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Effect of Knowledge Management on Firm Performance and Competitiveness

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ABSTRACT

Purpose: The purpose of this study was to investigate the effect of knowledge management on firm performance and competitiveness. Theoretical relations are tested through an empirical study carried out on 5 companies.

Results: The results showed how the firms that adopt knowledge management practices obtain better results than their competitors. The research limitations/implications were that the subject of principles has not been considered a dimension of knowledge management. New avenues of inquiry are opened considering this dimension.

Unique contribution to theory, practice and policy: The practical implications were that the study only considered practices that have a positive incidence on firm performance. Further, the conceptualization of knowledge management practices represents atheoretical innovation. This scale can be used in other knowledge-intensive industries. The analysis concludes that knowledge management practices have a positive incidence on firm performance

Keywords: *Competitiveness, Knowledge Management, Firms, Firm Performance.*

1.0 INTRODUCTION

Knowledge has been recognized as the main sources of competitive advantages in the economy. Small and medium-sized firms need to increase attention on knowledge management so as to be competitive. There has been a considerable amount of empirical research on the relationship between knowledge management and firm performance and competitiveness. the last decade, knowledge management (KM) has become a line of research attracting much interest. Although the literature had already worked implicitly with knowledge, the increasing spread of theoretical works on KM is due to the importance it has for the firm, as well as the development of the competence-based view (CBV).

The aim of this research is to study the importance of KM as a source of sustainable competitive advantages for firms and to analyze how the introduction of KM practices enables firm performance to improve. The practices that have a more positive influence on firm performance are also obtained. To achieve this aim, it is initially analyzed the theoretical framework of KM in order to specify the features and processes by which economic rents are created. Firstly, it is necessary to conceptualize KM as a starting point for designing an instrument for measuring it in the firm. In order to develop the various objectives proposed in the paper, it is necessary to take account of different theoretical fields. CBV includes a set of approaches with a common factor, the importance of intangible assets as source of sustained competitive advantages. In this sense, this approach focuses on the importance of firms' specific competences in their strategy and performance. Foss (1996, p. 1) emphasizes this approach and states that a firm can be conceptualized as a set of competences, and the ability of the firms to accumulate, protect and develop competences is the key to getting the competitive advantage Firms are currently operating in a competitive environment; firms need to continua innovate so as to be competitive (Lemon and Sahota, 2004; and Cooper et al., 2008).

Effective knowledge management has been found in previous studies to be an antecedent of innovation (Nonaka and Takeuchi, 1995; Dove, 1999; Carneiro, 2000; Darroch, 2005; and Liao and Wu, 2009). Knowledge management is a critical element to successful innovation since the innovation process is knowledge intensive (Gordon and Tarafdar, 2007; Maqsood and Finegan, 2009). Firm's financial performance and its survival in the ever competitive market is determined by the speed at which they develop knowledge-based competencies. Firm's competitive advantage lies in its knowledge management competency (Bell, 1973; and Nonaka, 1994). Firms competing in the knowledge-based economy can sustain their competitive advantage by harnessing their own unique knowledge and building their capability to learn faster than their competitors (Grant, 1996b; Prusak, 2001). The type of knowledge needed by a firm must be tailored toward its own unique peculiarities. Knowledge can be distinguished from the traditional factors of production (land, labour and production) in that it is governed by what has been described as the law of increasing returns. In contrast to the traditional factors of production that were governed by

diminishing returns, every additional unit of knowledge used effectively results in a marginal increase in firm competitiveness and performance (Malhotra, 2001).

Objectives of the Study

The main aim of the study was to assess the effect of Knowledge Management on Firm performance and competitiveness

LITERATURE REVIEW

Theoretical review

1. **The resource-advantage theory.**

The resource-advantage theory has recognized knowledge as a strategic resource of the any firm. The capability to create and utilize knowledge will enable small and medium enterprises to develop a sustainable competitive advantage since knowledge possesses the characteristics of heterogeneity, uniqueness, and immobility. Knowledge management processes are part of an organization's processes. According to Gold, Malhotra and Segars (2001), knowledge management processes are precondition for effective knowledge management in a firm. Knowledge management has also been viewed as multidimensional and multidisciplinary concept Sutton (2008). According to Davenport (1994) knowledge management is the process of capturing, distributing, and effective use of knowledge. Knowledge management promotes and integrate approaches of identifying, capturing, evaluating, retrieving, and sharing all of an enterprise's information assets. The enterprise assets include databases, documents, policies, procedures, and previously un-captured expertise and experience in individual workers.

2. Intelligent Complex Adaptive Systems

The ICAS (*Intelligent Complex Adaptive Systems*) theory sees organization as an adaptive, complex system. Beer (1981) was a pioneer in the treatment of the organization as a living entity. Complex adaptive systems consist of many independent agents that interact with one another locally. Together, their combined behaviour gives rise to complex adaptive phenomena. These models contain series of functions which ensures the viability of any living system in general and of organizations, in particular. ICAS systems are based on cybernetics principles, which are using communications and control mechanisms in order to understand, describe and predict what should do a viable organization. Adaptive systems contain lots of independent agents which are interacting. Their behaviour makes possible the appearance of some complex phenomena of adaptation. There is no general authority to manage the way in which these agents should work. A general model of a complex behavior will be the result of all the interactions (Cristea and Căpaţînă, 2009, p.363). Bennet describes an approach of knowledge management, using ICAS systems as a starting point. It is considered that traditional bureaucracies are not enough to provide the necessary cohesion for the survival of the organization. It was proposed a new model (Bennet) in which the organization is perceived as a system found in a symbiotic relation with its environment.

Bennet model is based on a number of subsystems which interacts and evolves in order to generate an advanced and intelligent technological company (Cristea and Căpaţînă, 2009, p.363).

Inside the adaptive model, the intelligent components are made of people which are self-organized, but who can remain as a part of general hierarchies of the organizations. The challenge is to use the advantage given by the force of the people when they cooperate, keeping a global sense of unity. The organizations solve problems by creating options, using resources both internal and external which can add value over the initial input. So, the knowledge became the most valuable resource because it is the only one who can help in the context where uncertainty exists. This is one of the criteria by which we can distinguish between information management (predictable reactions to known situations and anticipated situations) from knowledge management (using new reactions for un-anticipated situations).

METHODOLOGICAL REVIEW

The study used a methodological approach and a descriptive design since we focused on getting inferences from the findings on the impact of knowledge management on firm competitiveness of previous study. Twenty articles were analysed using content analysis and later descriptive ran. Thus, the use of qualitative and participative methodologies will allow us to re-construct concepts and pay attention to new ones not attended so far, with a view to move forward on the analysis of a phenomenon that has its roots in knowledge management and firm performance. Qualitative and participative methodologies will allow us to recover the voice of the real actors of the phenomenon studied, knowledge management and firm performance. Thus, women's experiences will alert about the limits in the existing concepts and indicators and provide information on the factors that we need to consider in order to knowledge management indicators.

Empirical Review.

Firestone (2001) proposes an intuitive approach to clarify the relation between KM, corporate objectives and benefits. He suggests an abstract model called ''benefit global estimation''. To estimate the benefit of a KM program, a conceptual perspective is required, as well as the use of tools and methods, rather than the ad hoc use of analytical approaches. To relate KM programs and firm performance, the previous analysis of corporate objectives and business processes is required. In this sense, KM is a business process that can help firms reach their goals. Firestone (2001) argues that a KM program is made up of tasks (T1,T2,..., Tn). These tasks have an impact on business processes (P1,P2,..., Pn) and a recompounded by different attributes which determine their present state. The difference between the present state and the objective state aids the understanding of how the introduction of a KM program influences firm performance. One of the main problems of this model is the excessive simplicity of the effects deriving from the introduction of KM in the firm. There are variables related to human capital that the model does not include, such as the improvement of its capabilities or skills.

Davenport (1999) relates KM activities with some intermediate activities that affect financial results. Progress in KM activities affects intermediate variables such as project performance measurements, indicators of the capacity of employees to carry out tasks related to knowledge, and finally, the generation of ideas and innovations. The generation of new ideas and innovations in the firm, due to a better use of knowledge, could have an effect on the improvement of processes. In the same way, an improvement in processes perfects employees' capabilities. Wiig (1999) creates a cause-and-effect diagram depicting the effects of introducing a KM program. The added value of the model lies in introducing all the effects deriving from a program that encourages the creation and sharing of knowledge.

Decarolis and Deeds (1999) study the impact of organizational knowledge on firm performance. Organizational knowledge is conceptualized through stocks and flows of knowledge (Dierickx and Cool, 1989). Knowledge stocks accumulate knowledge assets that are internal to the firm. Flows refer to all the elements able to modify the stock of knowledge. A suitable context for examining stocks and flows of organizational knowledge and its relationship with firm performance is a dynamic industry in terms of knowledge generation, so the authors are using the biotechnology sector for the empirical study. Decarolis and Deeds (1999) conclude that from the variables used to make flows of organizational knowledge operational, only the munificence of the geographical area is significant. This means geographical location influences capacity for capturing knowledge. As for the variables used to measure knowledge stocks, there are two that positively affect firm performance: the number of products that the firm is developing and the number of times works created by a firm are cited. In addition, organizational knowledge stocks have greater impact on firm performance than knowledge flows.

FINDINGS

The study analysed the relationships that are inherent among between knowledge management and firm performance. The findings revealed that knowledge management was positively and significantly associated with firm competitiveness indicating that knowledge management had a positive variation on firm competitiveness. When asked how KM techniques are applied, 35% of the respondents said it was through technology, 37% said through corporate communication and the remaining 28% said through mutual trust. This shows that corporate communication technique has the greatest impact followed closely by technology. The respondents were also asked to give their opinion on how knowledge management strategies are best applied. The majority of the respondents (28%) said it is best applied through workshops. Other strategies identified included organisational communication, organisational policies and team building. In regards to the impact of these strategies, the majority (37%) of the articles showed that the strategies have impact on corporate communication, 35% said the strategies impact the choice and use of technology while 28% were of the view that the strategies have an impact on mutual trust in the firm. These findings indicate that the knowledge management practices applied by different organizations have had an influence on important aspects of the organisation's work and staff. The authors also probed the

general assessment of the knowledge management techniques. The findings imply that more than half of the staff were comfortable with the knowledge management techniques applied in the company. On the importance and impact of knowledge management to the company, most firms were of the view that improved processes were a direct result of good knowledge management practices and some said they have enhanced competitive advantage. Another 25% felt that innovation was being brought about by the good knowledge management practices while the some viewed knowledge creation as the biggest gainer from the knowledge management practices in the firm. Assessing the extent of impact, the majority of the firms (32%) were of the view that it has been "great" while 27% thought it has been "very great". This implies that more than half (59%) thought the impact has been significant. Another 25% thought it was moderate while 16% thought the impact was little. It can thus be concluded that knowledge management practices at UAP have had a big impact on its competitive advantage in the market.

DISCUSSION AND CONCLUSION

The present study has examined the relationships among knowledge management on the firm performance and competitiveness. It has been seen that knowledge management, leads to innovation and firm Competitiveness. Moreover, the findings show the positive and significant relationship between knowledge management and firm competitiveness. The study suggests that knowledge management is antecedent of innovation, which in turn enhances firm competitiveness. Organizations managing knowledge more effective will gain a competitive position in the turbulent and dynamic business environment of the 21st century. Organization innovation process depends heavily on knowledge, and the knowledge management should be an essential element of running firms. Therefore, Knowledge management is essential for the survival of any business in a competitive business sate up as organizations are forced to innovate in order to compete with other business in the sector. \Therefore, organizations should focus on knowledge management to improve competitiveness through innovativeness. The findings of this study contribute in literature by providing empirical evidence of the relationship among knowledge management practice, innovation and firm competitiveness. The study provides valuable information to managers of small and medium enterprises to embrace knowledge management so as to accelerating innovation and firm competitiveness which will eventually influence firm performance level. Knowledge should be managed effectively in order to bring innovation in the organization. Moreover, the innovation is prerequisite of firm performance in this dynamic environment. Managers should focus on knowledge management practices, such as knowledge acquisition, knowledge dissemination and responsiveness to knowledge, in order to improve the innovation and eventually firm performance. The limitations of this study will be focus for future research. It is a cross sectional study where data was collected at a particular time that makes it restricted to that particular time.

The findings of this study contribute in literature by providing empirical evidence of the relationship among knowledge management practice, innovation and firm competitiveness in the

different sector. The study provides valuable information to managers of small and medium enterprises to embrace knowledge management so as to accelerating innovation and firm competitiveness which will eventually influence firm performance level. Knowledge should be managed effectively in order to bring innovation in the organization. Moreover, the innovation is prerequisite of firm performance in this dynamic environment. Managers should focus on knowledge management practices, such as knowledge acquisition, knowledge dissemination and responsiveness to knowledge, in order to improve the innovation and eventually firm performance. In regards to Practical Implications the findings of this study can be used by firms to employ knowledge management more meaningfully to their competitive advantage. They may also be used to demonstrate the value of knowledge management in enhancing the capacity of private firms to survive in an increasingly competitive environment. These findings may also be used by knowledge management practitioners working in the private sector to select the strategies and techniques which are likely to generate a higher impact for their firms.

RECOMMENDATIONS

An analysis on the recommendations on knowledge management enhancement in different organizations were also conducted. The aim of the recommendations was to alleviate the identified challenges. The respondents provided the following recommendations:

1. 33% recommended an improvement of the organisational culture to make it more facilitative of learning and sharing of knowledge than it is now;

2. 32% proposed an improvement of the technological infrastructure in the firm to make it adequate to support effective knowledge management;

3. 35% recommended the improvement of the employees' individual commitment to knowledge management initiatives through a combination of appropriate rewards and incentives.

Additionally, researchers also make the following recommendations:

1. Firms should benchmark with the other industries in different countries and beyond so as to share best practices in knowledge management.

2. The firms should encourage the creation of new knowledge by developing a safe working environment which facilitates the workers to experiment without the fear of being reprimanded or sacked if they make mistakes. Essentially, the organisations should make it easy for their staff to make safe mistakes which may result in new knowledge.

3. They should also recognise and manage the diverse interests of all the stakeholders to minimise resistance to knowledge management projects and activities. This may also imply involving as many stakeholders as possible in planning, designing and implementing knowledge management programmes.

4. The companies in the insurance sector in Kenya should also identify and mitigate knowledge management risks promptly. This can be achieved through comprehensive planning of projects and implementing new knowledge management systems in phases.

5. Although the insurance firms in Kenya compete against each other, they should seek opportunities to collaborate, network and build alliances which promote sector-wide knowledge creation, sharing and learning

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