

**The Mediating Role of Organizational Learning between Knowledge Management
Success Factors and Organizational Innovation: A Conceptual Framework**

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Abstract. This study aimed at investigating the role of organizational learning (OL), between organizational innovation (OI) and the critical success factors of knowledge management (CSFsKM). The chief idea behind this study was that the CSFs of KM has a direct effect on OI and indirect effects through OL. A serious gap has been explored, by an intensive assessment of previous study, in the literature on relationships among CSFs of KM, OL and OI. Subsequently, based on the knowledge base view (KBV) theory, this study has attempted to fill the gap between KME and OI with role of OL for competitive advantage. A conceptual framework has been proposed in this research study. This framework has been considered as a contribution towards the enhancement of the related literature. Furthermore, this study is a stepping stone for further research on finding the importance of CSFs of KM with respect to enhancing the OI.

Keywords: Knowledge Management (KM), critical success factors of Knowledge Management (CSFs of KM), Organizational Learning (OL), Organizational Innovation (OI).

1 Introduction

Nowadays, the speedy variations firms have to encounter means their knowledge turned out to be outdated and do away with their prevailing capabilities. With respect to this perspective, firms need to be able to constantly renew their knowledge (Sanz-Valle et al., 2011). The role of OL in that renewal has been highlighted by the literature (Sinkula, 2002). The reason behind this concept that learning is critical for company success is it enables the development of new processes and products (Baker and Sinkula, 2002). The OL and its output, the knowledge, are commonly quoted as antecedents of innovation (Kogut and Zander, 1992; Leonard-Barton, 1995; Nonaka and Takeuchi, 1995; Carneiro, 2000; Darroch and McNaughton, 2002; Darroch, 2003; Crossan

and Apaydin, 2010). The companies which are capable of reintroducing their knowledge, as per the basic assumption here, stand a healthier chance of comprehending the consequences of the variations in their surroundings and are better fitted than competitors to react better and faster to them (Sinkula, 1994; Slater and Narver, 1995; Tippins and Sohi, 2003).

Based on the association between innovation and OL and the recognition that innovation is essential as a foundation of competitive gain (Garvin, 1985; Stata and Almond, 1989; Dodgson, 1993; Brockman and Morgan, 2003), numerous studies have attempted to ascertain the factors of OL (Sanz-Valle et al., 2011). The KM is one of the variables of high impact on both. Several researches indicated that KM is a main component of the OL process (Victor et al., 2006; Liao and Wu, 2010). So far the

connections between innovation, learning and KM have scarcely been inspected together in the literature, while the significance of these issues has been extensively accepted (Liao and Wu, 2010), mainly from an empirical view. The OL is linked to innovation, as per some evidence (Forrester, 2000; Darroch and McNaughton, 2002; Jang et al., 2002; Scarbrough, 2003; Liao et al., 2012). The issues of KM are complex as demonstrated by previous researchers. Some of these researches are associated with the e-business, and some are with the competitive advantages (Lin and Lee, 2005); few are connected to OI, and some are OL (Davenport, 1998; J. Darroch, 2005), KM is mixed with OL (Victor et al., 2006; Liao and Wu, 2010), and the affiliation between OL and KM is not evident (Liao and Wu, 2010). Many scholars by reviewing the past literatures carried out the research to understand the association among OL, KM and organization innovation individually. Some studies discussed the quantitative numbers and practical results (Darroch and McNaughton, 2002). The OI, OL and KM should not be discussed individually, based on the theory (Goh, 2005).

However, the gap among KM processes, OL and innovation has been filled (Liao and Wu, 2010). But a limited or no papers have been found which investigated the relationship between critical success factors of KM, OL and OI. In a nutshell, the aim of this research was to address the issue of the CSFsKM and to explore its association with OL and OI. Subsequently, there are two facets of this affiliation, (1) the direct relation between the factors of KM (2) the indirect relation of the success factors of KM with OI via OL as mediator variable.

2 Literature Review

2.1 Organizational Innovation (OI)

Many alternative models and conceptualizations for the analysis of observed

data have been provided by the growth innovation literature. Accordingly, an innovation can be a novel service or product, a new administrative system or structure, a new production process technology, or a new program or plan relating to organizational members. Hence, innovativeness, or OI, is usually measured by the level of the acceptance of innovations, even though other measures have been used by a few studies (Damanpour, 1991).

It is essential to understand the types of innovation and their features because a specific type of innovation requires unique and sophisticated responses from an organization (Hurmelinna et al., 2008). Researchers have developed a typology of innovation in different ways. In the innovation literature, either there was a similar name used for different innovations or the same innovation categorized into different typologies (Garcia and Calantone, 2002). Although previous innovation studies suggested several typologies of innovations, the most prominent type of innovation comprises the following categories: technological versus administrative innovation, incremental versus radical innovation, and product versus process innovation (Cooper, 1988).

2.2 Relationship Between critical success factors of Knowledge Management (CSFsKM) and Organizational Learning (OL)

A wide range of factors that can effect on the success of KM implementation has been

Cited in the literature. For example, much has been express about culture, information technology (IT), leadership, human resources management (HRM) and organizational structure (OS) as significant considerations for its achievement. CSFs can be defined as “areas in which results will ensure successful affordable performance for the organization”, if they are reasonable (Rockart and Morton, 1984). Saraph et al. (1989) considered them as

those critical areas of managerial planning and action that must be taught in order to gain effectiveness. From the point of view of KM, they can be regarded as those activities and practices that should be addressed in order to ensure its successful implementation. These practices would either need to be nurtured if they already existed or be developed if they were still not in place. Based on the above definition, CSFs in this study are conformed as those internal factors which are controllable by an organization. This study emphasized five CSFs of KM which included OC, OS, IT, human resources management (HRM) and leadership (Wong and Aspinwall, 2005; Choi and Krause, 2006; Rezaei et al., 2014).

OL is defined as a number of organizational actions such as information interpretation, information dissemination and knowledge acquisition and memory that influence constructive organizational change unconsciously or consciously (Templeton et al., 2002). According to literature OL comprises of three chief scopes: open-mindedness, vision sharing and commitment to learning (Baker and Sinkula, 1999; Calantone et al., 2002; Lee and Lee, 2007; Liu et al., 2008; Yang et al., 2009; Razi and Karim, 2010). Schein (2010) suggested that lack of communication among the different cultures of organization may cause the OL failures. Also, OC could serve as a standard of cognitions or interpretations and so would affect the effectiveness of OL and behavior (Mahler, 1997).

Kululanga et al. (2001) argued OL works as a catalyst for employing an OL culture and the OL is systematically improved by learning culture. The OC can be regarded as a knowledge warehouse with the abilities of processing and storing information, while OL plays a significant part in confirming that the knowledge warehouse is constantly updated and replenished to allow efficient answers to variations in its competitive environment (Lemon and Sahota, 2004). OC is positively connected to OL, as suggested by Janz and

Prasarnphanich (2003). To analyze how the OC impacts KM, OL, and business performance, Lopez et al. (2004) claimed that collaborative culture impacts OL, which consecutively affect business performance. In addition, Czerniewicz and Brown (2009) found that OC has a positive effect on the OL. Based on the statements mentioned earlier, it can be concluded that OC affects OL.

The OS is described as “the set of all the ways in which the work is divided into different tasks, achieving coordination” (Mintzberg, 1993). This term is also defined by the (Child, 1972) as “the formal allocation of work roles and the administrative mechanisms to control and integrate work activities including those which cross formal organizational boundaries”. This structure replicates the recognized scheme of systems, relationships, procedures, and communications and decision processes (Zerilli, 1976), that permit an organization to achieve its objectives and develop its functions.

The OS also replicates the mode in which knowledge and information is disseminated within an organization that influences the productivity of their utilization. As a result, it considerably impacts the coordination and distribution of the resources of the company, the social interaction and the communication processes between organizational members (Chen and Huang, 2009). Thus, the alignment of OS facilitates or impedes the capability of the company to adjust to change, to improve, to learn or to innovate its capacity to create added value for its consumers.

According to Venskus and Sakalas (2007) OS is a significant feature in KM and learning organization is not possible to grasp without relevant organization management structures. A number of scholars simulated the effect of interpersonal network structure on organizational-level learning: moderate quantities of cross-group networking were linked to greater equilibrium performance points (Fang et al., 2007). The OS complication is an important factor in the growth of

recognized absorptive centralization, formalization weaknesses and capacity connected to recognized absorptive capability (Fernández Alarcón et al., 2004).

Robey et al. (2000) with respect to the relationship between OL and IT distinguished two streams of research: studies related to the design of IT applications to assist OL; and studies that apply OL theories to the process of using and implementing IT in organizations. The former is further connected to KM than the latter. These streams have grown separately from each other. Nevertheless, they are theoretically same: OL enables easier IT acceptance while the use of IT improves OL competences.

OL can be improved with IT as it can be used as a device to convert tacit knowledge into explicit knowledge (externalization) in addition to transforming explicit knowledge into further complicated sets of explicit knowledge (combination). Besides, for creation, diffusion, communication, codification, analysis, storage and systematization of knowledge and information, IT is a vital instrument. Moreover, "IT is widely employed to connect people with reusable codified knowledge, and it facilitates conversations to create new knowledge" (Lee and Choi, 2003). Marwick (2001) reviewed KM technology, with this orientation, using as a framework Nonaka (1995) model of organizational knowledge creation. With the greater use of collaborative and individual IT, small businesses are capable of acquiring bigger OL levels.

However, since the perfect IT to assist such transmission is obtainable, the knowledge cannot essentially be circulated liberally firm-wide. Also, technology does not change communication patterns and information sharing, as concluded by Vandebosch and Ginzberg (1997) work regarding one of the most common groupware systems. Chourides et al. (2003) found IT has a constructive influence on OL and that this association is reinforced if the suitable culture subsists. When enterprises

interrelate with their environment they captivate information, as highlighted by Davenport (1998), and transform it into knowledge and based on it, take action in combination with their values, experiences and internal rules. Those enterprises that are devoted to KM nurture a culture and job environment that assist constant learning. A number of authors have deliberated individual learning as the foundation for learning at the organizational level (Nonaka, 1994; Nonaka, 1995). The explicit and tacit knowledge obtained by individuals can support the formation of shared and collective knowledge within the organization and groups.

Tichy et al. (1982) define human resource management (HRM) as the system by which individuals are recruited into the organization to perform a specific task whereby performance is monitored and rewards given to keep the individuals productivity. Many studies have showed that HRM plays a critical role in facilitating OL. For example, Lopez et al. (2004) find out that selective hiring, strategic training and employee participation in decision-making positively impact OL. It is broadly accepted that adult learning is the foundation to HRM functions, which targeted to support constant feature and Performance improvement, KM, OL, and modify management as well as learning organizations (McLean, 2006). Bhatnagar (2007) links the relationship between the OL with strategic HR roles as well as the organization commitment.

Simultaneously, it is important for our work to highlight that transformational leadership and OL are also related. This condition implies indirect influences on OL, the impacts that have usually been absent from previous research analysis. Many authors have claimed that there is a relationships between leadership and OL (Senge, 1991). Traditional leadership has been characterized as highly individualistic, systematic and making awkward the learning of organizational teams; whereas, transformational leadership is focused on active promotion of

employees' involvement in collective decisions and activities. Transformational leaders should be able to team up and provide them the direction, the energy, and the support for processes of change and OL (Blackler and McDonald, 2000).

2.3 Relationship Between Organizational Learning (OL) and Innovation (OI)

The increasingly competitive and dynamic environments have been witnesses, in which OI establishes the basis for nourishing competitive benefits (Nonaka, 1991), along with the key to survival of the organization (Damanpour, 1991; Hurley and Hult, 1998). This OI rests on the knowledge base which the organization owns and created by OL (Cohen and Levinthal, 1990; Nonaka, 1995; Nonaka and Takeuchi, 1995). The knowledge is a strategic variable not just in new firms that create new markets or bring together new products but also in previously established firms that essentially innovate constantly to cope with the threat initiated by the disturbance of new technologies, for instance. It is essential to motivate the development of aspects that initiate innovation and facilitate the continuous hunt for and introduction of new products, ideas, services, processes, systems, programs and policies before it is initiated by the other firms in the environment (Lloréns Montes et al., 2005).

The presence of a constructive association amid OL and OI has shown by recent diverse studies (Calantone et al., 2002; Aragón-Correa et al., 2007). OI typically instigates with the production of a new type of knowledge inside the firm (Demarest, 1997). OL, a process connected to the expansion of new knowledge (Huber, 1991), consequently impacts OI as knowledge formation increases the introduction of new services and products (Smith et al., 2005).

OL "supports creativity, inspires new knowledge and ideas and increases the potential to understand and apply them, favors

organizational intelligence and (with the culture) forms a background for orientation of OI" (García-Morales et al., 2007). The introduction of new services and products is enabled by such learning, along with the development of new technologies and markets, and capability of firms to change and adapt to cope with the new market demands (Smith et al., 2005). OL can be internally focused, market focused and/or relationally focused, but it essentially impact OI (Weerawardena et al., 2006).

On the one hand, along the aforementioned lines, it can be observed that learning is a precursor of innovation (Hurley and Hult, 1998) and, on the other hand, firms that use and create knowledge effectively and constantly are those who are most competent to innovate satisfactorily and rapidly (Cavusgil et al., 2003). It is necessary for organizations hold the capabilities essential for a learning organization or for progressing with the aim of attaining these capabilities (Gilbert and Cordey-Hayes, 1996). Moreover, organizations with greater levels of assurance for learning have a tendency to attain much better innovative activity and orientation (Ussahawanitchakit, 2008). Organizations should have a greater degree of effective OL of innovation to become a higher precedence in firms oriented to new technologies (García-Morales et al., 2007).

OL overall comprises an assurance of learning in itself, exchange of knowledge and an open mind. These abilities stimulate a set of knowledge enhancing and knowledge-questioning the values that bring about the development of innovative technologies, services and products, along with the investigation of new markets (Slater and Narver, 1995; Keskin, 2006).

2.4 Relationship Between critical success factors of Knowledge Management (CSFsKM) and organizational Innovation (OI)

KM is commonly recognized as a significant antecedent of innovation. In the literature, effective KM has been identified as one technique for improving innovation. Although numerous researches have stated the KM as antecedents of innovation but no one has explicitly inspected the association between the two concepts. J. Darroch (2005) and Kotter (2008) identified that the ideal culture for organizations chasing long-term innovation in a vibrant environment is an adaptive, learning culture – a culture that nurtures and fosters innovation. In the innovation process, as Muffatto (1998) suggested that the establishment of connected professional knowledge and an innovative climate and competences are required to help innovation activities.

Moreover, Tseng (2010) contended that OC is a vital building block for generating a “knowledge friendly culture,” that bring about positive results for example improvement of OP and more innovation. In addition, he illustrated that OC characteristics for instance common cultures, trust and extensive ideas of productive work have important contributions in the effective KM application. A positive relationship is examined by Liao et al. (2012) between OI and OC and this association impacts on competitive advantage.

A comprehensive classification of the four types of innovation linked to the KM system is given by Kasper (2008): A great amount of innovation is connected to decentralized KM systems; it is implicit that the diverse innovation associated with the different OS from the bureaucracy to the vastly dynamic and flexible. The project-type of organization that is team-based and delivers the flexibility that best fits new process or product development. Machine bureaucracy that fits complicated

integrated processes depends on specialist-individuals for innovation.

The collaborative nature of the innovation process calls for organizational mechanisms and structure to confirm the suitable connections among the several institutions that constitutes three-dimensional systems of innovation (Fischer, 2006). A mission-oriented structure is founded on a shared vision and articulated mission can deliver effective innovation (Ezra, 2005). The centralization negatively influences investigative innovation for using informal (connectedness) and formal (centralization and formalization) coordination mechanisms, while formalization positively impacts manipulative innovation. Also, connectedness is a significant antecedent of both exploitative and exploratory innovation (Jansen et al., 2006).

The significance of technology absorptive capacity in OI has been indicated by many authors. Lin and Germain (2003) and García-Morales et al. (2007), for instance, indicated that the technology absorptive capacity ‘is a critical component of successful innovation’. The technological absorptive capacity of an organization includes changes in the interaction mechanisms, the OC, technology diffusion channels and investment of R&D resources. These variations have a great influence on OI (Lin et al., 2004). Various organizations have neither the capability to innovate in advance of the rest nor the capacity to recognize the need for innovation. These organizations are branded by less challenging and bold climates and cultures that neither help nor are rich in technological concepts. Other organizations, in contrast, hold a high level of technology proactively that provides them the flexibility and openness essential to realize and conceive OI, since these organizations are aware of the significance of innovation. These organizations are additionally vulnerable in their technological behavior and perspectives. They inspire planned risk-taking and demonstrate

substantial differences of internal debate and opinion.

Writers such as Miller and Friesen (1982) highlighted the strategy over the structure or environment as the key strength for OI. They differentiate between entrepreneurial and conservative organizations with respect to the role that innovation plays in every firm's strategy. OI, in the first group, occurs only in reaction to technological threats and challenges; it only happens if desired. The second group takes OI as central, a natural and vital element of strategy.

Being Proactive is one of the necessary constituents of innovative strategy, which is described formerly as the firm's capability to start changing in its strategic policies concerning engineering, entrepreneurial and administrative activity instead of responding to occasions (Aragón-Correa, 1998). The engineering aspect specifies the technology used for developing competitiveness. Most of the technology proactive firms are ready to invest greatly to increase their technological leadership, whereas the few technology proactive firms merely spend on new technology if they are persuaded by its prospective advantages. Therefore, most proactive firms are more innovative than firms enusing other types of strategies. Technology productivity allows flexible technologies proficient of reacting rapidly to change (Aragón-Correa, 1998).García-Morales et al. (2007)indicated that technology effect innovation positively and attain competitive advantages. Technological firms not only pursue to familiarize themselves to and learn from the technological environment but similarly create innovative technological changes and learn from them.

Ulrich (1990) suggested that HRM facilitates the formation and development of organizational capability, thus, effective HRM could improve an organization's innovation ability through employee empowerment. Similarly, Zanko et al. (2008)investigate a

detailed exploration of the relationship of innovation with HRM concerning absenteeism and internal politics. This study finds out that product innovation is related to HRD practice. It has also been advocated to implement HRM which are drivers for execution of organizational strategic plans in order to improve or refresh employees' knowledge, skills, abilities and motivation. In addition, based on the data accumulated from 35 European manufacturing companies, find HRM enhances organizations' OI ability.Jiménez-Jiménez and Sanz-Valle (2008) also confirm that HRM enhances innovation.

Leaders play a significant role in shaping firms' potential to generate innovations by reassuring a proper environment and decision making that promote successful generation and implementation of knowledge. The analysis of firm leaders' characteristics (e.g., education, background, personality, or attitudes) has created broad attention from innovation researchers (Storey and Barnett, 2000). Especially Style of leadership also has an important influence on innovation (Harborne and Johne, 2003). Transformational leadership, which has been compare with traditional_ or transactional_ leadership, includes a wide strategic sight about the benefits of change and adaptation, significant invest in a communicative culture, By paying attention to the development of people, and acceptance of mistakes (Hult et al., 2000). It is important to emphasize that one of the thing that strongly influence managers capability to promote this kind of leadership in an organization is their perceptions about their own roles in their organizations.

2.5 Relationship Between critical success factors of Knowledge Management (CSFsKM) and Organizational Learning (OL) and organizational Innovation (OI)

As discussed earlier, CSFsKM includes OC, OS, IT, HRM, and leadership. KM is an

important input and OL is a key process then OI, is a critical output. Based on literature review, KM capabilities, OL and OI should not be discussed separately (Goh, 2005; Liao and Wu, 2010). Without good capability of OL, an organization cannot retain important KM practices and increase innovation. According to Hurley and Hult (1998), higher levels of innovativeness in the firm's culture are related to increasing capability for innovation to grow competitive gain. To assist OL, a culture inspiring change is a critical aspect. Particularly in such competitive environments, an organization requires a resilient adaptive culture to encourage mutual learning and cooperation with its members (Daft, 2001). Weiling and Wei (2006) concluded that effective learning depends on a culture of openness and mutual trust. Innovativeness is part of OL, which is the antecedent to innovation. Lynn (1999) suggested that OC can affect OL and organization's capabilities and thereby lead to innovation and change. The development of OL is encouraged by collaborative culture which has an important influence on business performance, at the same time (Lopez et al., 2004). In empirical studies, Sanz-Valle et al. (2011) examined the role of OC as a cause of the OL and the influence of OL on technical innovation. The two kinds of OL (hierarchy and adhocracy) as shown by the results, have an indirect influence on technical innovation and OL facilitates the associations amid the previous two variables.

Liao et al. (2012) in Taiwan's insurance and banking industries investigated the associations amongst OI, OL, knowledge acquisition (KA) and OC. The OL works as a fractional facilitator between OI and OC as indicated by the research results. Furthermore, it was found in this research that OC influences innovation and OL via KA. Moreover, on both OI and KA, OL has a complete intermediation influence. The role played by IT in (OL) deliberated as a course of knowledge formation and defined by the collaboration of flows and stocks variables, as per the assessment of Jimenez et al. (2007).

Also, in which ways OL and IT impact both the development of the technological distinctive competencies (TDCs) and business performance was also examined by them, in addition to the former's impact on directing the firm towards healthier results. The result shows that influence of IT on performance (Bagheri et al., 2014; Bagheri et al., 2013; Bagheri et al., 2012) take place by the indirect mediation of OL (Rezaei et al., 2014).

Teresa et al. (2012) analyzed the impact of higher management assistance of technology that affects OL, technological distinguishing capabilities and the creation of technological expertise. The impact of OL and technological distinguishing capabilities on OI was also examined by the research and revealed the way in which organizational performance is influenced by all of these variables. Results showed that (1) OL and technological distinguishing capabilities clearly influence OI, indirectly and directly via OL; (2) top management assistance clearly impacts the OL, technological distinguishing capabilities and the creation of technological expertise.

A global model is formulated by Victor et al. (2006) to examine in what ways technology proactivity and technology absorptive capability impact OI and OL, and in what ways these vibrant abilities influence organizational performance. All of hypothesizes in their study were supported. The results also showed that OI seems to be effected intensely by technology absorptive capability on OI owing to OL.

Aragon-Correa et al. (2007) inspected the relationship between leadership style, OL, OI and organizational performance and the result indicated that leadership style, a distinctive feature, and OL, a collective process, simultaneously, positively and deeply affect firm innovation. OL had a stronger direct influence on innovation than CEO transformational leadership for our sample; never the less, leadership had a strong and highly significant influence on OL and indirectly affecting firm innovation. Moreover,

innovation and OL positively and significantly influenced performance. But, interestingly and primarily through innovation.

Testing Center et al, (2011) explored the relationship among HRM, OL, OI, knowledge management capability (KMC), and organizational performance (OP), to find a way of improving organizational performance due to learning and knowledge. The results indicated that HRM strategies led to better OL, OI, and KMC, which ultimately contributes substantially to succeed organizational

performance; OL make OI better and accumulates KMC; OI which, contributes to the establishment of organizational development results in KMC development. And technological companies should apply organizational knowledge in order to improve organizational performance. Thus based on these statements, it can be concluded that CSFsKM affect OI through OL. Table 1 shows the hypothetical justification for each variable in this study.

Table 1. Theoretical Background of Propositions

<u>Variables</u> OC: Organizational Culture OL: Organizational Learning OS: Organizational Structure OI: Organizational Innovation IT: Information Technology HRM: human resource management LS: leadership style	Theoretical Background
OC → OL	(Kululanga <i>et al.</i> , 2001),(Janz and Prasarnphanich, 2003),(Lopez <i>et al.</i> , 2004), (Czerniewicz and Brown, 2009), (Lemon and Sahota, 2004), (Liao <i>et al.</i> , 2012)
OS → OL	(Fiol and Lyles, 1985),(Dodgson, 1993), (Venskus and Sakalas, 2007), (Martínez-León and Martínez-García, 2011), (Nicolini and Meznar, 1995), (Marengo, 1992)
IT → OL	(Goodman and Darr, 1998), (Vertegaal, 2003),(Carley, 1992),(March, 1991),(Enriquez <i>et al.</i> , 2002),(Kane and Alavi, 2007)
HRM→OL	(Lo´pez et al,2006), (McLean, 2006). (Bhatnagar ,2007),(Senge, 1990), (Senge et al., 1994),(Tushman& Nadler, 1986), (Adair, 1990; Bass, 1991), (Blackler& McDonald, 2000),(Nadler &Tushman, 1990)
LS→OL	(J. Alberto Arago´n-Correa et al,2007).
OL → OI	(Fiol and Lyles, 1985), (Senge, 1991),(Huber, 1991),(Slater and Narver, 1995), (Stata and Almond, 1989), (Cohen and Levinthal, 1990),(Nonaka, 1991), (Leonard-Barton, 1995; Nonaka and Takeuchi, 1995), (Hage, 1999), (Schön and Argyris, 1997), (Sinkula <i>et al.</i> , 1997), (Liao <i>et al.</i> , 2012), (Hsiao and Chang, 2011), (Sanz-Valle <i>et al.</i> , 2011), (Kogut and Zander, 1992)
OC → OI	(J. Darroch, 2005), (Kotter and Heskett, 1992),(Muffatto, 1998), (Chang and Lee, 2007),(Tseng, 2010), (Rezaei et al., 2014)
OS → OI	(Kasper <i>et al.</i> , 2008), (Fischer, 2006), (Ezra,

	2005), (Jansen <i>et al.</i> , 2006), (Hao <i>et al.</i> , 2012)
IT → OI	(García-Morales <i>et al.</i> , 2008), (Lin <i>et al.</i> , 2004), (Miller and Friesen, 1982), (Aragón-Correa, 1998), (Aragón-Correa <i>et al.</i> , 2007), (lin and Germain, 2003)
HRM→OI	(Hult <i>et al.</i> , 2000; Storey and Barnett, 2000; Jiménez-Jiménez and Sanz-Valle, 2008; Zanko <i>et al.</i> , 2008)
LS→OI	(Aragón-Correa <i>et al.</i> , 2007)
OC → OL → OI	(Goh, 2005),(Liao and Wu, 2010), (Hurley and Hult, 1998), (Weiling and Wei, 2006), (Lynn, 1999), (Lopez <i>et al.</i> , 2004),(Liao <i>et al.</i> , 2012), (Sanz-Valle <i>et al.</i> , 2011)
OS → OL → OI	(Hao <i>et al.</i> , 2012), (Baligh, 2006), (Csaszar, 2012)
IT → OL → OI	(Tippins and Sohi, 2003),(Dodgson, 1993), (Yli-Renko <i>et al.</i> , 2001), (Zahra and George, 2002)
HRM→OL→OI	(Testing Center et al, 2011),
LS→OL→OI	(Chourides <i>et al.</i> , 2003; Wong, 2005; Choi and Krause, 2006).

The independent variables that were defined in this study include KM enablers that are concluded as OC, OS and IT. The dependent variable was an OI, whereas OL was a mediating variable.

3 Research Methodology

Following the methodology successfully used in previous papers (Nonaka and Takeuchi, 1995; Gunasekaran and Ngai 2005, Van der Vaart and Van Donk, 2008; Fabbe-Costes et al. 2008), this study reviews prior research publications. A critical review of the literature on KM was undertaken in relevant Operations Management (OM) and Knowledge Management journals in order to identify previous studies and lack in the KM. Therefore, it is very important to focus on only the papers that deal with KM. The objective of this literature review is not to make a classic synthesis of what has been published on KM, but to define KM clearly and to identify the impact of KSFs of KM on OL and finally on OI. A systematic content analysis of papers was undertaken for identifying lacking in the KM.

We suggest for future studies that use quantitative method research which would utilize the questionnaire to collect the data. Based on the conceptual framework of study the questionnaire should be design.

4 Research Propositions

This study aimed at investigating the role of OL, between OI and knowledge management enablers (KME). The literature review suggested that KM enablers influence on OI directly and indirectly. This study highlighted the role of OL as mediating variable between KM enablers and OI (see Figure 1). Also, one co-relational and explanatory (or causal) proposition and three propositions were identified from the literature review.

P₁: There is a positive relationship between KM and OL.

- P₁₁**: OC effect on OL
P₁₂: OS effect on OL
P₁₃: IT effect on OL
P₁₄:HRM effect on OL
P₁₅: LS effect on OL
- P₂**:Organizational learning will be positively related to organizational innovation.
- P₃**: There is a positive relationship between CSFsKM and OI.
- P₃₁**: OC effect on OI
P₃₂: OS effect on OI
- P₃₃**: IT effect on OI
P₃₄:HRM effect on OI
P₃₅: LS effect on OI
- P₄**: The relationship betweenCSFs KM sand OI is mediated by OL
- P₄₁**: The relationship between OC and OI is mediated by OL
- P₄₂**: The relationship between OS and OI is mediated by OL
- P₄₃**: The relationship between IT and OI is mediated by OL

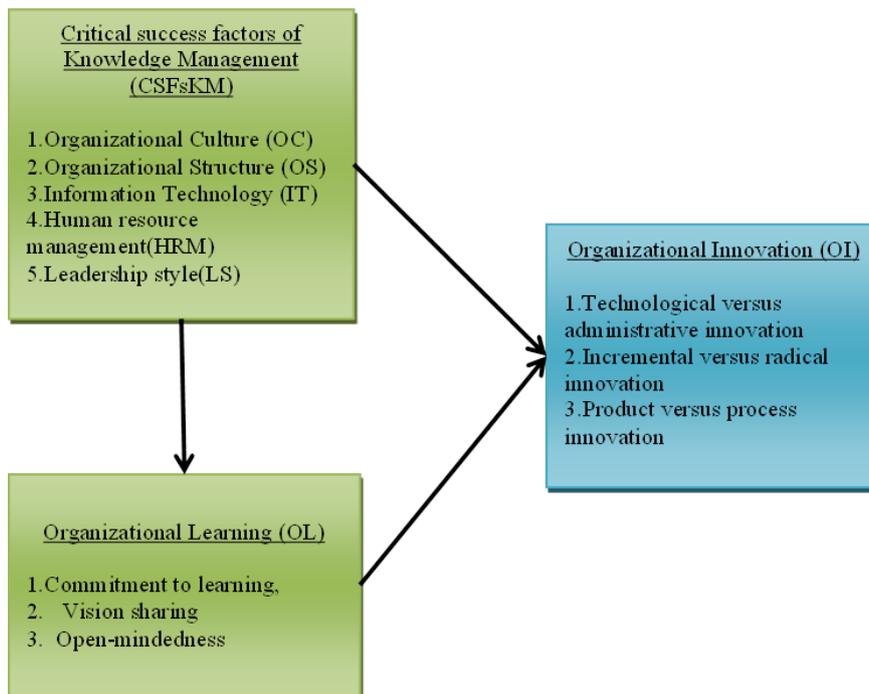


Figure. 1. The Conceptual Framework.

5 Conclusion

This study has revealed the importance of organizational learning as mediate between critical success factors of KM and organizational innovation. Therefore, this study contributed to the previous studies through provided the conceptual framework, which based on both of RBV and KBV based theories. The conceptual framework is explained the

direct relationship between success factors of KM (consisting of OC, IT, structure human resource and leadership style) and organizational innovation (consisting of technological versus administrative innovation, incremental versus radical innovation product versus process innovation)and indirect relationship between critical success factor of KM and organizational innovation through investigate the intervening role of organizational learning (consisting of Commitment to learning, vision sharing and open-mindedness). The conceptual framework

in this study is still limited to the results obtained from literature review and thus not practically proven. Therefore, the future is wide open for further research empirical in this area. Furthermore, this study as a stepping stone for further research on finding importance success factors of KM towards enhance innovation and achieve competitive advantage.

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