

A conceptual linkage between knowledge management, competitive advantage and competitive maneuverings of organizations

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Abstract- Knowledge management has emerged important field that captured an attention of research scholar in the field of management as KM promulgated important source of competitive advantage. The basic purpose of the study is to explore conceptual linkage between knowledge management and organization's strategy formulation and competitive advantage. Detailed literature is reviewed to find out conceptual linkage between knowledge management, strategy formulation and competitive advantage. We used resources based view approach to link strategy and competitive advantage as a lens. This research would be fruitful for managers to understand strategic importance of knowledge, knowledge management and knowledge strategy to attain sustainable competitive advantage.

I. INTRODUCTION

Today's companies facing radical and incremental technological advancements, continues changes in customer's taste, preferences, demand and fierce global competition which is creating more turbulence, dynamism and complexity in the world business (Johannessen and Olsen, 2009). The only way to compete and attain distinctive competence to get sustainable competitive advantage is, to more focus on company's strategic planning (Halawi and McCarthy, 2006). Knowledge economy has changed the overall experience of knowledge worker which is more enriched with skills and competencies.

Organizations reconfiguring their Business models to link knowledge management and business strategy. Knowledge acquisition, sharing and application are key sources of competitive advantage (Sheng and chang, 2013). Almost every organization possesses knowledge assets and competing business strategies but often they fail to link both to gain sustainable competitive advantage. Many studies identified knowledge as key source of competitive advantage (Sheng and chang, 2013; Johannessen and Olsen, 2009; Cuganesan and Silvi, 2006; Watanabe and senoo, 2009). Knowledge is latest and important strategy to increase competitiveness of the organization (Bell and Jackson, 2001). Stephen Demming's story about World Bank's transition from large centralized and bureaucratic organization to knowledge management organization is quite impressive. It reveals that what organization has to do to transform itself from conventional centralized and bureaucratic organization to knowledge based or knowledge organization and how overall

business strategy links with knowledge management. Moreover what happens when knowledge based view takes place in the organization whether it is small or large organization (Ruggles and Holtshouse, 1999). Treating knowledge as crucial and valuable asset to gain competitive advantage is getting common (Zack, 1999). Still many people think that knowledge management is only related to IT field. The strong linkage of KM and company's business strategy is lacking. Our basic objective is to identify the linkage between KM and organization's business and competitive strategy, whether or not knowledge management and competitive strategy has link with each other to gain sustainable competitive advantage. We go through from detailed literature on both knowledge management and firm's business or competitive strategy to fit both in order to attain sustainable competitive strategy.

II. MODELS OF STRATEGY

This section discusses the Porter's five forces model and resource based view of the firm (RBV) (Warnerfelt, 1984).

Porters' Five forces model:

Strengths, weaknesses, opportunities and threats (SWOT) analysis is dominating for several years over porter's five forces model. Degree of competition in an industry is determined through five forces model. It also tells us about the competitiveness of the industry and favorability for investors, whether or not enter into a particular industry. Porter's five forces include bargaining power of buyer, bargaining power of supplier, Threat of new entrant, Threat of substitution and rivalry among existing players (Porter, 1979). The model helps the organization to formulate their strategies and analyze the forces that are causes of opportunities and threats in external environment of business. Barney (1995) stated that the organization that identify opportunities abstain from threats, identify and exploit strength and overcome weaknesses would gain sustainable competitive advantage than their rivals.

Firm's Resource Based view

Sustainable competitive advantage is key element in today's hypercompetitive market. Valuable, Rare and inimitable resources are necessary to gain sustainable competitive advantage (Barney, 1991). Resource based view (RBV) has its roots in work of Penrose (1959). Resource based theory delineates that resources and competencies of the firms effect the growth and performance (Penrose, 1959; Barney, 1991;

Mahoney and Pandian, 1992). RBV focuses resources and competencies which are difficult to imitate and pivotal for sustainable competitive advantage (Barney, 1991; Dierickx and coll, 1989; Peteraf, 1993). Firms possess different types of resources broadly tangible and intangible human and non human that help the organization to formulate value enriched organizational strategies (Barney, 1991; Warnerfelt, 1984). Resources that are rare, valuable, inimitable and non substitutable constitute organization's distinctive competencies therefore provided sustainable competitive advantage (Barney, 1991; Prahalad and Hamel, 1990). Intangible knowledge assets provide more sustainable competitive advantage because intangible knowledge assets are difficult to imitate (Hitt, 2001, Akram et al, 2011). Intangible resources like knowledge, tend to add more value to other organization resources and competencies (Hitt, 2011). Barney (1991) asserted that distinctive resources allow firms to formulate and implement their strategies in effective and efficient manner. Furthermore he proposed criteria to analyze, which kind of resources can give sustainable competitive advantage like inimitability, non-substitutability, rarity compared to competition and value delivery for customers. It is understood that knowledge is a vital source to gain competitive advantage (Halawi et al, 2006). Knowledge resources are hard to transfer and imitate, so organization must focus internally to utilize and implement such distinctive resources (Barney, 1991; Prahalad and Hamel, 1990; Mahoney and Pandian, 1992; Collis and Montgomery, 1995; Post, 1997; Markides, 1997). Firm's resource building has greater impact on firm's strategies (Barney, 1996). They guide firms to take effective decisions to gain sustainable competitive advantage (Grant, 1991).

III. KNOWLEDGE MANAGEMENT

Knowledge is still a vague concept and plethora definitions of knowledge can be found in literature of knowledge management. Davenport and Prusak (1998) defined knowledge as it is mixture of human context and information that enable information more actionable.

Sanchez (1996) defined knowledge as ability to sustain the harmonized utilization of resources and capabilities in a way that assures the accomplishments of strategic objectives.

O'Dell and Grayson (1998) defined as "knowledge to be information in action".

Murray (1998) analyzed that knowledge management strategy turns organizational intellectual assets both talent and recorded information in competitive manner. It creates more competitiveness and value for organizations because it develops skills and competencies among managers and employees. They also learn how to enhance capabilities and skills on individual and collective level.

Knowledge management is multi-disciplinary field ranging from cognitive sciences, artificial intelligence, technology, innovation process, and expert to knowledge based system (Murray, 2000). KM may reveal to convergence of ideas promulgated over the years including RBV theory, core competencies, balance scorecard, information management, dynamic capabilities view, information mapping, learning organizations and intellectual assets (Corrall, 1998). There are

various aspects and methodologies which focus on different beliefs of KM that highlight knowledge is an important aspect to be handled. It focuses on to acquire right knowledge at the right time in the right form and disseminate and share to the right person (Halawai et al, 2006). KM is definitely an organizational process that aims to make centralize knowledge source in the organization that absorb, distribute, assimilate, share, retrieve and reuse the interior and external, explicit and tacit knowledge to bring innovation in the organization such as the product, process and people of organization (Akram et al, 2011). Organizations also need to focus on appropriate KM infrastructure as theory suggests, its process is simple but its implementation is quite complex task. Firms must describe clear policies that direct the implementation of KM infrastructure. Organization should develop supportive culture as well which places value on culture (Shepard, 2000). Finally we need to understand that KM solutions are just 10 to 20 % related to technology efforts but culture and behavioral and managerial efforts are major to it.

Strategy formulation and KM

Grant (1991) defined strategy as "The match an organization makes between its internal resources and skills, and opportunities, and risk created by external environment".

"Strategy comes from the interaction between firm and its environment as well as knowledge worker and management" (Nurme, 1998).

We can define strategy as long term direction of firm to gain competitive advantage by utilizing its resources and competencies in highly turbulent and dynamic environment.

The fundamental question is how strategy or strategy formulation and knowledge are linked with each other?

Fahay (1996) asserted that strategy formulation and knowledge both are multifaceted, dynamic and complex concepts. These are not simple concepts to be understood and implemented. A firm's strategy shows the current strategic position and future intent of the organization. Strategy reveals the strategic intent of the organization, whether organization would pursue with the same strategy, resources and competencies in future or it would change everything.

Organization's knowledge strategy includes diverse fields like customers, competitors, bankers, technology, suppliers, financial and marketing intermediaries. Firms should implement its strategy in a way that knowledge could make it thrive. Organization can analyze its strategy in a way that how strategy takes benefits of exiting knowledge assets. Organization must identify and analyze the possibilities of knowledge and strategy linkage to attain sustainable competitive advantage. Zack (1999) suggested that, to exploit the linkage of strategy and knowledge organizations must formulate their strategic plan, identify the knowledge gap and then fill that gap through knowledge strategy fit.

IV. KM STRATEGIES

The fundamental purpose of knowledge management strategy is knowledge creation, codification, transfer and implementation

of explicit and tacit knowledge within an organization to get right information, at the right, in a right form and to the right person. There are various characteristics of knowledge management strategies

- Develops understanding about organization knowledge assets, where are they reside
- Clearly identify and delineate the role of knowledge in value creation
- Having various integrated projects expanding over time, quick wins and strategic benefits (Du Plessis, 2007).

There are four major strategies to manage knowledge in organization including culture, technology, leadership and measurement (Davenport and prusak, 1998; O’Dell and Grayson, 1998; Davenport, 1999). Knowledge strategy explains the needs, aspects, dimensions and actions to attain objectives. A knowledge strategy is different from a knowledge management strategy, which is a road map of a firm responsible for management of knowledge and various knowledge related issues to enable knowledge management, both are crucial for organization to get sustainable competitive advantage, that is why must be aligned continuously (Hofer-Alfies, 2003). Formulations of KS is relatively easy and simple (clark; 1998) process include , perfect scenario for current and future intense competitive environment, Find with respect to the future profitable, Identify personnel within organization who possess the knowledge or having knowledge acquisition capability and model companies efforts on footsteps of those companies who are conceptually ideal. An organizational KM strategy must reveal its competitive strategy. KM strategy must drive by competitive strategy (Civi, 2000). Mckinsey Quaterly (1998), “the first step in framing a knowledge strategy is to understand

four characteristics specifically: extraordinary leverage and increasing returns since knowledge is not subject to diminishing returns, uncertain value since the value of an investment in knowledge is frequently hard to guess, uncertain value sharing and fragmentation, leakage and the need for refreshment”.

Wig (1997) explored five underlying knowledge centered strategies, some organizations practice it as business strategy where main attention is on capturing creation sharing, renewal and implementation in all areas and activities of organization. Some organization takes it as intellectual asset management strategy which include patents customer relationship, organization structural capital and enterprise management level. A third approach personal knowledge strategy. It focuses on to highlight each person liability about knowledge management. Knowledge creation strategy focuses on overall organizational continues learning, research, innovation, learn from past, and acquire fresh and unique knowledge to enhance competitiveness. Knowledge transfer strategy is related to transfer knowledge across the organization and to adopt and acquire best practice. Drew (1999) found that how business managers can use KM into their strategy formulation process. He suggested that organization must build KM in their various activities like, strategy formulation, vision, mission, core competence and environmental scanning. He explores four categories of business knowledge.

- 1). What we know, we know,
- 2). What we know, we don’t know.
- 3). What we don’t know, we know
- 4). What we don’t know, we don’t know

Table 1

Knowledge awareness/ knowledge content	1. What we know we know	2. What we know we don’t know	3. What we don’t know we know	4. What we don’t know we don’t know
Emphasis	Knowledge sharing, access and inventory	Knowledge seeking and creation	Uncovering hidden or tacit knowledge	Discovering key risks, exposures and opportunities
Tools	Benchmarking, communities of practice	R&D, market research, competitive intelligence	Knowledge maps, audits, training and networks	Creative tension, audits, dilemmas, complexity science

Source: Adapted from Drew (1999)

He added that several knowledge initiatives and program are related to the first of these. What we know, we know. It means sharing best practices within the organization. From strategic perspective its fourth type of knowledge what we don't know, we don't know that creates fierce opportunities and threats. When organization manages these four areas and develops knowledge dimensions to use strategy tools, organization take first and important initiative to develop knowledge based strategy where, distinctive knowledge driven factors of competitive advantage can provide inimitability for competitors and deliver value to customer beyond expectations. Broadbent (1998) stated that objective of an organization to be more competitive due to ability, adoptability and innovation of its employs. They can mitigate loss of intellectual capital, decreasing cost by attaining economy of scale through getting information from outside, Control wastage of knowledge based activities, Increase productivity by disseminating and sharing knowledge and above all through KMS organizations want to get competitive advantage in market place (Knapp, 1998).

Zack (1996) stated that, by performing SWOT organization can give support to their knowledge resources while formulating their business strategy. A survey was conducted in 1999 which was conducted on 200 IT managers. Those 94% managers consider KM as a strategic issue for organization (Stahl, 1999). There are six core strategies through organizations use to compete more efficiently and effectively with knowledge by strengthening and promoting in culture of information sharing (APQC, 1999). These strategic factors have greater impact on employee's readiness to share knowledge and ties and connection with core cultural values, business strategy, integration with daily work, role of human networks and role of leadership, reward and resignation. Organization should give incentives to gain competitive advantage (1996). Bierly and Chakrabarty (1996) empirically tested various generic strategies to acquire and develop knowledge focusing on US pharmaceutical industry. Several authors worked on knowledge and strategy integration in recent years.

Author(s)	Category
Jalal, et al. (2013)	Competitive Advantage
Sheng et al. (2013)	Competitive Advantage
Sigalas, et al. (2013)	Competitive Advantage
Kamukama et al. (2011)	Intellectual Capital and CA
Johannessen and Olsen (2009)	Knowledge Management and CA
Watanabe and Senoo (2009)	Knowledge Management and CA
(Jon-Arild, 2009)	

V. KNOWLEDGE MANAGEMENT STRATEGY AND CHALLENGES

A knowledge management strategy is critical to successful programs of knowledge management (Kavindri, 2005; KPMG, 2000; Parlbly and Taylor, 2000; Robertson, 2005). Challenges are same for knowledge management strategy and organization strategy in today's competitive world.

Alignment of organization vision, strategic objectives and strategies with organization strategic business units and with individual knowledge workers efforts are major problems. Measurement of key performance indicators includes, top management should clearly formulate the strategic objectives and share with SBU, moreover aligned them with operational level strategies (Clark, 1997). In same manner knowledge should be aligned with business process and decisions making form strategic to operational level (Shaw and Edwards, 2005; Greiner et al. 2007).

Business process is link to organizational business strategies, so it's logical for knowledge management strategy to focus on business process (Duplessis, 2007). Knowledge strategy and business strategy linkage involve various classifications like core, support, and strategic knowledge (Osborne, 2004) exploratory and exploitative (Curado, 2008; Earl 2001) and ephemeral and core (Leseure and Brookes, 2004). Knowledge alignments are not limited to just classification but it goes on further, to focus on strategic knowledge on strategic process, support knowledge on support process and core knowledge on core process (Shaw and Edward 2005).

There are various companies that demonstrated zest and commitment to link knowledge management and their corporate strategy, business processes, organization culture and HR practices hence they reap sustainable competitive advantage in their respective industry and areas like, Siemens, GE, World bank and IBM etc. But among these organization Siemens most successfully linked and aligned their KM strategy and corporate strategy to gain sustain able competitive advantage.

Siemens is diverse multi level and large organization that is possessing verity of products and businesses. Technology adoption and implementation makes Siemens different form its rivals. Siemens adopted knowledge management relatively early as compare to its competitors. Siemens commenced and accomplished various knowledge management projects on groups, regions and global level.

Siemens is facing various challenges related to global knowledge based business and companywide knowledge management solutions to disseminate or share existing knowledge and producing new knowledge (Hofer-Alfeis, 2003). KM includes knowledge strategy sharing, competence building, knowledge creation and implementation in all areas of organization structures culture and linking KM strategy with corporate strategic planning. Siemens transformation from conventional to KM organization is quite impressive. KM implementation at Siemens is quite evident in the form of its decentralized approach, competency building initiatives linkage of knowledge with its strategic planning. Due to these initiatives knowledge has embedded in culture and structure of the company. Siemens products and services are more knowledge based. Siemens was started KMS (knowledge management strategy process) to determine and formulate strategy and action plan.

VI. DISCUSSION AND CONCLUSION

Knowledge based economy is very reality of today's world. There are various issues, problems, and challenges regarding implementations and measurement of knowledge management

strategy, but many organizations including small medium and large adopting it. We try to create a conceptual linkage between KM strategy and business strategy of the firm by reviewing literature on KM and business strategy utilizing lens of RBV. As economies have converged from technology driven economies to knowledge driven economies, fundamental resource to be remain in market and get sustainable advantage is knowledge linkage of KM strategy and corporate business strategy.

A company discuss in current study is distinct in implementation and alignment of KMS and business strategy. So company reaping tangible benefits. The linked KM strategy and business strategy in way, it's successfully nurture knowledge sharing, acquisition and implementation culture that drives innovation, competency development, agility, superior performance and consequently became sustainable competitive company. Advance organizations showed formulate and implement strategies in a way that can give sustainable competitive advantage assets of the organization. Many organization fail to understand strategic importance of their knowledge assets in maintain sustainable competitive advantage. They fail to identify strategic aspects of KM. KM must be linked to fundamental or core strategy of the organization. Many organization fail to integrate KM strategy and business strategy due lake of clearly stated business model. Companies must have reliable both practically and theoretically business model to link KM strategy.

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