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Impact of Knowledge Management on Organizational Performance

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ABSTRACT

Knowledge Management focuses on organizing and making available important knowledge, wherever and whenever it is needed. The field of Knowledge Management is of growing interest in today's business and academic world. As society enters into the knowledge based-economy, effective knowledge management is essential for organization to stay competitive. The purpose of this study is to conduct a thorough literature review on the impact of Knowledge management on the overall performance of an organization and thereby finding the knowledge and ideas that have already been established on this topic and what their strengths and weaknesses are. This study reviewed the literature as extensively and efficiently as possible and reviewed them critically to explore or highlight further research avenues/ questions for future research. Although based on our literature review, none of the research findings demonstrate the direct relationship between knowledge management practices and its impact on financial performance of an organization, research findings however, prove that knowledge management impacts organizational performance which in turn impacts financial performance of an organization.

Keywords: Knowledge management, Organizational performance, knowledge management practices.

1. INTRODUCTION

Knowledge as defined by Alavi & Leidner (2001) as well as Nonaka (1994) is a set of justified beliefs that enhance an entity's capability for effective action. Knowledge is sometimes also referred to as information with direction. Knowledge therefore is at the higher level in a hierarchy with information at the middle and data at the lowest level. Knowledge Management according to Armbrecht et. al. (2001), is defined as doing what is needed to get the most out of knowledge resources. Knowledge according to Davenport & Prusak (1998), Nonaka (1994) and Polanyi (1966), incorporates both the explicit knowledge which is expressed in numbers and words and shared formally and systematically

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in the form of data, specifications, manuals etc, and tacit knowledge, which includes insights, intuitions, and hunches. Knowledge Management can also be defined as performing the activities in discovering, capturing, sharing and applying knowledge so as to enhance, in a cost-effective fashion, the impact of knowledge on the unit's goal achievement. Knowledge Management focuses on organizing and making available important knowledge, wherever and whenever it is needed. The field of Knowledge Management is of growing interest in today's business and academic world. As society enters into the knowledge based-economy, effective knowledge management is essential for organization to stay competitive.

Today's decision maker faces the pressure to make better and faster decisions in an environment characterized by a high domain complexity and market Volatility (Bercerra-Fernandez et.al., 2004). Organizations are increasingly undertaking Knowledge Management initiatives and making significant investment in them.

Knowledge Management over the last 15 years has progressed from an emergent concept to an increasingly common function in business organizations. Retaining expertise, increasing customer satisfaction and increasing profits and revenue are sometimes considered as main reasons for an organization to adopt Knowledge management. Knowledge management can impact an organization at different levels such as: impact on People in terms of employee learning, employee adaptability, and employee job satisfaction, impact on processes in terms of process effectiveness, efficiency and innovation, impact on Product in terms of value added product as well as knowledge based product, all of which in turn impact organizational performance (Becerra-Fernandez, et al., 2004).

The purpose of this study is to conduct a thorough literature review on the impact of Knowledge management on the overall performance of an organization and thereby finding the knowledge and ideas that have already been established on this topic and what their strengths and weaknesses are. This study will scan the literature as extensively and efficiently as possible and review them critically to explore or highlight further research avenues/ questions for future research.

2. METHODOLOGY

The ability to create and apply knowledge becomes an important source of competitive advantage. The methodology adopted for this research is qualitative in nature since this study is solely based on secondary data.

3. LITERATURE REVIEW

A review of prior literature can effectively uncover the key indicators for successful Knowledge Management in Organizations. The study of the possible effects of introducing KM in the firm has centered on determining whether it is able to carry out quantifiable improvements (Marqués & Simóm, 2006). Davenport (1999) points out, although the relationship between KM and performance indicators has been discussed in the literature at length, few firms have been able to establish a causal relationship between KM activities and firm performance.

There have been some studies that demonstrate that although KM impacts organizational performance, it however does not directly impact financial performance of an organization. Zack, McKeen and Singh (2009) demonstrated in an exploratory analysis after having studied some North American (US and Canada) and Australian companies about the impact of KM on organizational performance that although there is no direct relationship between KM Practices and financial performance of an organization, KM practices however are directly related to organizational performance which, in turn, directly related to financial performances. More specifically authors in their studies also found that KM practices are directly related to various intermediary measures of strategic organizational performance namely; customer intimacy, product leadership and operational excellence and that those intermediate measures are, in turn, associated with financial performance. Their study was exploratory in nature and the findings were based on north American and Australian organizations as such there remains much work to be done since culture, financial reporting and KM processes in general may vary beyond this limited geographic sample. Their research was less interested in the detailed technological, socio-cultural, or structural mechanisms by which KM is supported or enhanced, and focused instead on the perceived quality and extent of KM practices and how they related to outcomes. Tanriverdi (2005) found a moderately weak ($r= 0.15$) but positive relationship between a firm's financial performance and its ability to create, share, integrate, and use knowledge. Kalling, T. (2003) findings show that the effect of KM on organizational performance is contingent upon various firm level and organizational level contingencies. Kalling has divided KM into three processes; knowledge development, knowledge utilization, and knowledge capitalization. Each process has its own contingencies factors and performance outcomes. Changes to organizational practices in general, and KM in particular, do not necessarily result in changes to financial performance. Choi and Lee(2003) examined four styles of KM; Human oriented, passive, system oriented and dynamic. The dynamic style of KM leads to better corporate performance.

According to Choi and Lee (2003), KM affects a set of intermediary capabilities that, in turn, should affect financial performance. Mohram et. Al (2003) extended the notion of organizational effectiveness to include financial measures. They surveyed ten companies and established a weak positive relationship between the extent to which the organizations created and exploited knowledge and overall organizational performance including financial metrics. However, by aggregating a broad set of financial and non-financial metrics, the strength of the relationship may have been reduced. 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. Gold et. al (2001) examined the contribution of knowledge infrastructure(IT, organization culture, and organization structure) and knowledge processing capability(i.e. the ability to acquire, convert, apply and protect knowledge) on several dimensions of organizational effectiveness. They found a strong and significant relationship between both the knowledge infrastructure and knowledge processing with organizational effectiveness, measured using broadest of non-financial outcomes (e.g. innovation, coordination, responsiveness, ability to identify market opportunities, speed to market, and process efficiency). They however did not examine the relationship to financial performance. Chakravarty et. al, (2003) identifies that there are three KM activities; Knowledge protection, Knowledge leverage, and Knowledge accumulation. No Knowledge base can lead to sustainable advantage unless organization continuously creates new knowledge. There is a paradox associated with three KM activities. Aggressive attempts at leveraging knowledge can inhibit knowledge accumulation because the later may typically not offer financial returns in the short run whereas the former often does.

There have some studies that examined the use of knowledge management in an organization and the competitive advantage. Allard and Hossapple (2002) suggested a knowledge chain model by taking a KM view to gain competitive advantage in e-commerce. Beckett et.al (2000) developed a framework with three KM strategies; acquisition, retention, exploitation, to gain competitive advantage. Berawi (2004) demonstrated that KM affects competitive advantage through its effect on quality management. Bhatt (2001) findings show that in order to gain competitive advantages from KM, organization ought to treat KM within the context of technological and social system. Chuang's (2004) study builds KM capability from four KM resources; technical, human, cultural, and structural. The KM capability is related to competitive advantage. An empirical study conducted by Darroch and McNaughton (2003) demonstrates that Organizations with KM orientation outperformed organizations with market orientation. Lee and Yang (2000) develops an idea of knowledge value chain and suggests that competitive advantage comes from the way organization performs each knowledge activity in the knowledge value chain. Salazar et. al(2003) examined

the strategic impact of internet technology in biotechnology and pharmaceutical firms from a KM perspective where KM has found to have enabled smaller pharmaceutical and biotechnology firms to compete and gain competitive advantage. Dibella and Navis (1998) stated that the introduction of KM programs facilitates the acquisition of new knowledge which will have a bearing on the creation of new routines and mental models. Besides, the importance of knowledge as basic factor to create a competitive advantage is reinforced in industries that are constantly innovating. Singh et. al (2006) examined the KM practices in Indian manufacturing organizations based on the data collected and analyzed for 71 industries where their findings indicate that automobile and machine tool sectors are two sectors that are using KM extensively as compared to other sectors surveyed and the main reason why these organizations are focusing on KM are gaining competitive advantage and creating new knowledge. Competitive priorities for which Indian organizations are using KM include quality, cost reduction, improvement in efficiency, improved delivery, flexibility and innovation. However culture and financial constraints are amongst the highest ranked barrier for KM implementation.

There are some studies that show how the implementation of Knowledge management impacts the overall performance of an organization. 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 KM program, a conceptual perspective is required as well as the use of tools and methods, rather than the adhoc use of analytical approaches. Firestone (2001) also argues that KM program is made up of tasks and these tasks have an impact on business processes and are compounded 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 Firestone (2001) model is the excessive simplicity of the effects deriving from the introduction of KM in the firm. There are variables related to human capitals that the model does not include, such as the improvement of its capabilities or skills. Decarolis and Deeds (1999) studied the impact of the organizational knowledge on firm performance. Using the biotechnology sector for the empirical study, they concluded that organizational knowledge is conceptualized through stocks and flows of knowledge. Knowledge stocks accumulate knowledge assets that are internal to the firm. Flows refer to all the elements able to modify the stock of knowledge. Authors 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 variable that 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. Yang (2007) demonstrated through empirical investigation that knowledge sharing facilitates the transformation of the collective individual knowledge to organizational knowledge which results in the advancement of organizational learning and eventually the enrichment of organizational effectiveness. Yang (2007) ran a regression test by taking organizational effectiveness as dependent variable and organizational learning as well as knowledge sharing as independent variables. Based on the survey of 499 participants across none international tourist hotels in Taiwan, the results shown in his study indicate that there is a significant relationship between the dependent variable of organizational effectiveness and independent variables of organizational learning and knowledge sharing. Marqués and Simón (2006) examined the theoretical relations between Knowledge Management and firm performance through an empirical study carried out of 222 Spanish firms in the biotechnology and telecommunications industries and proved that firms that adopt knowledge management practices obtain better results than their competitors. Wig (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 encourage the creation and sharing knowledge. The findings of the research conducted by Choi and Jong (2010) on assessing the impact of knowledge management strategies announcements on the market value of firms, supported the hypothesis that firms' announcements about their KM strategies provoked positive reactions in the market. More specifically, strategies that focus on either i) knowledge reusability through IT or ii) knowledge sharing through informal discussions among employees contributed to higher performance than strategies that emphasized both. This outcome empirically supported the argument that the emphasis on either tacit or explicit knowledge results in a better market value of the firm.

Almashari et. Al (2002) conducted an empirical study on some organizations based in Kuwait where they concluded that most of the captured knowledge comes from the external sources and the employees in both private and government organizations considered knowledge to be somewhat private. This study however did not try to identify how KM can impact organizational performance rather it tried to find out how employee view the role of KM in an organization. Becerra-Fernandez and Sabherwal (2003) conducted a Study at JFK space center of National aeronautics and Space Administration using a survey of 159 individuals on the effect of KM processes at individual, Group and Organizational Levels. Their study highlights the importance of individual level knowledge and demonstrates the importance of individual-level learning not only to the individuals and their groups, but to their entire organization as well. Organization that continues to invest in the intellectual growth of their individuals will continue to reap rich returns via growth in organizational knowledge. Their study also highlights the importance of combination. Combination process which enables the integration of chunks of explicit knowledge seems to contribute most to organizational knowledge. However, the

generalizability of their findings is potentially limited by the fact that all the respondents belong to the same organization because like other organizations; Kennedy Space Center has its unique strategic, structural and cultural attributes.

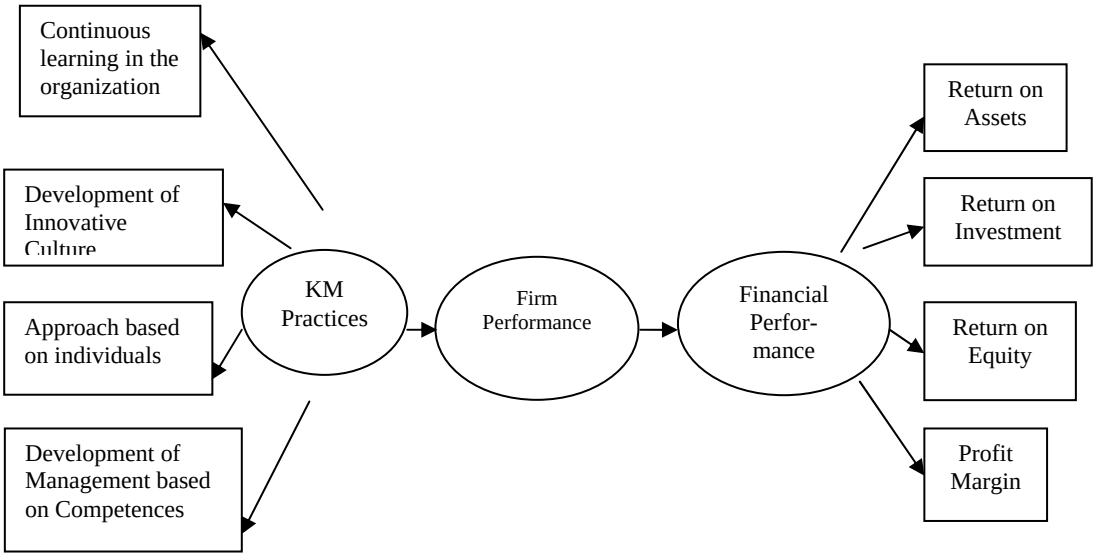

Figure 1. Diagrammatic Representation

4. CONCLUSION AND DIRECTIONS FOR FUTURE RESEARCH

Knowledge is not a simple asset but it focuses on other assets. To be successful, firms must be able to learn continually and apply their knowledge, anticipate market changes (Alvesson,2000). It is becoming accepted that knowledge management is required for modern organizations seeking to stay competitive in an increasingly dynamic and competitive world. The goal of knowledge management as a process to improve the organization's ability to execute its core business functions more efficiently and effectively (Mezher et. al 2005).Although there is much literature on the relationship between KM and organizational performance, the benefit of KM is not well understood. The field of Knowledge Management is of growing interest in today's business and academic world. Organizations are living in a world of expanding knowledge, most people being knowledge workers, and knowledge being the only true business asset. Global organizations have started using KM technologies to heighten their competitiveness in ways that were impossible a year ago. The ability to share the internal best practices is important to overall organizational performances (Szulanski, 1996), and exploiting external knowledge is crucial in

driving new product innovation (Von Hippel, 1994) and to organization performance in general (Sher and Lee, 2004). Although none of the research findings demonstrate the direct relationship between KM practices and its impact on financial performance of an organization, research findings however, prove that KM impacts organizational performance which in turn impacts financial performance of an organization.

As for the future research, Culture, financial reporting and KM processes in general may vary beyond the limited geographic sample, research should be done on the influence of geography and culture in examining the KM practices and performance outcomes. Culture is perhaps most influential factor in promoting or inhibiting the practice of knowledge management. Especially organization that values their employees for what they know and reward employees for sharing that knowledge create a climate that is more conducive to knowledge management. Research should be conducted as to how organizations are to develop a KM mindset to enable KM practices to get traction within organizations. Further research should be done whether socialization as a knowledge integration process is useful for all organizations.

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