

Knowledge Management and Competitive Advantages: The new Challenge for African Firms? A Review of Empirical Literature.

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ABSTRACT: Faced with such increasing complexity, market volatility and accelerated responsiveness requiring new knowledge, many African firms are less adequate and prepared to make tough business decisions required for sustainable competitive advantage. Today's business challenges in many firms demand a new kind of learning experience, one that goes beyond problem solving and instead should focus on imagining possibilities, opportunities and creating innovative ways of looking at the dynamically turbulent world. Competing for the future requires leveraging knowledge management (KM) in order to gain competitive advantages. Competing successfully for the future in a globalised world requires that African firms either align their strategies to what they know or they learn to manage knowledge by building capabilities needed to support desired strategies. Knowledge management in Africa must cater to the critical issues of firm adaptation, survival and competence in the face of increasingly discontinuous environmental change. The paper critically surveys empirical literature on knowledge management, a catalyst for human capital development, technological diffusion and economic growth. The paper recommends that in order to remain aligned with the dynamically changing needs of the global business environment, African firms must increasingly gather and leverage technological knowledge assets better than foreign multinational firms.

Keywords: Information technology, Knowledge management, Competitive advantages, African firms

I. INTRODUCTION AND BACKGROUND

In the landscape of modern business environment characterised by macroeconomic instability, uncertainties, chaos and turbulence, African firms are persistently endeavouring to create mechanisms for differentiating themselves from global competitors within given markets. In order to increase productivity through technological progress, markets in many African countries are inundated with numerous firms striving towards like core competencies. Therefore, most firms are being coerced to dichotomise their business processes, adapt to newer technological innovations in order to achieve inimitable sources of sustainable competitive advantage. Prompted by the rapid and pervasive spreading of the knowledge economy, business management researchers are just beginning to think of KM as economic goods in their own right and not simply as an enhancement of other kinds of assets (Jackson, 2001). According to Barney, (1991, 1997) the imperatives of knowledge management are transformation of organisational knowledge in order to add value to the processes and operations of the business, leverage knowledge strategic to business in order to accelerate growth and technological innovation and to use tacit and explicit knowledge to provide a competitive advantage for the firm.

Before the advent of globalisation, business environments in many African countries were to a large extent characterised by predictability and constancy. This enabled decision makers to easily make rationally planned decisions over long horizon. However, economic mismanagement by some corrupt leaders brought about challenges of abject poverty, high business risks, weak foreign direct investment, low industrial productivity, high unemployment and lethargic economic growth. This meant that traditional strategic management theories became redundant and mismatched to counter the effects of the macroeconomic instability characterised by business turbulence and volatility. Globalisation ushered in advancements in the field of information and communication technologies. Globalisation also accelerated knowledge growth, facilitated knowledge discovery and sharing and permitted movement of information at high speeds and efficiencies. Highly skilled knowledge workers in services sector are replacing industrial and agricultural workers as the dominant labour group in most African countries.

Unlike in the past, new product development in service sectors now require the partnership of inter-organisational teams representing various functional subunits ranging from finance, marketing, engineering and environmentalist. Faced with such increasing complexity, market volatility and accelerated responsiveness requiring new knowledge, many African firms are less adequate and prepared to make tough business decisions required for sustainable competitive advantage in a globalised world. According to Bernhardt (2002), traditional factors of production such as land, capital and labour no longer provide a strong basis for obtaining competitive advantage in globalised knowledge driven economy. The dynamic and turbulent macro-environment has marshalled in a new knowledge paradigm which requires firms to continually improve by rapidly creating, refining the capabilities required for future success and looking for new differentiation and drivers of bottom line performance as key sources of competitive advantage. In addition high employee turnover rates due to economic instability, wars and civil unrests have resulted in individuals with decision-making authority having less tenure within their firms than ever before. This is creating a great disadvantages when making mission-critical business decisions in competitive markets as replacements are likely to have immature intuition. Globalisation, increasing market dynamics and shorter product development and life cycle times often require an increased adaptability of companies to dynamic business environment and experienced human capital.

The complexity of the underlying knowledge domains is increasing and as a consequence, the complexity of knowledge that is required to complete a specific business process task has increased as well (Choundhury and Sampler, 1997). Intricacy of internal and external production processes, escalating competition, and rapid advancement of technology all are contributing to increasing knowledge domain complexity. The rapid advance in communication technology is persistently changing the decision making landscape, making it imperative that business decisions be made and implemented quickly, lest the windows of opportunities closes (Cappel *et al* 1995).

Instead of revamping their value chain most firms operating in Africa are becoming import dependent on goods manufactured in foreign markets. The problem is that despite knowledge management arguably becoming an increasingly important discipline in modern researches that promotes the creation, sharing and leveraging of knowledge in order to achieve sustainable competitive advantages, most African firms still depend on traditional management theories where land, labour and capital are major production assets. A failure to properly conceptualize the nature of evolving competition in the global knowledge arena is condemning many firms and, indeed, African economies to fight tomorrow's competitive battles with yesterday outdated weapons and tactics. The study seeks to answer the following question: How can African firms achieve competitive advantages through strategic knowledge management like their counterparts in the developed world? The research is significant given that demand for knowledge-based products and services are changing the structure of the global economy. Notwithstanding the knowledge management revolution after the new millennium that has been gathering momentum elsewhere, the vast majority of firms in Africa remain firmly ensconced in the paradigm of the traditional economy where land and capital reigns supreme. One reason for this inertia is that traditional based economy is still much easier to observe and measure than knowledge ones. Managers and policy-makers are vaguely aware that strategic knowledge management is a good thing, but they find it difficult to delineate information from knowledge (McCune, 1999). Knowledge management is largely a new concept in Africa that has been brought about by the information age; as a result, it is not yet common and mainstreamed in human capital training schedules. According to McCune (1999), employee know-how and innovative capabilities play a predominant role in defining the productive power of the firm and account for an increasing proportion of the capital in traditional industries. In developed countries accumulation, transformation and valuation of knowledge management lie at the heart of intellectual capital management in most technology and service industries.

II. LITERATURE REVIEW

Defining knowledge management is especially difficult, as different perspectives or schools of knowledge management can yield different dimensions and meaning (Salleh and Goh, 2002). For example, management information systems researchers and practitioners tend to define knowledge management as an object that can be recognized and controlled in computer-based information systems (Wild, Griggs, and Downing, 2002; Walther, 1996). According to Salleh and Goh's (2002), KM is defined as a process of leveraging knowledge as means of achieving innovation in process and products/services.

Therefore, KM enables effective decision-making, organisational adaptation to the market, creation of business value and hence generating business competitive advantage. Management researchers, on the other hand, address knowledge management as processes based on individual and organizational competencies such as skills and know-how (Davenport & Prusak, 1998; Nonaka & Takeuchi, 1995; Sveiby, 1997; Winter, 1998). As illustrated by Sveiby (1997), the concept of knowledge management is closely associated with intellectual capital theory in that it refers to the notions of human, social and organisational or structural capital.

Macmillan (1989) differs and sees knowledge management as linked to the concepts of organisational learning. According to Senge (1990), learning firms are firms where people continually expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together. Fernandez *et al* (2009) classified knowledge into two broad classes which are the subjective and objective views. The subjective view represents knowledge as a state of mind or as practice and on the other hand, the objective view represents knowledge in three possible perspectives; as an object, as an access to information or as a capability. Nonaka (1994) and Polanyi (1966) in contrast classify knowledge into two broad categories, tacit and explicit knowledge. Explicit knowledge typically refers to knowledge that has been expressed into words and numbers which can be shared in the form of data, specifications, manuals, drawings, audios, videos, computer programs, patents and the like. Whereas tacit knowledge includes insights, intuitions and hunches (Kierman, 1993) and thus tacit knowledge is difficult to express and formalise and therefore difficult to share (Cross, Parker and Borgatti 2002).

According to Drucker (1994 pp 66-96) *“Knowledge has become the key resource, for a nation’s military strength as well as for its economic strength.....is fundamentally different from the traditional key resources of the economist-land, labour and even capital...we need systematic work on quality of knowledge and the productivity of knowledge...the performance of capacity, if not survival, of any organisation in the knowledge society will come increasingly to depend on those two factors”*. Grant (1991); Trussler (1998) and Zander *et al.*, (1995) observe that the capability to gather, lever, and use knowledge effectively will become a major source of competitive advantage in many businesses over the next few years’.

KM is essential for firms in that it determines where they are going and is critical for organizational survival in the long run, especially given that knowledge creation is the core competency of any firms (Leonard-Barton, 1995). KM is a key requirement to future successful enterprises and is rapidly being recognized by firms to be of major long term strategic importance (Dyer, 2000). Knowledge management success factors are fundamental links to economic performance and growth. According to (Davenport *et al.*, (1998) key success factors for knowledge management include technical and organizational infrastructure; a standard and flexible knowledge structure; knowledge-friendly culture; a clear purpose and language; a change in motivational practices; multiple channels for knowledge transfer and senior management support. Information technology tools such as document management systems, groupware, email, database and workflow management systems which historically were used for singular unrelated purposes are now typically integrated into strategic knowledge sharing systems (Dyer and McDonough, 2001).

The main function of a knowledge sharing system is to enhance the firm’s competitiveness by improving the way it manages its strategic knowledge, to decrease new employee’s learning curve (Abecker,1998), enabling the organisation to respond faster to customer needs and inquiries (Quinn, Anderson, and Fienkelstein , 1996) and prevention of wheel reinvention (Neuweg, 1999). Managing knowledge flow is an essential step in moving the asset of quiescent knowledge into actualization (Fahey and Prusak, 1998). With efficient dissemination of strategic knowledge, the company’s ability to make impacting decisions increases dramatically, because individuals throughout the firm gain access to important strategic ideas, rather than merely retaining this knowledge within the ranks of high-level management (Gupta, Lakshmi, and Iyer, 2000). In knowledge intensive firms, competitive advantage and product success are a result of collaborative and ongoing learning (Cappel *et al* 1995). Successful KM depends not only on how effectually the diverse individuals in firms are able to organize and develop their unique knowledge competences, but also how they can integrate and utilize their distinctive knowledge both effectively and synergistically (Dougherty, 1992; Nonaka, 1994). Choi (1998) advises that systematically mapping, categorizing and benchmarking organizational knowledge not only can help make knowledge more accessible throughout an organization, but by using a strategic knowledge map to prioritize and focus its learning experiences, an organization can create greater leverage for its learning efforts.

In internationally present companies it is especially important to successfully leverage new electronic media in order to deal with the demands of international intra-organisational communication (Quan-Haase *et al*, 2005; Walther 1996; Galetta *et al*, 2006). These demands include, amongst others, time differences across international offices, neglect of bottom-up and horizontal communication and the support of top-down communication as well as decreased motivation for employees to take part in communication processes (Hanneman, and Riddle, 2005). Pfeiffer & Sutton (2000) argue that competitive advantage goes not to those firms who have the best knowledge, but to those who use knowledge best.

Argote *et al* (2000) avers that decision makers are less likely to understand the nuances of domain inputs due to the complexity in specific domains and their own tenure within an organisation. When facing external competitive pressures such as shortening product development cycle, brand invisibility and declining profitability, the need to respond is more urgent.

This is because the need for swiftness in implementing an action after a decision has been made allows little market tolerance for wrong or unclear decision responses (Hanneman, and Riddle, 2005).

The firm's advantage will come from being able to absorb external knowledge and integrate it with their internal knowledge to develop new insights faster than the competition (Barney, 1997). Nonaka and Takeuchi (1995), say that a knowledge organisation is defined by its capacity to adapt to the changing environment by creating new knowledge, disseminating it effectively and putting this knowledge into practice. Stewart (1997) affirms that knowledge management enables firms to act effectively in the present and also being capable of dealing effectively with the challenges of the future. According to Ford et al (1996), KM is facilitated by the organisation's information technology infrastructure through development of databases, data warehouses as well as enterprise resource planning systems. Daft and Lengel (1986) and Evans and Wurster (1999) agree and state that rapid advances in information technology have significantly enhanced the ability to store and quickly process information by aggregating large volumes of information drawn from multiple source. One of the most important implications of the changes posed by the knowledge-based economy is the expansion of resources and products that are globally tradable, highlighting the importance of knowledge as the key economic resource of lasting competitive advantage (Teece 1998).

Indeed, in the developed world the academic literature on knowledge management as a source of competitive advantage has been expanding in unprecedented fashion. For example, Teece *et al.* (1997) have proposed a 'dynamic capabilities' approach to firm-level advantage suggesting that a firm's ability to continually learn, adapt, and upgrade its capabilities is key to competitive success. Other scholars have argued for a 'knowledge-based view of the firm' suggesting that the key role successful firms is in creating, storing, and applying knowledge (Kogut and Zander, 1992). According to Nonaka (1994), the information age and the changes created by it have shifted firms away from being short-sightedly concerned with the exploitation of tangible assets towards a steadfast and holistic interest in leveraging intangible assets like KM as well.

Nonaka further states that the management of information as a key to grasping and retaining competitive advantage has recently evolved into the more strategically focused management of knowledge. Friedman *et al.*, (1997), Quinn (1992), and Stewart (1997), pointed out that knowledge management enables an organization to act effectively in the present and also being capable of dealing effectively with the challenges of the future. As postulated by Sveiby, (1997), due to the increasing importance of knowledge management, the '*industry paradigm*', which dominated business in the past, is being replaced by the '*knowledge paradigm*'. Knowledge management enables growth of a learning firms which are skilled at creating, acquiring and transferring knowledge and at modifying its behaviour to reflect new knowledge and insights (Axelrod and Cohen 1999). Therefore looking for new differentiation and drivers of bottom line performance, firms must recognise the relevance of knowledge assets as key sources of competitive advantage (Sveiby, 1997).

One of the most important implications of the changes posed by the knowledge-based economy is the expansion of resources and products that are globally tradable, highlighting the importance of knowledge as the key economic resource of lasting competitive advantage (Teece 1998; Nonaka and Takeuchi 1995; Drucker, 1985). Competing successfully on knowledge requires either aligning strategy to what the firm know, or developing the knowledge and capabilities needed to support a desired strategy (Nonaka, 1991; 1994). The concept of knowledge management concerns the creation of structures that combine the most advanced elements of technological resources and the indispensable input of human response and decision-making (Raisinghani, 2000). Benefits of knowledge management include leveraging of core business competencies, accelerating innovation and time to market, improving cycle times and decision making, strengthening organisational commitment, and building sustainable competitive advantages (Zander and Kogut, 1995).

Knowledge management strategies aim to capture an organisation's collective expertise and distribute it wherever it can achieve the biggest payoff (Blacke, 1988). This is in accordance with the resource based view of the firm which, as argued by Grant (1991), suggests that the source of competitive advantage lies within the firms, that is, in their people and their knowledge, and not in how the firms position itself in the market. According to Barney (1991), rather than erecting barriers, in the future, firms will protect their knowledge resources by recruiting and developing intelligent, loyal and committed employees and support them with a culture of learning, commitment and collaboration. Therefore, the proficiency to gather, lever, and utilise knowledge efficiently and effectively will become a foremost source of competitive advantage in many businesses over the next few years.

Barney (1991) proposes four knowledge management criteria which can be used to decide whether a resource can be regarded as a distinctive capability or competency and these are: value creations to the customer, rarity to the competition, non imitability and non-substitutability. Hence knowledge should create value to firm customers and competitors should not be able to imitate the core competences. According to Barney (1991), linking knowledge management to competitive strategy requires inclusion of all the experience, knowledge, judgement, risk-taking propensity and wisdom of all individuals associated with the firm. The aim being to create firms which are more intelligent and flexible than their competitors. This is because KM is a unique blend of processes, procedures, personalities, capabilities and organisational culture (Grant, 1991).

Therefore, one of the keys to competitive advantage is the ability to differentiate what the business supplies to its customers from what is supplied by its competitors. Knowledge management may exploit supply-side or demand-side economies of scale (Ofek & Sarvary, 2001). In the former case, the role is to reduce the operating costs of the firm, while in the latter case its role is to create added value to customers by appreciably increasing product quality. According to Oder (2001), gathering and analysing business information is always constrained by time and resources resulting in some level of uncertainty about outcomes and unintended consequences of decisions. Ghemwat (1991) opines that in order to reduce uncertainty which normally characterise competitive markets, leaders must develop effective decision-making processes, structures, and communication channels. In the future authoritarian decision making by single individuals common in African firms will no longer be appropriate because of data overload and increasingly complex, often global, cross-boundary problems (Parikh, 2001). The concept of knowledge management is attracting great deal of interest in many developing countries (see Earl, 1999; Barth, 2000; De Tienne and Jackson, 2001). There is no tangible reasons why African firms should be left behind in this globalised knowledge economy.

In order to complete globally, it is our argument that African firms should strive to use their cultural experiences to build on or complement knowledge management strategies that provide current or future competitive advantages. Systematically mapping, categorizing and benchmarking knowledge with multinationals firms can help make knowledge more accessible and beneficial to African firms. Using knowledge maps to prioritize and focus learning experiences, African firms can create greater leverage for their learning efforts. Thus African firms are recommended to combine learning experiences into a critical learning mass around particular strategic areas of knowledge.

Knowledge generated within the firm is especially valuable because it tends to be unique, specific, and tacitly held. It is therefore more difficult for global multinationals to imitate, making it potentially valuable. African firms should also learn from foreign successful firms. Knowledge from outside the firm especially from multinational enterprises, whilst being more abstract and more costly to obtain, is more widely available to competitors with less internal resources. Such knowledge can provide for fresh discernments and a context for benchmarking internal knowledge by African firms with low research and development budgets.

Due to intensified globalisation of the economy it is critical for African firms to institute safeguards and ensure adequate use of knowledge. The laws pertaining to copyrights, patents, intellectual property need to be strengthened and enforced to ensure that African firms are protected from adverse effect of loss of knowledge as a result of intensified globalisation. According to Courtney (2001) and Watson (1996) protecting intellectual property will become critical to avoid loss of knowledge through employee turnover to competitors, physical theft of sensitive documents, inadvertent disclosure to third parties, breaching of Web repository security, reverse engineering and hacking. To maintain their competitive edge, firms are encouraged to build their intellectual capital through more resource allocations to research and development in order to proliferate their knowledge management initiatives. These knowledge management initiatives must also include creating an enabling business environment that emboldens employee involvement in social processes of knowledge creation; revamping the educational curricula; creating a culture of employee involvement in knowledge management; building an inclusive culture that encourages employee participation across all hierarchies (e.g. TQM, BPR, IT, process-centric structures)

III. CONCLUSION

The future of knowledge management in African will be one where people and advanced technology will start to work together, enabling knowledge integration across diverse domains. Firms that embraces knowledge management will produce considerably higher payoffs and consumer surplus for the society but firms that continue to ignore knowledge management will face disastrous consequences. The research surveyed literature on knowledge management in the developed world. The objective was to found out how firms operating in Africa can embrace knowledge management in order to compete globally. The globalization of business, the shift from production-based to a knowledge-based economy, the growth of information communications technology and the sudden growth of learning firms in the developed world are making knowledge management practice a must today across all types and levels of firms in Africa. Firms must become creators or acquirers of the knowledge to remain competitive in African business environments which are constantly always in a state of flux. Defining firms in terms of what they are capable of doing may proffer a more durable basis for sustainable competitive strategies than a definition based upon markets which the firms seeks to satisfy. The management of customer support knowledge is becoming increasingly important to most firms because of rapid product changes and the growing need for service-based orientation.

REFERENCE

- [1]. Abel, D. (1978). Strategic Windows. *Journal of Marketing* Vol. 42, pg. 21-28, July 1978.
- [2]. Anderson, G. (1990). Fundamentals of Education Research, The Palmer Press, London.
- [3]. Axelrod, R. and Cohen, M., (1999). Harnessing Complexity: Organizational Implications of a Scientific Frontier. The Free Press, New York, 1995.
- [4]. Barney, J. (1991). Firm Resources and Sustainable Competitive Advantage *Journal of Management*, Vol. 17 No 1, 1991.
- [5]. Barney, J. (1997). Gaining and Sustaining Competitive Advantages, Reading Mass: Addison Wesley, Chapter 11 and 13.
- [6]. Barth, S. (2000). Defining Knowledge Management, defining CRM online magazine [<http://www.destinationcrm.com/articles/default.asp?ArticleID=1400>]
- [7]. Bernhardt, D. (2002). Strategic Intelligence: The Sword and Shield of the Enterprise, *Competitive Intelligence Magazine*, Vol. 5, No. 5, pp 24-28.
- [8]. Blacke, (1988). Looing Inside for Competitive Advantages, *Academy of Management Executive* 9, No 4. Nov. Pages 49-61.
- [9]. Borghoff, U., Pareschi R., (Eds); Information technology for Knowledge Management. Berlin (1998).
- [10]. Camp R, (1989). Benchmarking: The Search for Industry Best Practices that Lead to Superior Performance, American Society for Quality Control, Quality Press, Milwaukee, Wis.
- [11]. Cappel, J.J. and Boone, J.P., (1995). A Look at the Link between Competitive Intelligence and Performance, *Competitive Intelligence Review*, Vol. 11, No. 4, pp 12-24.
- [12]. Chan, K. and Liebowitz J., (2006). The synergy of social software analysis and knowledge mapping: a case study. *International Journal of Management and Decision Making*, 7, 1. 19-35. Chandler A (1962). Strategy and Structure; Chapters in the History of Industrial Enterprise, Doubleday, New York.
- [13]. Choundhury, V., and Sampler, J., (1997). Information specificity and environmental scanning: An economic perspectives, *MIS quarterly*, 21(10), 25-53.
- [14]. Choi, Y. S., (2000). An empirical study of factors affecting successful implementation of knowledge management. Unpublished academic dissertation. University of Nebraska.
- [15]. Cohen D., and Prusak L., (2001). In Good Company: How Social Capital Makes Firms Work. Harvard Business School Press, Harvard.
- [16]. Cross, R., Parker, A., and Borgatti S. P., (2002) .A bird's-eye view: Using social network analysis to improve knowledge creation and sharing. URL: <http://www-1.ibm.com/services/us/imc/pdf/g510-1669-00-a-birds-eye-view-using-socialnetwork-analysis.pdf>.
- [17]. Davenport, T.H., and Prusak, L., (1988). Working Knowledge: How Organisation Manage What They Know, Boston: Harvard Business School Press.
- [18]. Davis, G. (1981). Strategies for Information Requirements Determination, Management Information Systems' Research Centre - Graduate School of Business Administration, University of Minnesota, USA.
- [19]. Hall, B.P. (2001). Values development and learning firms. *Journal of Knowledge Management*, 5(1), pp. 19 – 32.
- [20]. Hall, M. L. W. (2000). System thinking and human values, in Francisco Parra-Luna (Eds.). The performance of social systems, Kluwer Academic Publishers, New York, Boston, 15-24.
- [21]. Harrigan, R.K. (1980). Strategy for Declining Business, Lexington Books, USA.
- [22]. Huber, G.P. (2001). Transfer of knowledge in knowledge management systems: unexplored issues and suggested studies, *European Journal of Information Systems*, Vol. 10, No. 2, pp 72-79.
- [23]. Kaufman, R. (1992). Why operations improvement programmes fail: Four managerial contradictions. *Sloan Management Review*, 21(3), pp. 17 – 20.
- [24]. Kaplan, R.S. and Norton D.P., (1992). The Balance Scoreboard: Measures that drive Performance, *Harvard Business Review*, January/February, 1992, pp 71-80.
- [25]. Karash Richard, (2007). Learning Organisation, General Article on Management Skills.
- [26]. Karthyn Harrigan, (1986). Matching Vertical Integration Strategies to Competitive Conditions, *Strategic Management journal* 7, No 6, November-December, pp 535-536.
- [27]. Kogut, B and Zander, U., (1992). Knowledge of the firm, combinative capabilities and replication of technology. *Organization Science*, 3 (3) 383-397.
- [28]. Kogut, B. and Zander, U. (1996). What firms do? Coordination, identity, and learning, *Organization Science*, Vol. 7, No.5, September-October.
- [29]. Nonaka, I., (1991). The knowledge creating company, *Harvard Business Review*, 69, (Nov-Dec), 96–104.
- [30]. Nonaka, I. (1994) A dynamic theory of organisational knowledge creation, *Organisational science*, 5(1) 14-37

- [31]. Nonaka, I and Taekuchi, H., (1995) *The Knowledge Creating Company. How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.
- [32]. Polanyi, M., (1958) 'Personal Knowledge-Towards a Post-critical philosophy'. The University of Chicago Press, Chicago.
- [33]. Salleh, Y. & Goh, W.K. (2002). Managing human resources toward achieving knowledge management. *Journal of Knowledge Management*, 6(5), pp. 457-468.
- [34]. Senge Peter, Kleiner, Robert and Smith (1990) *Strategies and Tools for Building a learning organization*, Bantam Doubleday Dell, New York, USA,1990. 31.
- [35]. Sveiby, K. E., (1997). *The new organizational wealth: managing & measuring knowledge-based assets*. Berrett-Koehler, San Francisco. (German version).
- [36]. Tellis, G. and Golder, P., (2002). *Will and Vision: How Late Comers grow to Dominate Markets*, McGraw Hill, New York, 2002.
- [37]. Tichy, N., (1983). *Managing Strategic Change: Technical, Political and Cultural Dynamics*, John Wiley.
- [38]. Truch, E. and Bridger, D. (2002). The importance of strategic fit in Knowledge Management", in Wrycza, S, (Editor), *The Proceedings of the 10th European Conference on Information Systems: Information Systems and the Future of the Digital Economy*, Gdansk, Poland, June.
- [39]. Woo, C. and Cooper, A., (1982). The Surprising Case for Low Market Share, *Harvard Business Review*, Nov/Dec 1982, pg 106-113
- [40]. Zack, M.H., (1999). African a knowledge Strategy. *California Management Review*, spring, 41(3)-125-145.
- [41]. Zander, U., and Kogut, B., (1995). Knowledge and the speed of the transfer and imitation of organisational capabilities. An empirical test. *Organisation Science*, 6, 76-92.