# Interdependency between KM and rich performance outcomes in terms of a sustainable competitive advantage

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*Abstract*-The main focus of this paper is to shed light on the key factors influencing the deep and rich performance outcomes, and consider it as a sustainable competitive advantage, and the role of KM in this regard. A review of the KM literature was closely undertaken and key issues which led to rich performance outcomes were identified. The paper was written according a conceptual model which considered KM stage as input and appraised transfer stage and output of the model to obtain a sustainable competitive advantage. This study was carried out by reviewing six items including innovation, sufficient learning opportunity, transform of tacit knowledge to explicit knowledge, communication skills, and user knowledge satisfaction .All items are considered as the transfer stage between KM implementation and rich performance outcome stage, and represented their impact on organization's mission versus competitors. Such significant findings will have essential effect to exploit new opportunities for organisations on how their KM attempts can affect performance outcomes and business successes to edge sustainable competitive advantage.

*Key words - Knowledge management, performance outcomes, sustainable competitive advantage*

## I. INTRODUCTION

The risk issues and uncertainty inherent in dynamic environment of modern economy have highlighted the advantages of KM in organisations (Choy et al., 2006).By regarding to the uncertainties attached to internal and external environment of organisations, some pertinent point of views can be mentioned about the role of KM and its certain effect on performance outcomes to obtain a sustained competitive advantage.

In an entrepreneurial environment characterized by global marketing, increase of competition powers, and high rate of change in technological tools, tangible assets cannot longer provide sustainable advantages for competition. Contingency lies deep as a common border line between most of management theories. It means managerial practice should fit different situations and that theory should be able to establish a variety of links between practice of managers and each situation (Drajer, 2004).

Recent surveys evidences show that, as well as organisations claim to exploit KM opportunities for their practices, not many of them are considered to succeed in their organisational attempts. While KM issues try to improve performance of firms and organizations, developed performance measures are necessary within the organizations surveyed to assess the value of their knowledge asset (choy et al., 2006).We hope current and future studies can find appropriate answers for these kinds of questions in terms of

KM impacts. But however, by lack of an appropriate framework for assessing current KM status, organizations are still struggling with their KM performance issues. At this point, two other reasons intensify that kind of struggling. first, lack of accumulated research to enable conditions of KM context, and second, failure of organizations to return from their KM approaches and initiatives (Yu, Kim et al., 2007).

This study addressed this question that through which items KM can be transferred to rich performance outcomes in terms of sustainable competitive advantage. We aim to identify  transfer items which derive from KM implications and lead to sustainable competitive advantage. The other objective of this paper is to analyze interdependency between KM and sustainable competitive advantage through transfer items and rich performance outcomes. we will have a narrow focus on six items which can be considered as transfer stage to exploit the opportunities that KM  create and promote. These six items include innovation, sufficient learning opportunity, transform of tacit knowledge to explicit knowledge, communication skills, and user knowledge satisfaction. The findings may have important impact to exploit new opportunities in organisations on how their KM attempts can affect performance outcomes and business successes to edge sustainable competitive advantage.

## II. BACKGROUND

KM can be defined as a systematic application to measure and control tangible and intangible knowledge asset of organisations. At this point, the main goal of using current knowledge in internal and external environment of the organisations is creation of new status of knowledge and generation of more value for different process of organisational activities (Jafari and Akhavan et al., 2007).For deeper understanding of the issue we should deal with some meaningful objectives such as knowledge sharing in which the process of KM implication are empowered and enriched to promote the quality level of organisational members' performance  specially data workers and knowledge workers' practices.Organisations use techniques of knowledge management system in terms of knowledge sharing to capture cultural barriers and develop a suitable environment for knowledge production (Rivera-Vazquez

et al., 2009).BY implementing a variety of programs such as creating of knowledge contribution incentives and touching advantages of KMS ,firms and organisations hope to institutionalize active ,voluntary and self-sustaining knowledge sharing and reuse in long-term behavior(Iyer and Ravidran,2009).KM makes an attempt to create and keep a new environment for members of organisations to share their knowledge and experiences(Jafari and Akhavan et al.,2007). In this regard,it can be utilized as a part of CRM to improve customer-related process such as identifying customer needs and wants, measuring satisfaction of information, servicing and empowering responsibility by regarding to three categories of knowledge for customers, knowledge about customers and knowledge from customers(Goh et al., 2007).

In KM landscape clarifying the hidden meaning of data, information, knowledge, wisdom and intelligence can be viewed as one important task to interpret different dimensions of the KM stage, so perhaps it will be awkward to concern with KM without paying close attention to main content of these subjects.

### III. CONCEPTUAL MODEL

Different studies on KM and knowledge management system(KMS) show that the main focus of surveys have been mostly on knowledge acquisition, knowledge storage, knowledge dissemination, knowledge application, KM value chain, enterprise-wide KMS, knowledge work system , intelligent techniques and examining criteria for measuring KM performance outcomes((Laudon and Laudon, 2009 ;Choy et al., 2006).In a new strategic model that we concern in this paper, according shift processes we can interpret how KM can provide rich performance outcomes and create a sustainable competitive edge.In this regard, six items can be seen as a transform level between knowledge management process and a high level of qualified performance.
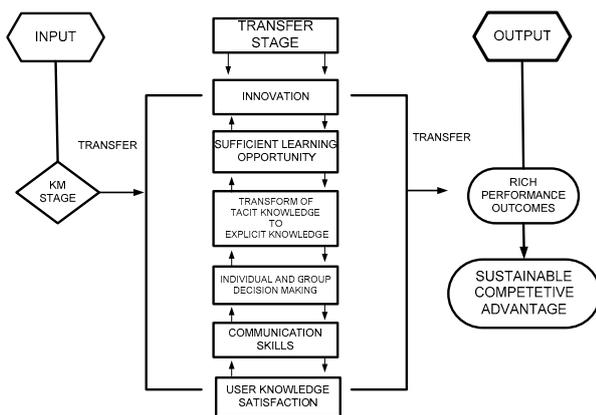


Figure-1　Transfer stage to sustainable competitive advantage

#### A. Innovation

Process knowledge is the knowledge and information which are produced as the outcome of what innovative process practices (Jang et al., 2002). Innovation can be defined from different dimensions. It should be correct when Gloat and Terziovski (2004) write that innovation is sharing common themes relating to knowledge, process and servicing to improve competitive advantage and meet customer's changing needs. At this point, some of the definitions which they mention are important in our model which consider innovation as the first item of shifting knowledge management to enrich deep performance outcomes.

Due to the sources of innovation in management, De toni et al (1998), Drucker (1985) and Edinquist (1997) mention (in order) six, seven and nine sources of innovation. Ju et al (2006) make an attempt to identify the interrelationships among knowledge characteristics, knowledge management strategy, knowledge integration, organisational learning and knowledge management capability. They formulate that: *"Levels of firm's knowledge integration will significantly affect its levels of knowledge management capability."* and then identify KM capability as the ability of firms in the acquisition, conversion and application of knowledge. They mention knowledge will not be able to promote innovation if it cannot be shared or distributed to the relevant people.

In fact, innovation can be viewed as one of the appliances which exploit knowledge and by its direction turns to rich performance outcomes. Cantner et al (2009) mention to increasing collaboration on innovation activities between actors within a firm which is feasible by knowledge management practices. To create an innovative organisation, a firm should capitalize on its employee's ability to innovation which by sharing of knowledge, insights and experiences lead to deep performance outcome of the employees (Jong and Hartog, 2007). Suh et al (2004) mention a KM model for R&D organisations and have discussion how to employ it for their innovations and Scarbrough (2003) tries to present that by development in technological and organisational activities which practice of knowledge generates knowledge, the innovation process progressively intensified. Under this circumstance, performance outcomes of organisational members can increasingly develop a competitive edge for the firms.

#### B. Sufficient learning opportunity

Like human, organisations create, gather and analyze knowledge. For this reason they use a variety of organisational learning mechanisms. In fact,organisations gain experience through collection of data , measurement of planned activities, experiment (trial and error ), and feedback from customers and environment in general. Companies need ways to keep track and manage employees learning and to integrate it into KM and a variety of other systems in corporation. At this point, a learning management system (LMS) provides tools for management, delivery, tracking and assessment of employee learning and training turn into organisational learning needs to pay appropriate attention to IC (Laudon and Laudon, 2009).Knowledge competence of organisations can be exploited in two attitudes. First, management of knowledge by collection, present, distribution and measurement of knowledge.

Second, creation of knowledge environment by development and sharing of knowledge .At this point, IC and KM can strongly emerge themes in organisations (Jarrar, 2002).KM can be typically the approach that is used to guidance of managing IC by a set of processes and activities that support, facilitate and leverage the development of a combination of human structural and social capital that lead to empowerment of organisatonal learning and improvement of employees performance outcomes by providing sustainable competitive advantage(Shulha and Mcintyre, 2007).

Knowledge sharing as a dynamic process or continuous learning can be considered not only  transmitting knowledge, but also absorbing and being used by people that can be presented, as an equation proposed by Vorakulpipat and Rezgui (2008):

Knowledge sharing (transfer) = transmission+ absorption (in use). Pauleen  (2007) mentions as well as technology-focused understanding of KM evolves into a comprehensive view , it acknowledges the importance of facilitating the interaction of employees in order to share and retain knowledge and creation of an environment to promote performance outcomes and positioning in a sustainable competitive situation. KM framework and system support performance through learning so that learning is integral to performance of people (social),planet(environment) and profit(economic) issues (Goerlick,2005) and powerful tool to promote organizations among other competitors in a continuous sustained approach.

## C. Transform of tacit knowledge to explicit knowledge

As well as Polanyi (1958) divided knowledge into two categories of tacit and explicit, so many followed it researchers (Choy et al ,2006;Bhardwaj and Monin,2006;Moorandian , 2005;Herschel and Nemati et al , 2001;Laudon et al , 2009).At the end of 20th century some researchers such as McAdam and McCreedy(1999) had a critical view to the issue and by regarding Nonaka and Takeuchi's KM model (1995)asked that it is appropriate to solely categorize knowledge in such a way? They mentioned where P is programmed knowledge and Q is knowledge gained by questioning view, tacit knowledge cannot definitely represent Q, neither cannot explicit knowledge definitely represent P. Therefore P and Q map onto a different categorization of knowledge from a critical point of view.

In this paper, by regarding simplicity and deep content of Polanyi's definition and Nonanka's model we follow them. At this point, turning of tacit knowledge as knowledge residing in the minds of organization members that has not been classified and documented, into explicit knowledge as knowledge which has been classified and documented can be one of the most important items which transfer expanded additional resources to discover pattern, rules and contexts from stage of KM to be exploited in performance stage to edge sustainable competitive advantage. To transfer tacit knowledge from individuals into a repository, firms and organisations often make an attempt to use some kind of community-based electronic discussion (Jarrar, 2002).

Tacit and explicit distinctions as a theory of organisational knowledge creation were borrowed by Ikujiro Nonaka and Hirotaka Takeuchi from Micheal Polanyi which was the chemist and philosopher of science. Nonaka and Takeuchi paid close attention to personal and context-specific dimension of tacit knowledge and transmittable in formal and systematic language of explicit knowledge and pointed out to make tacit knowledge explicit. The model of Nonaka and Takeuchi for knowledge creation gave an explanation to the process of converting tacit into explicit knowledge (Mooradian , 2005)At this point, in our model transform KM to output of sustainable competitive advantage can be considered as an approach to exploit competence of knowledge in terms of deep and rich performance outcomes.

## D. Individual and group decision making

In recent years, organisations have been empowering their nonmangerial employees with job-related decision making. The Gestalt theory of learning literature gives an explanation that the problem we are probably faced with and their solution are related to the relations more than our interpretation of the problem. Potential and productive integration of explicit knowledge is the process of analysis of multiple and   "what-if" cases of a mathematical model to find more reliable and new interrelationships. K-asset (knowledge asset) and K-absence (knowledge absence) besides of data ,meaning and practice can make a distinction between knowledge and IC. At this point, KM is grounded in creative responses of managers into uncertainty rather than only dealing with rational decision making which includes complete information to identify all the relevant options in an unbiased manner, and selects the objective with highest utility, although by regarding that most decisions in the real world do not follow rationality this model cannot be assessed as the best option (Spender, 2006; Robbins & Judge, 2009).

KM by general focuses on the organisational KM and personal KM, and pay close attention to the needs of individuals to learn work efficiency or socialization (Razmerita et al., 2009) can create an appropriate environment for individual and group decision making in terms of improved performance outcomes to exploit opportunity for sustainable competitive advantage.

## E. Communication skills

Communication by four major functions of control, motivation, emotional expression and  information a strong appliance which can be considered as a bridge between organisational knowledge environment and performance to create a sustainable competitive advantage (Robbins and judge ,2009).The term community of practice (COP) as an informal social networks of organisational members within and outside the firm who have similar activities describes an activity system including persons in united action for the larger collection (Ardichvili andWentling,2003; Laudon and Laudon., 2009).COPs can create an environment to reuse knowledge by mentioning community members to useful documents, creating document repositories and information

filtering for new arrivers. Members of COPs, as facilitators of organisations encourage contributions and discussions. Also COPs can reduce the facilities of learning steps for new members by providing contacts to experts and having access to a community's established methods and tools.

COPs are still the main KM application which can yield value for organisation and promote quality of performance outcomes to edge sustainable competitive advantage by self and group education ,conferences, online newsletters and daily experience sharing and techniques of problem solving (Laudon and Laudon , 2009; Chatzkel , 2007) . By regarding to this view, organisations can be empowered by KM implementation to enhance capability, resources and ability through a systematic attitude of collection, distribution, capturing , storing , creating, disseminating and sharing different forms of k-assets.

*F.   User knowledge satisfaction*

Most of the researchers in organisational behavior pay attention to three attitudes as evaluative statements about objects, people or events including job environment, organisational commitment and job satisfaction which KM can fully provide for knowledge workers and knowledge users. Job satisfactions explain a positive feeling about a job which conclude job characteristics evaluation (Robbins and Judgs, 2009).KM by focusing on experience sharing approaches, collection, storage and maintaining of knowledge can improve efficiency ,speed , ability, awareness , profitability, flexibility and adaptability of knowledge users and motives them to promote the level of their performance quality in terms of sustainable competitive advantage. AS employees and organisatinal members grow older, interesting work becomes more of a motivator and the needs for self-respect and respects to the individuals increases (Slaghter, 2007). Management of knowledge mention to attributes of environment to give positive feeling about their expertise, creative skills, and other tasks to improve and enrich their performance outcomes which lead to sustained competitive advantage. Role ambiguity and role conflict as sources of stress are reduced in knowledge environment (Yousef, 2002). High efficiency on performance that Robbin and Judge (2009) describe in terms of self-efficiency theory can be executed in knowledge environment. In this kind of environment we can also pay appropriate attention to organisational justice which Robbins and Judge (2009) describe as an overall perception of what is fair in the workplace. Knowledge as a fluid mix of framed experience, values, contextual information and expert insight can increase dignity, self-respect of organisational members and reduce the sensitivity of knowledge users to unfairness (Nardin et al., 2009).

## IV.   PERFORMANCE OUTCOMES

AS well as Choy et al (2006) aim to identify a competitive list of KM performance outcomes, 38 items for measuring KM outcomes are grouped into: Systematic knowledge activities, Employee development, Customer satisfaction, Good eternal relationships and Organizational success. By more fully attention to the issue, we can find out

other performance outcome objectives include enhance of effectiveness and efficiency , quality (time compression , flexibility , cost reduction and profitability) , behavioral accountability, high responsibility empowerment , and blending of "me-centric" and "we-centric" implementation in teamwork.

KM empowers self-efficiency behavior among employees which leads to effectiveness in performance levels. Businesses continuously look for improving the efficiency in operation to achieve higher profitability which can be provided in knowledge environment (Laudon and Laudon, 2009) . Choy et al (2006) note that effective management of knowledge benefits employees in their current jobs and future condition. With a collective knowledge process, communication is improved among organsational members, and knowledge can be transferred among employees. This improves learning and enhance skills which lead to more innovation and creativity. At this point, employees can perform with high rate of profitability and work effectiveness and in more efficiency in teams empowered to decision making. As such, more and improved efficiency lead to faster responses to organisational key tasks and immediately conclude in solving organisational-wide problems and new opportunity for the sustainable competitive advantage of the organizations can be exploited in this regar

## V.   CONCLUSION

This paper has reviewed transfer stage of KM to enrich performance outcomes of the organizations which lead to sustainable competitive advantage. Authors mentioned to six items and analyzed them in terms of transfer process. It shows there is directly a positive relationship between KMstage a sustained competitive advantage through transfer stage which enrich organisational performance outcomes. The findings of this paper help to promote a better understanding on knowledge environment performance outcomes and competitive environment. . It also helps to interpret how and under which condition knowledge management can improve performance quality of organisational members. It is hoped that corporations and organisations that still invest in KM will gain a more complete insight into rich performance outcomes and excellent vantage points of KM implementations to edge sustained competitive advantage.

In addition, it is hoped that additional conceptual and research papers in the future continue this paper efforts in a specific industry and pay more attention to the benefits of KM and its role in future organisational operations.

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