

## The Relationships among Critical success factors of Knowledge Management, Innovation and Organizational Performance: A Conceptual Framework

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**Abstract**—The purpose of this study is to explore the relationships among Critical Success Factors (CSFs) of Knowledge Management (KM), innovation and Organizational Performance (OP). From the point-of-view of this study, the major idea is regarding that the successful implementation of KM has a direct effect on OP improvement and indirect effect through innovation. The intensive review of previous study is explored a serious gap in the literature of relationships among CSFs of KM, innovation and OP. Subsequently, this study will try to fill the gap from the perspective of Resource-Based View (RBV) and Knowledge-Based View (KBV). This study is proposed a conceptual framework. The proposed conceptual framework is considered a contribution towards the enrichment of the relevant literature. Moreover, this study as a stepping stone for further research on finding importance CSFs of KM towards enhance innovation and improve OP.

**Keywords**—critical success factors of knowledge management; innovation; organizational performance.

### I. INTRODUCTION

In knowledge-based era, KM is regarded as the best way to enhance innovation and improve OP [1], [2]. The KM is defends as an oriented methodology to create and manage knowledge during use of the knowledge assets of organizations for enhancing innovation and improving OP. Based on the perspective of both the RBV and KBV theories, the knowledge becomes as a key resource for survival, stability and growth of the organizations [3]. Thereby, since 1990s the success of organizations is closely related with KM implementation [4], [5], [6], [7], [8], [9], [10]. Working on this assumption, several studies have been carried out to identify factors that affect successful KM implementation [11], [12], [13], [14], [15]. These factors are called critical success factors (CSFs) of KM. CSFs of KM implementation can be defined as the managerial and organizational factors that need to be effectively addressed in order to increase the probabilities of successful KM implementation [16], [17]. Organizations that seek to implement KM successfully must consider the development and understanding of CSFs. This means that without due consideration of CSFs, expected performance is not likely to be delivered [18]. In addition, the organizations could definitely benefit from a broader understanding of these factors, which are critical to the success of KM implementation. Nevertheless, the adoption

of factors that are not appropriate can hinder the desired performance achievement [19]. Furthermore, empirical investigations that examine the influence of KM implementation on OP are also limited even though KM is argued to be able to enhance OP [20], [21], [22]. Therefore, there is an existing gap in the literature on KM and its influence on OP [23], [24]. That is consistent with Kalling's (2003) remark that “there are relatively few knowledge management texts that make an explicit connection between knowledge and performance” [25:67]. Subsequently, empirical attempts that link CSFs of KM implementation, innovation and OP in a single study position are limited [1], [2], [26], [26], because there is a large gap in the literature of KM, innovation and OP, disentangling the complexities in the relationship is still problematic [1], [2]. There are also limited studies that investigate the relationship between innovation and OP. Despite the claim that innovation is broadly described as a critical tool to improve OP [27], [28], [29], [30], several organizations are not able to develop it appropriately [31]. In this regard, several studies have shown that OP improvement does not depend much on the characteristics of the organizations but on other factors that have a direct effect on innovation [1], [32], [33]. However, there are few studies in the field of innovation field, particularly those that determine the significant factors that influence directly innovation to improve OP [30], [32], [34]. In a nutshell, the purpose of this study is to address the issue of the CSFs of KM implementation and investigate its relationship with innovation and OP. As a consequence, there are three aspects of this relationship (i) the direct relation between CSFs of KM implementation and OP; (ii) the indirect relation of the CSFs of KM implementation with OP through innovation and (iii) the direct relation between innovation and OP.

### II. OVERVIEW OF THE CRITICAL SUCCESS FACTORS OF KNOWLEDGE MANAGEMENT

The CSFs is considered as an important issue when implementing KM in the any sector [12], [35]. Hence, the present study seeks to consider the CSFs as a significant part of KM implementation to enhance innovation which reflects on the OP improvement. It has been argued that generally business organizations fail to implement KM successfully because they are not able to identify the critical factors for successful KM implementation [36]. As a result, they may

face risk when implementing KM. Because KM implementation is one of management issues not appropriately valued by leaders in organizations, and because there is a lack of academic and scholarly endeavors, more investigation into CSFs of KM is still needed [11], [37]. Accordingly, the researchers are interested in investigating how CSFs contribute to the successful KM implementation, which may lead to enhanced innovation and improved OP. In sum, successful KM implementation requires preparation to create an organizational environment to get the best possible use of knowledge, and a conducive environment of effective knowledge management for the storage, transfer and implementation of KM. Previous studies have identified a broad range of factors that could have an effect on the success of KM implementation. Despite the differences in the CSFs of KM, there exist seven CSFs agreed to by most researchers. They are success factors explored by the researchers mentioned are human resource management, information technology, leadership, organizational learning, organizational strategy, organizational structure and organizational culture. Accordingly, this study attempts to examine the role of these CSFs in implementing KM.

#### *A. Human resource management*

Most researchers suggest that human resource management (HRM) is crucial for the KM implementation in achieving success [38], [39], [40], [41]. HRM is responsible for equipping employees in the organization, who are the main source of knowledge creation through the sharing of ideas, opinions and experiences [42]. But often employees are reluctant to share their knowledge with others because of vested interests and lack of trust. Therefore, it is important for organizations to harness the involvement and contribution of employees through KM. HRM practices are essential to capture and support employees' knowledge and skills that an organization needs [43]. HRM practices are defined as a strategic personnel management that gives emphasis on the gaining, organizing and motivation of human resources [44]. In this regard, Lee & Lee (2007) pointed out that HRM practices, including staff training and development, performance appraisals, compensation, HR planning and employees security have a significant influence on OP improvement [45]. In addition, Chen and Huang (2009) found that HRM practices, which include training, compensation, performance appraisal, staffing and participation, are able to contribute to successful KM implementation [43]. In general, the successful KM implementation hinges on the motivation of employees to create, share and apply knowledge. Therefore, HRM practices have become the most vital issue in the KM implementation [46]. However, many KM frameworks have neglected to identify the nature of the relationship between employees and KM success, which is reflected in the limited examination of HRM practices in the KM literature [47], [48]. Furthermore, Lopez-Cabrales et al. (2009) argue that HRM practices can improve the knowledge within organizations, but there are few studies about the use of HRM in managing knowledge [26].

#### *B. Information technology*

Modern information technology (IT) has a decisive role in KM implementation because it can provide important tools to organizations, such as the use of information of clients and competitors, technical databases, decision support systems, management models, successful solutions to competitive situations, and access to specialized sources of knowledge. This will facilitate and expedite the KM implementation in organizations [17]. According to Chong et al. (2000), KM refers to a process of leveraging, articulating skills and experiences of employees supported by information technology [49]. Subsequently, the information technology system will be able to maintain continuously new knowledge, knowledge transfer and knowledge storage [50]. In addition, it can help employees in organization to reduce time of transfer knowledge. It also helps achieve higher efficiency, quality and employees' participation of transfer knowledge [51]. As said by Ray (2008), there are three elements of information technology system that can help successful KM implementation. Firstly, the role of IT in KM implementation needs to be identified. Secondly, it should facilitate document storage, organization and access. Thirdly, organizations should maintain the databases, hardware, software and information survivability [52].

#### *C. Leadership*

Leadership is regarded as an important component of successful KM implementation. A leader is a role model for others in continuous learning. KM requires an unusual manner of leadership to guide others to achieve the highest levels of OP [53]. Leadership is defined as the support of top management for achieving KM activities [16]. Several researchers have investigated the relationship between leadership and KM. In this regard, Lakshman (2007) considered leadership role as a key variable in the relationship between KM and OP improvement. He identified two internal and external dimensions of leadership role in supporting KM implementation. These dimensions depend on the leader's comprehension of the importance of KM implementation. Internal dimension is the leader's comprehension of the importance of technological and socio-cognitive role in the KM implementation. External dimension is the leader's comprehension of the importance of customer-focused knowledge in the KM implementation [54]. Moreover, Singh (2008) emphasized that the leadership style is a key role in the KM processes for gaining competitive advantage. He suggested four leadership styles i.e. directive, supportive, consulting and delegating in the implementation of KM. The results indicate that directive and supportive styles of leadership are significantly and negatively related to KM processes, but the consulting and delegating styles are positively and significantly related to KM processes [55]. Furthermore, Politis (2001) examined the relationship between transformational leadership (which includes attributed charisma, individual consideration, and intellectual stimulation), transactional leadership (which includes contingent reward and consideration), and various dimensions of knowledge acquisition (which includes

communication, personal traits, control, organization and negotiation). He found a strong positive relationship between various styles of transformational leadership and transactional leadership, and various dimensions of knowledge acquisition. In addition, he considered middle managers as gatekeepers of information and knowledge. He recommended that further studies should reexamine these variables [56]. Besides, Crawford (2005) looked at the relationship between styles of transformational leadership and KM processes. He hypothesized that transformational leadership styles leads to the creation of knowledge culture in the organization, which leads to successful implementation of KM processes and to more innovation. The results indicated that transformational leadership style, which consists of charisma, individual consideration, intellectual stimulation, and inspiration, is significantly related to KM processes (which consist of acquisition, creation and application). He suggested the needs for future research to investigate the relationship between transformational leadership styles and KM [57]. In sum, according to Migdadi (2005), transformational leadership has recently received unprecedented attention in KM because of the effect of this style on employees' motivation to create and share knowledge. However, only a few empirical studies have focused on the effect of transformational leadership role on KM [58]. Hence, this study will focus on the importance and the role of the transformational leadership styles in the implementation of KM [57], [58].

#### *D. Organizational learning*

The success of contemporary organizations depends on creating organizational environment that combines organizational learning with KM [59]. Organizational learning has been defined as a collective ability based on experiential and cognitive processes involving acquisition, sharing and utilization of knowledge [32]. In addition, it is defined as an integral feature of any learning organization that successfully utilizes its knowledge assets to generate superior performance [60]. Moreover, López et al. (2004) argued that KM and organizational learning should “go hand in hand” in the organization to achieve superior performance [26]. Organizational learning consists of three major dimensions: commitment to learning, vision sharing and open-mindedness [34], [37], [45], [61], [62], [63]. These dimensions could have a significant positive effect on KM implementation [62], [63]. Furthermore, [62], [63] maintain that these dimensions have a significant and positive effect on knowledge transfer, which includes organizational knowledge transfer, group movements and procedure movements.

#### *E. Organizational strategy*

The successful KM implementation always needs to be linked with effective organizational strategy. In this regard, Wei et al. (2006, 2009) revealed that the organization's ability to succeed in its KM implementation program depends on its ability to choose and apply the organizational strategy needed, which gives it a sustainable competitive

advantage. Therefore, the efforts to link KM implementation with organizational strategy are important to achieve OP [12], [35]. Knowledge creation plays a critical role in the development of organizational strategy by providing knowledge about the customer, service, technology and market, which is considered key for strategic choice [64]. Greiner et al. (2007) emphasized that the KM implementation must therefore support the strategic direction of the organization [36].

#### *F. Organizational structure*

Organizational structure refers to the outcome of the combination of all the ways in that work can be divided into various tasks, the coordination of which must subsequently be ensured [65]. Most organizations seek to implement KM by choosing suitable organizational structure to maintain the continuity of creating new knowledge. As such, suitable organizational structure must encourage team spirit at work and increase exchange of the ideas with low degree of formalization and a decentralization of the decision making process [15], [66]. According to Chen and Huang (2007), organizational structure is divided into three elements: formalization, centralization, and integration. They noted a few studies that have investigated the effect of organizational structure on the KM implementation. The results indicate that interaction had positive effect on knowledge sharing and application. Also, the decreased rate of creating new knowledge comes due to the adoption of the formalization structure and structure of centralization procedures in the workflow. Based on their findings, they suggested that a decrease in formalization and centralization procedures in the workflow and more interaction is pertinent. By doing so, creation of new knowledge can be enhanced through social interaction between employees [67]. In addition, Claver-Cortés et al. (2007) indicated the important role of the flexible organizational structures on successful KM implementation. Flexible structures help achieve decentralization of decision-making process by facilitating the communication process at all organizational levels [65]. In the same vein, Al-Alawi et al. (2007) emphasized that organizational structure characterized by participative decision making, ease of information flow and cross-functional teams contribute positively to support knowledge sharing [68].

#### *G. Organizational culture*

Organizational culture is a vital element in directing and monitoring efforts towards KM implementation. It is defined as a model of shared basic assumptions that is a taught to the group as a way to solve its troubles of external adaptation and internal integration and therefore it is taught to new members as the right way to perceive, believe and feel in relative to those troubles [69]. In essence, both organizational culture and KM depend on human dimensions [68], [69]. Furthermore, organizational culture is an essential building block to creating a “knowledge friendly culture,” which leads to positive outcomes such as more innovation and improvement of OP [70]. It is argued that organizational culture can either be a hindrance or an

enabler to successful KM implementation. Previous studies have highlighted several characteristics of organizational culture considered a major barrier of successful KM implementation [68], [69]. But Tseng (2010) noted that organizational culture characteristics such as trust, common cultures and broad ideas of productive work have significant contributions in the successful KM implementation [70]. For example, Park et al. (2004) found a positive relation between KM implementation and the characteristics of culture such as stability, flexibility, trust, sharing knowledge freely, and support of employees [69]. Furthermore, Al-Alawi et al. (2007) investigated the relationship between culture characteristics, such as trust, communication and information systems and knowledge sharing such as direct assessment, techniques, collaboration required to accomplish tasks and willingness to share knowledge freely. They found that those culture characteristics are positively related to knowledge sharing in the organization [68].

### III. INNOVATION

In the literature, innovation is defined in many different ways. However, it is defined as “the creation of new knowledge and ideas to facilitate new business outcomes, aimed at improving internal business processes and structures and to create market driven products and services” [71:21]. In addition, it is defined as “innovation is a process wherein knowledge is acquired, shared and assimilated with the aim to create new knowledge, which embodies products and services” [72:341]. Thereby, this study adopts the definition of innovation as a knowledge-based process to create new ideas, markets, products and services toward overall OP improvement.

### IV. INNOVATION TYPES

In fact, there are classical problems in the identification of innovation types because the private literature of innovation had found a large variety of innovation types [73]. The reasons for this variety are the environmental conditions, organizational factors, generation processes of innovation, and organizational sector. Thereby, the previous studies have introduced many types of innovation [74]. Despite innovation is a multi-type activity, this study will adopt the results of previous studies that considered the technological innovation, administrative innovation, radical innovation and incremental innovation as a main reason to survival and growth contemporary organizations [75], [76], [77], [78], [79], [80]. Based on the literature, innovation is a multi-type activity. According to Lin et al. (2010), the organizational innovations have affected the OP through five types, which are product innovation, process innovation, administrative innovation, marketing innovation and service innovation [46]. In addition, Damanpour et al. (2009) explored four types of organizational innovations that are appropriate to improve OP at service organizations which are service innovation, technological innovation, and administrative innovation [74]. However, there are several researchers who grouped innovation types into three main groups including administrative and technical, product and process, and radical and incremental [81]. Based on the above, this study

will focus on four types of innovation radical, incremental, administrative and technical. Technical innovation is the knowledge that links methods, components, and techniques with processes to create a product or service [82]. Administrative innovation refers to the changes in organizational structure and processes, like the authority, tasks structuring, personnel recruitment, resources allocation and rewards [83]. Radical innovation is a main change that represents a new technological pattern [84], and requires more organizational capabilities and superior profundity of knowledge [85], [86]. Incremental innovation is defined as small technological changes in organization to create products or services [84]. As such, unlike radical innovation, it does not require much organizational capability [85], [86].

### V. ORGANIZATIONAL PERFORMANCE

Organizational performance has been defined in different ways. According to Pitt & Tucker (2008), it is defined as “a vital sign of the organization, showing how well activities within a process or the outputs of a process achieve a specific goal” [87:243]. Also, it is defined as “a process of assessing progress towards achieving pre-determined goals, including information on the efficiency by which resources are transformed into goods and services, the quality of these outputs and outcomes, and the effectiveness of organizational objectives” [88:172]. Accordingly, OP in this study refers to the integration between organizational knowledge and innovation competence to achieve positive goals that have been identified previously.

### VI. ORGANIZATIONAL PERFORMANCE MEASUREMENT

The OP measurement has become an important standard in evaluating the organizational success [85], [89]. It is defined as "comparing the expected results with the actual ones, investigating deviations from plans, assessing individual performance and examining progress made towards meeting the targeted objectives" [90:503]. Based on this definition, OP measurement can provide more assistance for managers to evaluate the organizational activities and maintain the competitive position or superiority over competitors [91], [92]. In this regard, Visser and Sluiter (2007) developed indicators of OP measurement that leads to improve OP. The researchers put sets of indicators of OP measurement depending on Balanced Scorecard. These indicators are arranged in four major sections, financial perspective metrics, customer perspective metrics, internal process perspective metrics and learning and growth perspective metrics. As a contribution in this study, the researcher attempts to adopt these indicators [92].

### VII. CRITICAL SUCCESS FACTORS OF KNOWLEDGE MANAGEMENT AND INNOVATION

In this study, the researchers have identified seven critical success factors of KM which are human resource management, information technology, leadership, organizational learning, organizational strategy, organizational structure and organizational culture. These factors are an important for successful KM implementation

to create, support and enhance innovation. In this regard, Gloet and Terziovski (2004) indicate that the success of innovation performance, which includes new process, product and service, depends highly on the integration of KM processes with soft HRM activities and hard information technology activities. It is considered as main CSFs of KM. The results show that there is a positive relation between KM processes-based on IT and HRM with innovation [39]. In similarly, Chen and Huang (2009) concluded that the HRM practices have indirect effect on innovation performance through KM capacity. They found the HRM practices, which includes performance appraisal, compensation, staffing, participation and training have a positive effect on the KM capacity. Subsequently, there is a positive relation between acquisition, sharing and application, which considered KM capacity with innovation performance, which consist of administrative and technical innovation [43]. Increasingly, Lin (2007) examined the relationship between knowledge sharing and innovation capability. The results show an increasing innovation capability to create new service, new product and new idea depending on effectiveness of knowledge sharing processes, which consist of donating and collecting knowledge. In this regard, the researcher indicates that the top management support, helping others and self-efficacy is considered as a main CSFs of knowledge sharing effectiveness. However, the researcher noted that there is a gap between the CSFs of knowledge sharing and innovation. Therefore, the researcher has suggested to determine other CSFs that could perhaps affect knowledge sharing processes to enhance innovation capability in future research [93]. Meanwhile, Brachos et al. (2007) indicate the few studies that have examined the relationships among organizational context, knowledge transfer and innovation. The results show organizational factors, which include trust, motivation to transfer knowledge, management support and learning orientation which have a positive effect on knowledge transfer in order to enhance innovation [94]. Likewise, Rhodes et al. (2008) stated that there is a lack of substantial empirical studies that have examined the relationships between critical organizational factors, knowledge transfer strategies and innovation. They noted that the IT systems, learning strategies, trust culture, and flexible structure and design have positive effect on knowledge transfer strategies. In addition, the consistence of strategy codification and personalization of knowledge transfer have positive effect on product innovation and process innovation. Apart from that, the researchers have suggested examining these factors in the future with different sectors and cultures [2]. However, Chang and Lee (2008) argued that enhancing administrative and technical innovation could come from knowledge accumulation capability, which includes accumulation, storage, obtainment, selection, expansion and establishment. On the other hand, they emphasized that organizational culture and external entailment are regarded as a permanent source of knowledge accumulation capability. Therefore, the results indicate that knowledge obtainment capability has a positive effect on administrative and technical innovation. In addition, knowledge expansion capability has also a positive

effect on administrative innovation. Furthermore, organizational culture and external entailment have a positive effect on knowledge accumulation capability, which is reflected on innovation [95]. Nevertheless, Sáenz et al. (2009) highlighted the role of CSFs of knowledge sharing in the increasing innovative capability. The results show that information technology, employees and processes have a positive effect on knowledge sharing effectiveness. Subsequently, the knowledge sharing has a positive effect on enhancing innovation capability in many aspects such as new ideas, innovation projects and effectively cost efficiency. They emphasized that there is a lack of empirical studies that have examined the CSFs effect of knowledge sharing on the innovational capability of organizations. Thereby, the researchers have recommended that future studies should be testing these factors with other samples [96]. Liao and Wu (2010) explored the main role of the organizational learning as a critical key to investigate the relationship between KM and organizational innovation. They emphasized the availability of learning organizational capabilities which contribute to the success of regulatory KM practices that, in turn, lead to the creation of innovation [8]. Based on the above, there is an agreement among the previous studies with the opinion of the researchers in selecting the CSFs of KM to investigate the relationship between KM and innovation.

#### VIII. CRITICAL SUCCESS FACTORS OF KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE

In this study, the researchers have identified seven CSFs of KM which are human resource management, information technology, leadership, organizational learning, organizational strategy, organizational structure and organizational culture. These factors are important for successful KM implementation in order to improve OP. In this regard, Asoh et al. (2007) stated that there is a strong relationship between CSFs of KM and OP. The results indicate that the CSFs of KM, which includes technology, leadership, culture and measurement have a positive relation with OP. Furthermore, the relationship between CSFs of KM and OP is in need of future studies. Therefore, in the recommendations of the research there is a suggestion for conducting more research in this area with more samples [16]. Moreover, Zheng et al. (2010) stated that the structure, culture and strategy are considered significant success factors for KM to achieve high OP. Further exploration is needed to examine integrating between the RBV and KBV. It could increase knowledge resources in an organization in order to achieve high OP [15]. Nevertheless, Lin and Kuo (2007) argued that the existence of an organization depends on increased KM capabilities during HRM and organizational learning which can contribute towards achieving high OP. Therefore, the results show the HRM and organizational learning have indirect positive effects on OP through KM capabilities [46]. In similarly, Ho (2008) also argued that the existence of an organization depends on increased KM capabilities during self-directed learning and organizational learning which affects OP. Therefore, the results show that the self-directed learning and

organizational learning have indirect positive effects on OP through KM capabilities [5]. Meanwhile, Wei et al. (2009) mentioned that the CSFs of KM is regarded as a major issue to achieve OP improvement. Accordingly, the results stated that there is a positive relation between business strategy, organizational structure, KM Team, K-Map and K-Audit as CSFs of KM and OP improvement. The researchers suggested that there is more need for future studies in this field with different countries and samples [12]. However, Zack et al. (2009) stressed that KM has emerged as an increased attention to the direction of OP improvement. Nevertheless, the researchers found that there is a serious gap in the literature in term of the relationship between KM and OP due to lack of empirical evidence. The results of the study show that KM practices indeed (i.e. processes, culture, learning, and strategies) have positive relation with OP (i.e. customer intimacy, operational excellence, and product leadership). In addition, the organizations need to realign their “KM mindset” and perceptions about how KM practices can enable the organization to improve OP. Without these, many KM practices might fail. The researchers suggested that further studies with different sample and culture [24]. Furthermore, Yang et al. (2009) regarded CSFs of KM as the heart of OP improvement. The results highlighted the positive effect of culture, structure and information technology of CSFs of KM on the OP, which include innovation, financing and service. However, the researchers noted that there exists a large gap in the literature between CSFs of KM and OP. Thereby, they have recommended further studies to investigate the relationship between CSFs of KM with OP, in addition to further studies to investigate the relationship between the resource and process of KM with OP. This is in line with the situation of the researchers to investigate the relationships among CSFs of KM processes with OP [97]. Based on the above, there is an agreement between the previous studies and the opinion of the researchers in selecting the CSFs of KM to investigate the relationship between KM implementation and OP.

#### IX. INNOVATION AND ORGANIZATIONAL PERFORMANCE

In particular, the innovation has the potential to improve the overall OP [98]. Subsequently, most organizations needed more support for innovation [28], [29], [30], [84]. Furthermore, some previous studies show that analysis of innovative organizations characteristics such as clear mission and the ability to fail over hasn't positively related to improve OP [1], [33], but the analysis of factors that have direct effect on innovation such as leadership and organizational learning has positively related to improve OP [32]. However, numerous previous studies have agreed that innovation has a positive effect such as [27], [28], [73]. As a stepping-stone, this study attempts to consider the innovation as an intervening variable between CSFs of KM and OP. For building a consistent argument, the researchers will try to offer some previous arguments that are consistent with the researchers' opinion about the choice of innovation as an intervening variable to improve OP. In this regard, Akgün et al. (2009) stated that emotional capability and innovation needed to attain a success in OP. They examined

the intervening role of innovation, which consists of product and processes between expressive capability and OP. The results indicate that emotional capability has a positive and a direct effect on the innovation types, which in turn has a positive and a direct effect on the OP. They suggested conducting further studies in this area [27]. Meanwhile, Calantone et al. (2002) argued that learning is an important driver of innovation in order to improve OP. Apart from that, to enable organizations to innovate effectively, the researchers contend that it is now appropriate to consider the effect of the main factors of effective learning. Besides that, the results show that commitment, shared vision, open-mindedness and shared knowledge have a positive effect on learning, which, in turn, affects enhancing innovation. Subsequently, the innovation has a positive effect on OP improvement. The researcher suggested readdressing this issue through studying the effect of other factors on innovation to improve OP [34]. Besides that, Li et al. (2006) stressed that the issue of the relationship between the factors affecting innovation to improve OP still ranks first. Apart from that, the researcher indicates that there is a large gap in the empirical studies concerning this area. Therefore, they examined the effect of HM on the technological innovation in order to improve OP. The results showed that there is a significant positive effect of training, motivating and directing technological innovation, which, in turn, positively affect the relation with OP. Nevertheless, the researcher suggested reexamining the effect of other factors on innovation types to improve OP. This is consistent with the decision of the researchers in selecting the KM implementation to improve OP through innovation types [30]. Meanwhile, Aragón-Correa et al. (2007) mixed the effect of transformational leadership and organizational learning on innovation types in order to improve OP. The empirical evidence shows that the leadership of transformational and organizational learning have positively and directly affected products and processes innovation. In addition, it shows the positive and direct effect of innovation types on OP, so, innovation, when utilized, always leads to improve profitability. The future studies should be examining effects of other factors on organizational innovation to improve OP. This is consistent with the situation of the researchers in choosing the CSFs of KM to improve OP through innovation [32]. Apart from that, García-Morales (2008) emphasized that the transformational leadership has a positive and indirect effect through innovation capabilities on the OP. The various innovation capabilities include a number of new products, processes, ideas developed and marketed by the organization. Several new markets that the organization has entered, total amount that the company had spent on R&D and total number of workers dedicated to task of R&D have a positive and direct effect on the OP measurement, which includes return on sales, return on equity, return on assets and market share. They suggested further studies in this area, particularly in the organizations technology [31]. Undeniably, investigating the relationship between innovation and OP in contemporary organizations is still relevant for three reasons. Firstly, OP improvement depends on the factors that have direct effect

on innovation [1], [32], [33]. Secondly, there is a large gap in the empirical studies in innovation particularly in determining the significant factors that have a direct effect on innovation to improve OP [30], [32], [34], [73]. Thirdly, there is a gap in the performance theory of profit and non-profit organizations due to external and internal environmental changes. The gap in performance is the variation between actual performance and expected performance in the organization. Since innovation leads to OP improvement, innovation is very important to reduce the performance gap [73]. Based on the previous arguments, the researchers contend that it is now appropriate to consider the effect of the main drivers of effective innovation.

#### X. CONCEPTUAL FRAMEWORK

The CSFs of KM, which consist of human resource management, information technology, leadership, organizational learning, organizational strategy, organizational structure and organizational culture are regarded as the best way to enhance innovation and improve OP [2], [11], [12], [13], [14]. In addition, the enhancing of innovation is reflected on effectiveness four major types of innovation are radical innovation, incremental innovation, technological innovation and administrative innovation [81], [86], [95], [96], which lead to provide new product or service [38], [80]. Besides those, the OP measurement of organizations involved four major measurements are financial perspective metrics, customer perspective metrics, internal process perspective metrics and learning and growth perspective metrics [90]. From the previous arguments, the conceptual framework is developed based on the theories of RBV and KBV [7], [89], which explain that knowledge leads to enhance innovation and improve OP [1]. The framework was conceptualized on the study of [1], [16], [20]. Most of these frameworks were developed based on the theories of RBV and KBV. Based on the theoretical foundations which reviewed in literature, such as the framework has been developed to investigate the relationship among study's variables; the CSFs of KM, innovation and OP. Figure 1 shows these relationships. The proposed conceptual framework might be a good contribution to the KM literature. It describes the causal relationships among three variables CSFs of KM, innovation and OP. The independent variable in this framework is the CSFs of KM and the dependent variable is OP. Innovation is as the intervening variable between CSFs of KM and OP.

#### XI. CONCLUSION

This study has revealed the importance of CSFs of KM in relation to enhance innovation and improve OP. 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 CSFs of KM (consisting of human resource management, information technology, leadership, organizational learning, organizational strategy, organizational structure and organizational culture) and OP (consisting of performance financial perspective metrics, customer perspective metrics,

internal process perspective metrics and learning and growth perspective metrics) and indirect relationship between CSFs of KM and OP through investigate the intervening role of the innovation (consisting of innovation radical, incremental, technological and administrative). Furthermore, the future is wide open for further research empirical in this area.

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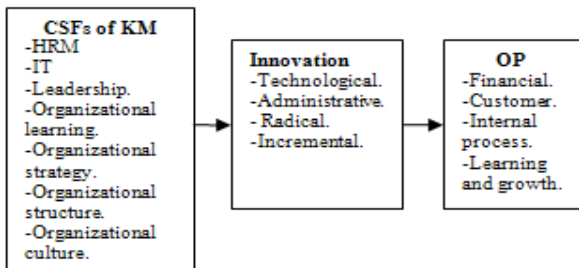


Figure 1. Conceptual framework