol. 39, No. 1, pp: 949-969.
7. Dess, G. G. and Joseph, P. C. (1999). *Beyond Productivity: How Leading Companies Achieve Superior Performance by Leveraging Their Human Capital*. New York: AMACOM Books.
8. Dixon, N. M. (1994). *The organizational learning cycle: How we can learn collectively*, New York: McGraw-Hill.
9. Drucker, P. F. (1985). *Innovation and Entrepreneurship, Practice and Principles*, Harpercollins Publishers, New work, NY, USA.
10. Edvinson, L. & Bounfour, A. (2004). Assessing National and regional value creation. *Measuring business excellence*, Vol. 8, No.1, pp: 55-61.
11. Henry, M. (1979). *The structuring of organizations: A synthesis of the research*, Prentice-Hall.
12. Ichniowski, C., Kochan, T.A., Levine, D., Olson, C. & Strauss, G. (1996). 'What Works at Work: Overview and Assessment.' *Industrial Relations*, Vol.35, No.3, pp: 299-333.
13. Ikujiro, N. & Hirotaka, T. (1995), *The knowledge creating company: how Japanese companies create the dynamics of innovation*, New York: Oxford University Press.
14. Kang, S., Morris, S. S. & Snell, S. A. (2003). *Relational archetypes, organizational learning, and value creation: Extending the human resource architecture*. Working paper: CAHRS, Cornell University.
15. Kaplan, R. S. and Norton, D. P. (1992). "The balanced scorecard: measures that drive performance", *Harvard Business Review* Jan - Feb: pp. 71-80.
16. Kaplan, R. S. and Norton, D. P. (2001). *The strategy focused organization*, Harvard Business Press.
17. Kevin, C. & Malone, W. T. (1994). *Interdisciplinary Study of Coordination ACM Computer surveys*, Vol. 26, No. 1, pp: 87-119.
18. Kjaergaard, A. & Kautz, K. (2008). A process model of establishing knowledge management: Insights from a longitudinal field study. *Omega*, Oxford, Vol. 36, No.2, pp: 282-297.
19. Malhotra, Y. (2000). Knowledge Assets in the Global Economy : Assessment of National Intellectual Capital, *Journal of Global Information Management*, July-Sep, Vol.8, No.3, pp:5-15.
20. Malone, T. W. & Crowston, K. G. (1991). *Toward an interdisciplinary theory of coordination*. Tech. Rep. No. 120. MIT, Center for Coordination Science, Cambridge, Mass.
21. McFarlane, D. A. (2008). Organizational training programs (OTPs) as long-term value investments (LVIs): Evaluation criteria, considerations, and change. *Leadership & Organizational Management Journal*, Vol. 2008, Issue 1, pp: 38-53.
22. Michael, H. (1990). *Reengineering Work: Don't Automate, Obliterate*, Harvard Business Review, Vol.68, No.4, pp: 104-112.
23. Morris, S., Snell, S. A. & Lepak, D. (2005). *An Architectural Approach to Managing Knowledge Stocks and Flows: Implications for Reinventing the HR Function*, Working Paper Series # 283.
24. Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change*. Cambridge, Mass.: Belknap Press of Harvard University Press.
25. Osterman, P. (1987). 'Choice of Employment Systems in Internal Labor Markets.' *Industrial Relations*, Vol. 26, No. 1, pp:46-67.
26. Penrose, E. T. (1959). *The Theory of the Growth of*

- the Firm. Oxford University Press: New York.
27. Peters, T., and Waterman, R. (1982). *In Search of Excellence: Lessons from America's Best Run Companies*. New York: Harper and Row.
 28. Rockart, F. J., and James, S. E. (1989). IT in the 1990s: Managing Organizational Interdependence, *Sloan Management Review*, Vol. 30, No.2, pp: 7-17.
 29. Rumelt, D. P. (1984). Towards a Strategic Theory of the Firm. *Alternative theories of the firm; International Library of Critical Writings in Economics*, Vol. 154, No.2, pp: 286-300.
 30. Schulz, M. & Jobe, L. A. (2001). Knowledge Management -International Business Enterprises; *Journal of High Technology Management Research*, Vol.12, No.1, pp: 181-190.
 31. Selvarajan, T. , Ramamoorthy, N. , Flood, P. C. , Guthrie, J. P. & MacCurtain, S. (2007). The Role of Human Capital Philosophy in Promoting Firm Innovativeness and Performance: Test of a Causal Model. *International Journal of Human Resource Management*, Vol.18, No.8, pp: 1455-1469.
 32. Simon, H. A. (1945). *Administrative Behaviour*; The Free Press.
 33. Stewart, T. (1997). 'Intellectual Capital: The New Wealth of Organisations', Doubleday Business, New Work, USA.
 34. Vonkrogh, G., Nonaka, I. & Aben, M. (2001). Making the most of your company's knowledge: A strategic framework long range planning Vol. 1, No. 34, pp: 421-439.
 35. Wilson, H. J. & Wagner J. A. (1994). Participation effort on Performance and Satisfaction: A reconsideration of research evidence. *Academy of Management Review* Vol. 19, No. 1, pp: 312-330.
 36. Winter, S. G. (1987). knowledge and competence as Strategic Assets. *The competitive challenge: strategies of industrial innovation and renewal*. David J. Teece (Eds.), Cambridge, MA: Ballinger Publishing Company. Vol 1, No 1, pp: 159-184.
 37. Wright, P. M., Gardner, L. M., Moynihan, L. M., & Allen, M. R. (2005). The relationship between human resource practices and firm performance: Examining causal order. *Personnel Psychology*, 58, PP: 409-446.
 38. Youndt, M. A., and Snell, S. A. (2004). Human Resource Configurations, Intellectual Capital, and Organizational Performance, *Journal of Managerial Issues*, Vol.16, No.3, pp: 337 - 361.
 39. [Http://autoassembly.mckinsey.com/html/Downloads/articles/War_For_Talent.pdf](http://autoassembly.mckinsey.com/html/Downloads/articles/War_For_Talent.pdf)