

Knowledge Management Strategic Alignment in the Gulf Cooperation Council Countries

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Abstract: Organizations today should actively incorporate knowledge strategy (KS) into their Business Strategy (BS) as knowledge has been recognized as a strategic element in the performance of the organization. Hence, the current research hypothesis that the alignment between BS and KS has a positive effect on the organizational performance.

In an attempt to explore the alignment between KS and BS, an operational model is proposed based on the prior studies in the strategic alignment. BS types were viewed in terms of Miles and Snow's (1978) typology of Defenders, Analyzers and Prospectors. Two KS strategies include: Aggressive Knowledge Strategy (AKS) and Conservative Knowledge Strategy (CKS) were selected to examine the KM strategic alignment with business strategies. This model was empirically validated through a survey of 106 banks selected from the six Gulf countries (Bahrain, Saudi Arabia, Kuwait, Qatar, UAE, and Oman). With respect to the perspective of alignment, the moderation approach was chosen. The overall finding of the research demonstrated that there is a strong association between KS and BS and that the alignment between KS and BS clearly influenced the organizational performance.

Keywords: knowledge strategy, strategic alignment, business strategy, banking sectors

1. Introduction

In order for an organization to be successful in the exploitation of knowledge assets to drive competitive advantages, a holistic approach that spans Knowledge Management (KM), BS, and organizational and human factors should be used (Cedar, 2003). Thus, KM should be aligned with business process, organizations, and IT to continuously capture, maintain, and reuse the key information, and arbitrates the strategic knowledge assets that improve business performance (Cedar, 2003). When such alignment is established, the KM system will be directed towards the goal and objectives of the organization which will build and enhance its long term competitive advantages. For instance, if the BS is based upon differentiation through customer service, then KM efforts should probably target customer care functions such as call centers, help desks, and other customer support activities (Sunassee and Sewry, 2002). The espoused positive relationships between KM and BS and their impact on performance outcomes has been a core belief of IT and management research, however there has been little empirical evidence to confirm or refute this belief. Considerable researches have been devoted to investigate the importance of the alignment between KM and BS (Jones, 2000; Smith and McKeen, 2003; Zack, 1999; 2002; Aidemark and Sterner, 2002; Davenport, 1999; Sabherwal and Sabherwal, 2003; Sunassee and Sewry, 2002). However, the majority of these researches have provided complex and confused models that are difficult to be measured and analyzed (Franken and Braganza, 2006). Hence there is an ultimate need to find an answer to questions such as: what is the real impact of the alignment between KS and BS on the organizational performance? What is the role played by KS in the contribution of BS on the organizational performance? The aim of the current study is to find the answers to these questions in order to provide a context for better understanding of KM strategic alignment. This proposed study will investigate the strategic alignment between KS and BS or KMBS-SA in the banking sector in the Gulf Cooperation Council (GCC) countries. Moreover, using the recommended conceptual model it will explore the impact of KMBS-SA on the organization performance.

This paper is articulated into five sections including the introduction. The research and hypotheses were discussed in the next section. Section 3 discusses the research methodology and design. Section 4 presents the results of the research. The paper then concludes with Section 5.

2. Research model and hypotheses

The KMBS-SA model proposed by the current study focuses on the relationship between alignment and organizational performance, based on the argument that strategic alignment has performance implications (Al Ammary and Fung, 2005). The research model hypothesizes that there is an alignment between KS and BS pursued by the GCC Banking and that this alignment has a positive contribution on the organizational performance.

The model is comprehensive and complex as the relationships between the constructs KS and BS are examined in this research in more complete context. KS in particular has received little recognition in the literature, thus its inclusion in this research model represents a contribution for this study. The complexity of the research model necessitates the illustration of two different conceptualizations for the model to hypothesize the different relationships between KS and BS. The first conceptualization illustrates the KMBS-SA as shown in Figure (1) and investigates the contribution of KMBS-SA on the organizational performance. The second conceptualization exhibits the different alignments between various profiles of KS and various types of BS as shown in Figure (2). Thus, this conceptualization of the research model aims at investigating the impact of different KMBS-SA on the organizational performance. Moreover, using both conceptualizations, the role of KS as a moderator in the contribution of the BS on the organizational performance was examined.

The illustrated research model in Figure (1) or Figure (2) generally consists of BS, KS, and organizational performance. Organizational performance was conceptualized in the same way in both conceptualizations of the research model. However, in each conceptualization, BS and KS were illustrated in different ways based on the investigated objectives of the study.

2.1 Knowledge strategy

KS, in the first conceptualization, was illustrated as a set of knowledge strategic actions or choices to identify the strategic knowledge assets, resources and capabilities of the organization. Among the identified strategic choices, six are selected for the purpose of the current study. These strategic choices include: Internal source of knowledge, external source of knowledge, system-focus (codification), human focus (personalization), knowledge exploitation, and knowledge exploration. These strategic choices have been extensively investigated in the literature (Bierly and Daly, 2001; Bierly and Chakrabarti, 1996).

However, in the second conceptualization of the research model; two profiles for KS were identified to conceptualize KS. These profiles have been identified based on the selected knowledge strategic choices. The first profile is called Aggressive KS (AKS). This profile of KS emphasizes the innovation and creation of new knowledge (Rollo, 2002). It views knowledge as an ongoing process of creative destruction (Zack, 2002b) and innovation as a set of interacting knowledge process (Skyrme, 1999). It is moreover, exploring the external knowledge and enhancing the communication and the interpersonal exchanging of tacit knowledge. The second profile to KS is called the Conservative KS (CKS). This profile of KS views knowledge primary as an objectified proprietary asset to be protected and financially exploited (Zack, 2002b). It focuses on maintaining knowledge in its original and constructive state and keeping knowledge from unauthorized transfer to other organization (Bloodgood and Salisbury, 2001). Thus, the AKS profile of KS mapped by three knowledge strategic dimensions: external source of knowledge, knowledge exploration and human focus. Three knowledge strategic choices are selected to map the CKS profile of KS. These knowledge strategic choices include: internal source of knowledge, knowledge exploitation, and system focus.

2.2 Business strategy

BS is defined as the outcome of decision made to guide an organization with respect to the environment, structure and processes that influence its organizational performance (Croteau, et al. 1999). Then, the strategic choices or decisions can be assessed by multiple traits of dimensions common to all organization. Therefore, in the first conceptualization of the research model, BS was conceptualized using Venkatraman's (1989) dimensions of strategic orientation or Strategic Orientation of Business Enterprise (STROBE) which consist of defensiveness, risk aversion, aggressiveness, proactiveness, analysis, and futurity. These dimensions represent a broad and holistic perspective of strategy built on research by Miles and Snow (1978).

Conversely, BS was conceptualized in the second conceptualization of the research using three types of Miles and Snow (1978) typologies of Prospector, Analyzer, and Defender. As such conceptualization, typology reflects the actual strategy pursued by an organization with respect to its competitors and involves a host of organizational strategic activities (Lefebvre, Mason and Lefebvre, 1997).

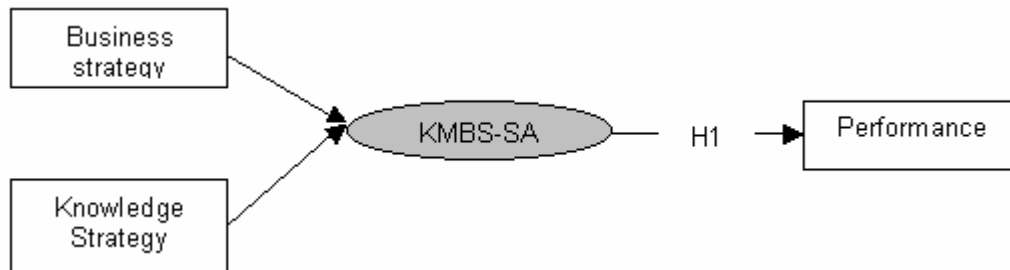


Figure 1: The first conceptualization of the research model

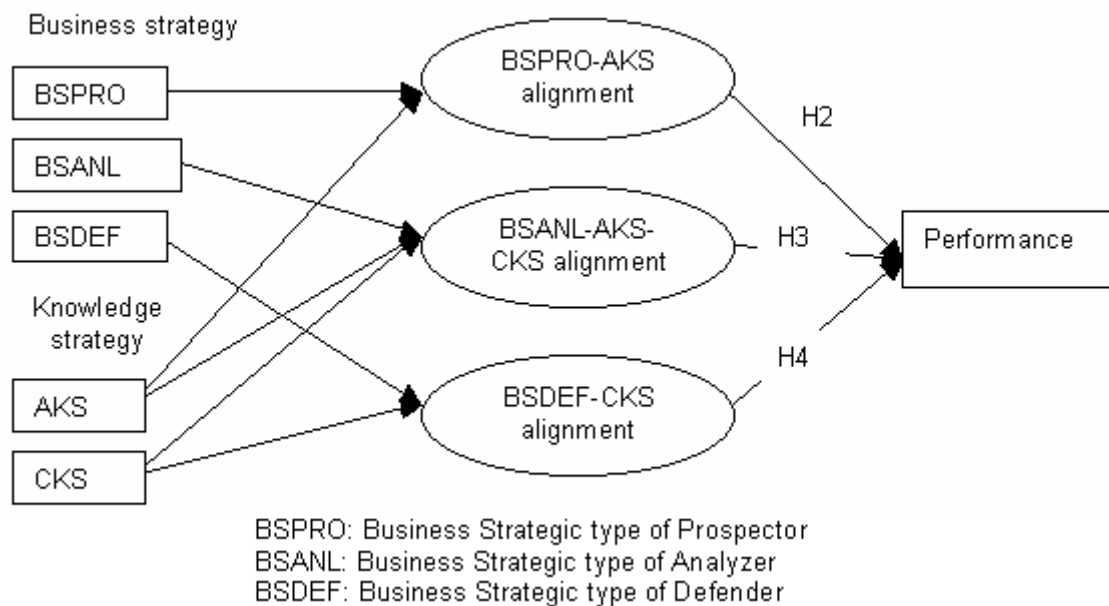


Figure 2: The second conceptualization of the research model

2.3 Research hypotheses

2.3.1 KMBS-SA and its impact on the organizational performance

The impact of KMBS-SA on the organizational performance and competitive advantage have been revealed by many researchers (Zack, 2002; Snyman and Kruger, 2004; Tiwana, 2002; Maier and Remus, 2002; Seeley, 2002). Bloodgood and Salisbury (2001) contended that the proper alignment between a specific type of BS and the knowledge resources needed by the organization to successfully implement this strategy can enhance the organizational performance. Greater alignment between BS and KM indicates that the organization is pursuing the BS most suited for its KM capabilities (Sabherwal and Chan, 2001). Snyman and Kruger (2004) and Tiwana, (2002) argued that organizations may lost many opportunities by the misalignment between the BS and KS. Thus, organizations may fall into the trap of attempting to explicate knowledge that is not explicable and failing to explicate knowledge that should have been converted from tacit (Tiwana, 2002).

Moreover, Asoh (2004), and, Shih and Chiang (2005) have provided empirical studies on the important of KMBS-SA on the performance. They examined the impact of the strategic KM alignment using different dependent variables, organizational performance and KM effectiveness, respectively. The finding of their studies has presented evidence suggesting that alignment in KM is profitable, and it helps to secure better organization performance. Moreover, a survey conducted by Maier and Remus (2002) on 200 organizations revealed that the highest benefits concerning the relationship of KM initiatives and business goals predictable to be in areas like 'improve customer satisfaction', 'improve speed of innovation' and 'improve productivity'. This expected relationship between KMBS-SA and organizational performance leads to the following hypothesis (see Figure (1)):

Hypothesis 1: The alignment between BS and KS in the Banking sector at the GCC countries is associated with a better organizational performance

2.3.2 The alignment between business strategic type of prospector and AKS profile of KS

Organization that pursued prospector type of business strategy must develop and maintain the capacity to find and exploit new product and market opportunities within a board and a continuous state of development domain. As such they need to seek and scan the external environment for new knowledge. AKS profile of KS emphasizes constructing new knowledge and exploring the external environment for new opportunities that can be used to develop new products and services. Therefore, AKS is the appropriate proposed profile of KS to be adopted by prospector type of organization. An AKS should support business strategic type of prospector in building a broader knowledge-based domain to propel the organization into new market positions while maintaining and enhancing the practicability of their existing one (Zack, 1999). Besides, an AKS profile of KS encourages the creativity, experimentation and the creation of a sharing understanding within the individual and the organizational group which can help prospector type of organization in scan the environment for potential opportunities.

Having a focus on innovation and the creation of new knowledge, AKS moreover, should help prospector type of organization to maintain their innovator position in the marketplace and enables them to remain at the forefront of new products and marketplaces (Blackler, 1995; Bierly, 1999; Bloodgood and Salisbury, 2001). Accordingly, the following research hypothesis was constructed:

Hypothesis 2: The alignment between business strategic type of prospector and AKS profile of KS in the Banking sector in the GCC countries is associated with a better organizational performance

2.3.3 The alignment between business strategic type of defender and CKS profile of KS

The success of an organization within a defender strategy in the industry depends on their ability to maintain its distinction aggressively within the chosen market segment (Miles and Snow, 1978). Organizations with a defender type of business strategy limit their search for new opportunities and instead, they focus attention internally on ways to enhance organizational effectiveness (Miles and Snow, 1978). In such organizations, where efficiency and cost reduction are crucial and advances are less common, utilizing and enhancing existing knowledge is essential and thus CKS should be a successful profile of KS to be adopted.

A CKS profile of KS views knowledge primarily as an objectified proprietary asset to be protected and effectively exploited (Zack, 2002b). The effective utilization and protection of existing knowledge, assets and resources allows defender type of organization to achieve efficiency and an excellent reputation in certain markets (Das et al., 1991). Moreover, the focusing on internal knowledge should allow such organizations to develop their own core competencies and capabilities and appropriate more profit. Moreover, CKS profile of KS focuses on maintaining knowledge in its original and constructive state and keeping knowledge from unauthorized transfer to other organizations (Bloodgood and Salisbury, 2001). This permits defender type of organization to lead products and services that are difficult to imitate and refine, become very efficient at their current practices, and maximize the organization short-term profits (Bierly, 1999). Accordingly, the following research hypothesis was constructed:

Hypothesis 3: The alignment between business strategic type of defenders and CKS profile of KS in the Banking sector at the GCC countries is associated with a better organizational performance

2.3.4 The alignment between business strategic type of analyzer and CKS and AKS profiles of KS

Analyzer type organizations operate in relatively stable as well as changing product-market domains (Miles and Snow, 1978). Consequently, these organizations must identify and pursue new product-market opportunities while simultaneously maintaining a presence in existing domains. To pursuit the effectiveness in both areas, such organizations should adopt a moderate combination of AKS and CKS profiles of KS. Adopting just one profile of KS may not be satisfying the strategic requirement of an organization that pursuing business strategic type of analyzer. The hybrid nature of analyzer type of organizations, moreover, necessitates them to view AKS and CKS profile of KS as complementary strategies.

The combination of CKS and AKS profiles of KS should help analyzer type organizations in differentiating their structure and processes to accommodate both stable and dynamic areas of operation. AKS encourages value innovation that can help such organizations in minimizing risk while maximizing opportunities for growth. CKS however, maintains a stable domain of core products for these organizations by the utilization and protection of the existing assets and resources. CKS moreover, helps analyzer type of organizations in defending a niche in the market and also in exploiting new product and market opportunities. Accordingly, the following research hypothesis was constructed:

Hypothesis 4: The alignment between business strategic type of analyzer and CKS and AKS profiles of KS in the Banking sector at the GCC countries is associated with a better organizational performance

3. Methodology

3.1 Sample and data collection

Banking sector in the Gulf Cooperation Council (GCC) or Arabian Gulf countries was deemed to be appropriate for this research due to their high information intensity. The GCC countries comprise of six Arab states. These include the Kingdom of Saudi Arabia, Kingdom of Bahrain, Kuwait, Qatar, United Arab Emirates and Oman. Since this study aimed to investigate the situation in GCC banks, the selection of banks was made on one main premise according to which they must be embedded Arabian culture that affected its operation, strategies and management. Therefore, the researcher decided to select only the local banks that are operating in the Gulf environment. Accordingly, 106 banks were selected which present most of the local banks in the GCC. These banks comprise four types: the commercial, investment, specialist and Islamic banks. Foreign banks have been excluded from the list due to the different style of operation and management in these banks.

In gathering information pertaining to the current study, a questionnaire was used as the main instrument for data collection. Questionnaires were developed to collect data about the research model’s constructs: BS, KS, and organizational performance. However, some questions were developed to retrieve descriptive information. Descriptive information concerning the perception of the CEO, CKO and CIO on the KMBS-SA and their implication on the performance may support the statistical and analytical results. As such, the questionnaire was arranged into four sections as shown in Table (1).

Table 1: The structure of the questionnaire

Section number	Parts	No. Items
One (Descriptive information regarding KMBS-SA)	The business manager perception of the responsibilities for developing and managing KM in the bank	1-3
	The role of the business manager in relation to KM.	1-5
	The bank objectives of KMBS-SA	1-4
	The relationship between business manager and KM manager	1-6
	The relationship between business strategy and knowledge strategy	1-7
Two	Business strategy (Venkatraman, 1989b) measurement	1-21
Three	Organizational performance measurement	1-8
Four	Knowledge Strategy	1-17

3.2 Measurements

The construct of BS was assessed using STROBE instrument proposed by Venkatraman (1989). STROBE instrument was conceptually based and have been empirically validated in previous strategic alignment studies (Venkatraman 1989; Bergeron, Raymond and Rivard, 2004; Sabherwal and Chan, 2001).

Having different conceptualizations for KS, creating an instrument to assess such construct was not a simple task. Therefore similar studies such as Beeson and Al Mahamid (2003), Helmi (2002), Cho (2000) and Gold et al. (2001) were used to develop a measurement for the purpose of this study.

The adopted instrument to measure the organizational performance in this research was based on the performance instruments used by Morgan (2003), Cao and Schniederjans (2004), Sin et al. (2006) and Sabherwal and Chan (2001). This instrument is a synthesized measure which was made using combination of traditional accounting-based items, market growth, profitability, company reputation, and product-service innovation.

4. Results and discussion

4.1 Descriptive statistics

The questionnaire was sent to 106 banks. The respondents were CEO, CIO or CKO. Total of 70 were returned in a form eligible for the analysis. The overall response rate for this study was 66%. This response rate considers being relatively high, as the respondents were managers who supposed to be too busy to answer questionnaires.

The descriptive data of this research has been published in Al-Ammary and Fung (2006). The result revealed that there is a strong relationship (alignment) between BS and KS pursued by the GCC banks and that the KMBS-SA has a vital importance for the survival of these banks. The result revealed that most of the business managers in the GCC banks believe that by aligning business and knowledge at a strategic level; the strategic knowledge resources, skills and capabilities would be predicted to support the bank's strategy and goals. Also most respondents demonstrated that both BS and KS have an equal priority and importance in their bank. However, the result indicated that they are preparing BS first followed by KS to reflect the objectives of BS. Planning BS with this sequential fashion is inappropriate as a more iterative approach helps BS to be informed by the strategic possibilities available (Smith, McKeen, 2003).

Moreover, the results raised an important issue regarding the position of CKO as it demonstrated that the role of CKO is unknown in the Gulf banks. The responsibilities of CKO or KM manager are assigned to the CIO, IT Director or the Head of IT department. Although, CKO or KM manager role requires advanced knowledge, skills, and experiences than the typical CIO has (Liebowitz, 2002), the result indicated that GCC banks belief that CIO or even IT Director can handle the duties of a CKO.

4.2 Testing the research hypotheses

Research hypotheses were evaluated using the moderation approach of fit (alignment). The aim of selecting the moderation approach is to assess if KS is presumed to affect the causal relationship between BS and the organizational performance. The moderation effect of KS was investigated from two perspectives: the strength and form (Venkatraman, 1989).

According to the strength perspective of moderation, the impact of a predictor variable on the dependent variable is dependent on the level of the moderator (Venkatraman, 1989). Thus, in the case of this study, moderation can be assessed by evaluating if the strength of the relation between BS and performance vary across different levels of KS. Venkatraman (1989) has proposed a subgroup analysis for testing this perspective of moderation approach. This method has been adopted by Bergeron and et al (1999). In this method the sample first splits into groups based on the moderator variable. The strength of moderation is supported when statistically significant differences exist in the value of correlation coefficient between BS and performance across the sub groups of the moderator (KS).

The form perspective of moderation however, implies that a dependent variable is jointly determined by the interaction of the independent variable (predictor) and the moderator (Venkatraman, 1989). Thus, according to the interaction perspective, the product of BS and KS could have an effect on the performance if KS and BS were aligned. The form perspective of moderation can be assessed using the moderator method (Bergeron et al, 1999; Venkatraman, 1989). In this method, the performance outcome is jointly (multiplicative) determined by the interaction of BS and KS.

The first results of note concern the inter-relationships between KS and BS. As shown in Table (2) the congruence of BS and KS in the GCC banking sector was confirmed. The result in Table (3) shows that BS is highly inter-correlated with organizational performance in the High-KS banks - banks in which BS and organizational performance, are associated with a high median for KS ($r = 0.550$). This relationship becomes insignificant in the Low-KS banks- banks in which BS and organizational performance, are associated with a low median for KS (0.242). These results indicate that the organizational performance would decrease if the bank does not possess the strategic knowledge resource required to support the increase of the bank strategic problems.

Table 2: Inter-correlation of the independent variable

Correlation with	Performance	High Performance	Low Performance	BS	KS
	<i>n</i> = 70	<i>n</i> =34	<i>n</i> =36	<i>n</i> =70	<i>n</i> =70
BS	0.650**	0.725**	0.237	-	0.559**
KS	0.652**	0.698**	0.024	0.559**	-

** P < 0.001

Table 3: Correlation between performance and BS across different levels of KS

Correlation with Performance	Controlling for	
	High-KS	Low-KS
	<i>n</i> = 34	<i>n</i> = 36
BS	.550**	.242 (0.301)

** P < 0.001

The result of the form perspective of the moderation effect of KS, which hypothesizes that the performance outcome is jointly determined by the interaction of the BS and KS was presented in Table (4). The results show that the interaction of BS and KS has an impact on the organizational performance. Thus, while BS by itself would have an effect on organizational performance ($r=0.650$) as shown in Table (2), bank would achieve more competitive position ($r=0.761$) in term of growth, profitability and reputation in conjunction with KS. Hence, the bank that joint it's KS with their BS will produce a synergy. This synergy would allow the bank to attain more competitive position through the joint effect of KS and BS.

Table 4: Correlation of KS alignment (fit) variable with performance

Correlation of KS fit variable with performance	Zero order	Partial
KS * BS	.761**	.027
LOW(KS * BS)	0.13	-.035
HIGH (KS * BS)	.801**	-.032

Controlling for linear (KS and BS) and Quadratic (KS² and BS²) effects of the fit variable's original components.

** Correlation in significant at the 0.001 level

The results of the assessment of the alignment between the different profiles of KS (AKS and CKS) and different typologies of BS (defender, prospector, and analyzers) were presented in Tables (5) and (6).The results presented in Table (5) show that the alignment between business strategic type of prospector and AKS, alignment between business strategic type of analyzer and AKS, and alignment between business strategic type of analyzer and CKS have an impact on the organizational performance. However, the alignment between business strategic type of defender and CKS has no impact on the performance.

Table 5: Correlation of the different KMBS-SA and performance (strength perspective of moderation)

Correlation with performance	Controlling for			
	High AKS <i>n</i> = 36	Low AKS <i>n</i> = 34	High CKS <i>n</i> = 35	Low AKS <i>n</i> = 35
Business strategic typology				
Prospector	0.008	0.430** (.011)	-	-
Defender	-	-	0.116	0.132
Analyzer	0.432** (.008)	0.209	0.135	0.470** (.004)

The results presented in Table (6) however, show that the interaction of AKS and prospector and the interaction between AKS and analyzer have the most impact on the organizational performance. However, the interaction between defender and CKS and that between analyzer and CKS has no impact on the performance.

Table 6: Correlation of the different KMBS-SA and performance (Form perspective of moderation)

Correlation of KS fit variable with performance	Zero order	Partial
BS typology		
AKS * Prospector	0.345**(.003)	-0.352**(.004)
AKS * Analyzer	0.558**(.000)	0.275**(.026)
CKS * Analyzer	0.146	-0.077
CKS * Defender	0.083	0.039

Controlling for linear (AKS, CKS, Prospector, Analyzer, and Defender) and Quadratic (AKS², CKS², Prospector², Analyzer², and Defender²) effects of the fit variable's original components.

*** Correlation in significant at the 0.001 level

5. Conclusion

The first overall conclusion demonstrated that there is a strong association between KM and BS and that the alignment between KS and BS clearly influenced the organizational performance. Thus, KMBS-SA is important to the organizational effectiveness of the GCC banks. This interpretation is based on the significant moderation which was exhibited by KS with respect to the performance. Hence, in order to execute their banks successfully, GCC banks should take KMBS-SA challenge as seriously as possible and consider the alignment implication before moving ahead to implement a strategic plan.

Moreover, the result showed that only the alignment between prospector strategic activities and AKS profile of KS and the alignment between business strategic type of analyzer with AKS and CKS profiles of KS have a positive effect on the organizational performance. However, the alignment between defender strategic activities and CKS profile of KS has insignificant effect on the organizational performance. These results indicate that GCC bank should not totally ignore any of the six knowledge strategic choices. Thus, these banks should establish a baseline of KS support for all aspects of BS, and then move from there to add more KS support to those business strategic dimensions that are most important. Even in the case where bank records very low in one or more strategic dimensions, a minimal level of knowledge strategic choices to support these strategic dimensions is better than no support. The banks moreover, need to determine different profiles for their KS to suit their strategic needs. Then the bank should direct knowledge resources to support these profiles.

The findings of the current study have radical management implications that will need to be verified in future studies using large sample size and in different types of organizations. This study could be also resumed to investigate the effect of the human and cultural factors on the KMBS-SA.

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