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COMPATIBILITY BETWEEN KNOWLEDGE MANAGEMENT STRATEGY AND THE NATURE OF KNOWLEDGE REQUIRED

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ABSTRACT

The objective of this work is to examine the compatibility between knowledge management strategies and the nature of knowledge required by the business strategy. By using questionnaire oriented to sample of managers and experts in three organizations, we chose two types of the nature of knowledge required (existing knowledge and new knowledge) and two types of knowledge management strategy (codification and personalization). To analyze the data of this research and examine its hypothesis, we utilized t-test to test the differences between means of paired variables: (existing knowledge–codification strategy), (new knowledge–personalization strategy), mixed knowledge–mixed strategy). The findings of this research indicate that almost in all organizations studied, when the required knowledge is the existing knowledge, the strategy chosen is the codification strategy and when the required knowledge is the new knowledge, the strategy chosen is the personalization strategy and finally when the required knowledge is a mixed knowledge, the strategy chosen is a mixed strategy.

Keywords: Knowledge Management Strategy, Knowledge Required, Business Strategy

INTRODUCTION

If organization has some initiatives toward knowledge management, it does not ensure that it is managing the right knowledge in the right way. To do this, organization must look for the knowledge required by its business strategy and then formulate its knowledge management strategy because the knowledge required supposedly derives from the business strategy.

However, this link between knowledge strategy and business strategy has been widely ignored in practice. In many firms, knowledge management efforts are divorced from strategic planning. Indeed, having an appropriate knowledge strategy in place is essential for assuring that knowledge efforts are being driven and are supporting the firm's competitive strategy (Michael, 1999).

Based on this evidence, the problem of this research has to be elicited as how formulate knowledge strategy which ensures knowledge required by business strategy? This means which knowledge should be managed and developed and how? Therefore, this research will firstly review the literature concerned this topic, then tests this problem in practice by investigating three Iraqi service organizations.

KNOWLEDGE MANAGEMENT STRATEGY

Knowledge management strategy can be viewed as ‘the overall approach an organization intends to take to align its knowledge resources and capabilities to the intellectual requirements of its business strategy.

Michael (1999) supposes that organizations do not ensure that they manage the right knowledge in the right way and his research with 25 firms has found the most important context for guiding knowledge management is the firm's strategy because it helps to identify knowledge management initiatives that support its purpose or mission, strengthen its competitive position, and create shareholder value.

However, various knowledge management strategies have been proposed. The major difference between the various approaches is that they emphasis different aspects of knowledge management. Thus, organizations must know which knowledge they need to manage and in which way (strategy) and for which end. It is a matter of selection a suitable KM strategy for particular situation which provides the suitable knowledge for the business strategy. To do so, organization must define the knowledge gap.

Knowledge Gap and the Knowledge Required

Organizations must learn how to link between their knowledge management strategy and their business strategy in a way that makes the knowledge management strategy in service of business strategy.

This link has been widely ignored in practice. To do so, organizations must determine which knowledge should be developed or acquired and how managed (knowledge management strategy) to response to business strategy.

As Maier, (2001) believe, KM strategies can be distinguished according to the type of knowledge that is focused.

To determine the type of knowledge required the organization may follow the steps below:

1- Mapping knowledge in order to identify the type of the existing knowledge. Mapping knowledge means knowing what the knowledge assets are for the organization, and which ones are important to the provision of knowledge needed to support and inform the key activities and overall processes of the business lines (Patrik, 2000). In fact, organizations need to perform a knowledge-based SWOT analysis mapping their knowledge resources and capabilities against their strategic opportunities and threats to better understand their points of advantage and weakness.
2- Studying the business strategy to determine the strategic gap (the deference between what is the organization doing now and what it must do in future).
3- Identifying the nature of knowledge required for the business strategy.
4- Identifying the knowledge gap (the deference between what firm knows and what it must know).
5- Formulating the knowledge management strategy basing on the knowledge required for the business strategy which must be able to close the strategic gap. Having formulated its business strategy, an organization can determine which knowledge should be developed or acquired. The nature of the knowledge required is derived from strategic gap and it must be provided by knowledge strategy to close knowledge gap and then, to close the strategic gap.

Based on Zack's framework we can illustrate this essay as in figure 1.

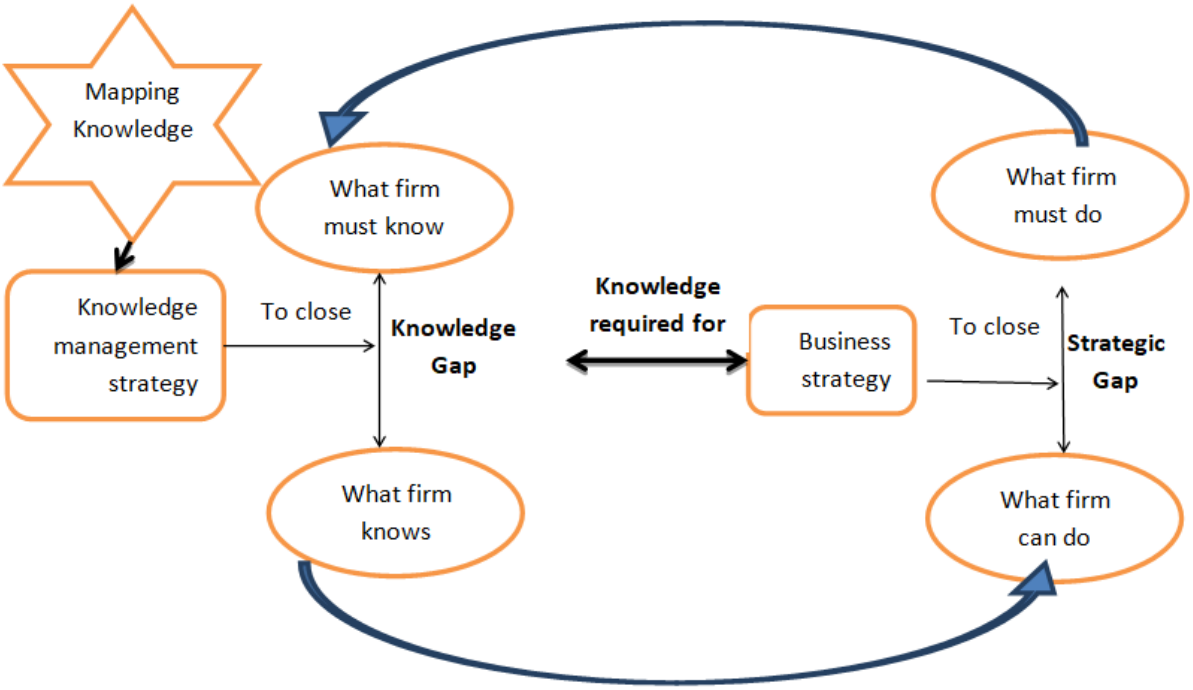

FIGURE 1
KNOWLEDGE MANAGEMENT STRATEGY ACCORDING TO KNOWLEDGE REQUIRED

Source: Based on Zack's framework, Zack Michael, 1999, Developing a knowledge strategy, California management Review, 41(3), Spring 1999, 136.

The Nature of Knowledge Required

In spite of the knowledge typology which is proposed by researchers such as tacit and explicit knowledge, internal and external knowledge, and core, advanced, and innovative knowledge (Zack Michael, 1999), this research focuses on two general types of nature of knowledge which are: new Knowledge and existing knowledge. New knowledge is the knowledge which has just been created or has to be created. It may be tacit knowledge which is embedded in complex organizational routines or experience or in the heads of personals, it may be from internal or external sources, and it may be innovative knowledge. Innovative knowledge enables company to be a market leader. It allows an organization to change the way a sector works and represents a significant differentiating factor from other organizations, on one hand (John, 1999**)**.

On the other hand, existing knowledge is the available knowledge from internal or external sources, which (Servin, 2005) called the (”old” knowledge), the knowledge that already exists within an organization. It is normally explicit knowledge, and may be core or advanced knowledge. Core knowledge is the critical knowledge to the attainment of the organization's goal and the fulfillment of its strategy (Filemon, 2008) but it tends to be commonly held by firms of an industry and therefore provides little advantage. Advanced knowledge gives an organization a competitive edge. It is specific knowledge which differentiates an organization from its competitors, either by knowing more than a competitor or by applying knowledge in different ways.

TYPES OF KM STRATEGY

There are many essays to classify KM Strategies, but we are going to present only three typologies from as KM Strategies which are:

1. Hansen, et al., (1999)"s two KM strategies of codification and personalization. On one hand, codification strategy in this respect means that the organization's knowledge management relies primarily on repositories of explicated information. Hansen, et al., (1999) describe how information technologies can contribute to this strategy by providing the means for storing the knowledge objects in databases and allowing many people to retrieve these objects without having to get in touch with the original creator. With this people-to-document strategy learning is highly dependent on the organization'sability to codify and store the correct knowledge *via* interchangeable "knowledge objects" and on the other hand its member's abilities to locate and use these objects. The personalization strategy, on the other hand, relies on person-to-person contact to allow for sharing experiences and knowledge directly between the organization's members.
2. Zack's (1999)"s tow KM strategies of exploration and exploitation. On one hand, the exploration strategy requires that an organization must be explorer to create or acquire a new knowledge required for its competitive strategy. On the other hand, exploitation strategy will be suitable when existing knowledge exceed requirements of firm's competitive strategy.
3. Von Krogh, et al., (2001)"s four KM strategies of: leveraging, expanding, appropriating, and probing. Leveraging strategy can be oriented towards achieving efficiency in operations and ensuring that the firm internally transfers existing knowledge from various knowledge domains. Expanding strategy implies increasing the scope and depth of knowledge domains by refining what is known and by bringing in additional expertise relevant for knowledge creation. Appropriating strategy is predominantly oriented externally on knowledge domains that do not already exist in the firm, capturing knowledge from external partners. The main vehicles for inter-organizational appropriation are strategic alliances, collaborations, and joint ventures. Finally, the probing strategy gives teams the responsibility to build new knowledge domains, identifying individuals interested in contributing to innovation.

COMBINATION THE NATURE OF THE KNOWLEDGE REQUIRED TO KM STRATEGY

Ones an organization identifies the nature of the knowledge required to close knowledge gap; it is be able to formulate a suitable way (strategy) to provide this knowledge required. So, the knowledge strategy depends on the knowledge required and an organization can combine its knowledge strategy with it.

Hence, to solve a problem or to close the knowledge gap, the organization may find the knowledge that it is needed elsewhere in the organization but not known or accessible to them. So, the first knowledge management initiative of many companies is that of finding out what they know, and taking steps to make that knowledge accessible throughout the organization. Specific approaches may include conducting a knowledge audit, mapping the organization's knowledge resources and flows, making tacit knowledge more explicit and putting in place mechanisms to move it more rapidly to where it is needed. Also, creating new knowledge can equally be approached in a number of ways such as through training, hiring external resources, bringing different people and their knowledge together to create fresh knowledge and insights, etc. It is also about innovation – making the transition from ideas to action more effective.

Therefore, it can be assumed that if the knowledge required is an existing knowledge, inside or outside the organization, the suitable KM strategy can be codification strategy, exploitation strategy, leveraging strategy, expanding strategy, or even appropriating strategy. And if the knowledge required is a new knowledge, the suitable KM strategy can be the personalization strategy, exploration strategy, or probing strategy.

METHODOLOGY

The Variables of this Research

To examine the extent in which an organization chooses its knowledge management strategy according to the nature of the knowledge required, we select two types of the nature of knowledge required: (existing knowledge, new knowledge) and two types of K.M. strategy: (codification strategy, personalization strategy), and there are the "mixed knowledge required (existing and new knowledge) and the mixed strategy (codification and personalization strategy), these are the main variables of this research.

Research Hypothesis

This research supposes that the knowledge management strategy must be chosen according to the type of the nature of the knowledge required. Therefore, this research based on three hypotheses as following:

1- There are no differences between the levels of existing knowledge and codification strategy in each of the organizations studied.
2- There are no differences between the levels of new knowledge and personalization strategy in each of the organizations studied.
3- There are no differences between the levels of mixed knowledge required and mixed strategy in each of the organizations studied.

Statistical Techniques Used

1- Cronbach"s Alpha to measure the reliability of the questionnaire.
2- The means to measure the level of the research variables in the organizations investigated.
3- Standard deviation to measure divergence of the values of responses from its means.
4- T-test for paired samples to test the differences between means of the nature of knowledge required and KM strategy.

Sample and Instrument of Data Collection

By using a questionnaire (with a scale of three levels 1,2,3) which measures the level of the variables of this research, we survey an intended sample of (34) managers and experts in three private organizations: (Alturath College, number of responders: 18;Alhilal Hospital, number of responders: 8;Alshafaa Hospital, number of responders: 8). The ratio of reliability of questionnaire is 90.4% which indicates high level of reliability as in table 1.

Table 1
RELIABILITY STATISTICS

Cronbach's Alpha	N of Items
0.904	6

DISCUSSIONS AND IMPLICATIONS

Firstly, the levels of variables for the total sample (n=34) are around the medium level with standard deviation indicates high harmony between the responders about the variables of the research, as in table 2.

Table 2
MEANS AND STD. DEVIATION OF MAIN VARIABLES OF TOTAL SAMPLE(N=34)

	N	Mean	Std. Deviation
existing knowledge	34	1.9118	0.43902
new knowledge	34	2.1176	0.61
codification strategy	34	2.1324	0.40469
personalization strategy	34	2.1397	0.43166
mix knowledge	34	2.0147	0.4755
mix strategy	34	2.136	0.3418
Valid N (listwise)	34		

Secondly, as table 3 indicates the level of variables in Alturath College are the highest and in Alhilal Hospital and Alshafaa Hospital they are near each other with standard deviation indicates high harmony between the responders about the variables of the research. The highest independent variable in Alturath College is "new knowledge" with mean (2.17), and the highest dependent variable is "codification Strategy" with mean (2.24), which indicates that the required knowledge in spite of it is more new knowledge than existing knowledge, the KM strategy is more codification strategy than personalization strategy in Alturath College. The highest independent variable in Alhilal Hospital is "new knowledge" with mean (2.10), and the highest dependent variable is " codification Strategy" with mean (2.28), which indicates that the required knowledge in spite of it is more new knowledge than existing knowledge, the KM strategy is more codification strategy than personalization strategy in Alhilal Hospital. Finally, the highest independent variable in Alshafaa Hospital is "new knowledge" with mean (2.02), and the highest dependent variable is "personalization strategy" with mean (2.16), which indicate that the knowledge required is more a new knowledge than existing knowledge, therefore, the strategy is more personalization strategy than codification strategy in Alshafaa Hospital.

Table 3
MEANS AND STD. DEVIATION OF ITEMS AND VARIABLES COMPARE ORGANIZATION RESEARCHED

variables		Items	Alturath College		Alhilal Hospital		Alshafaa Hospital	
			Mean	S.D	Mean	S.D	Mean	S.D
Existing knowledge	X1	The available knowledge is sufficient to formulate and execute the new organization's strategy.	2.22	0.73	1.5	0.76	2	0.53
	X2	The organization organizes and combines the available knowledge to close the knowledge gap.	2.39	0.5	2.13	0.64	1.75	0.71
	X3	The organization focuses on using the IT to handle and exploit the available knowledge instead of creating new knowledge.	2.28	0.67	2	0.93	1.63	0.74
	X4	The organization can't create new knowledge.	1.33	0.49	1.5	0.54	1.5	0.53
Mean and S.D of Existing knowledge			2.06	0.43	1.78	0.49	1.72	0.31
New knowledge	X5	The organization tends to explore new knowledge.	2.33	0.69	2.13	0.83	2.25	0.46

	X6	The organization tries to create new knowledge to solve the complex problem.	2.06	0.8	1.88	0.83	1.63	0.52
	X7	The organization creates new knowledge to formulate and execute its new strategies.	2	0.77	2.1	0.83	2	0.53
	X8	Our organization relies on exploring and investing the tacit knowledge embedded in the head of employees through their skills and experiences.	2.28	0.75	2.25	0.71	2.25	0.89
Mean and S.D. of New knowledge			2.17	0.68	2.1	0.71	2.03	0.36
Mix Knowledge			2.11	0.53	1.94	0.53	1.88	0.23
Codification Strategy	X9	The organization relies primarily on repositories of explicated information.	2.33	0.59	3	0	1.88	0.83
	X10	The organization uses the information technologies to provide knowledge bases and allow many people to retrieve the knowledge required.	2.17	0.79	2	0.76	1.38	0.52
	X11	The existing knowledge exceeds the requirements of the firm's competitive strategy and it need only to organize and combine it.	2	0.49	1.88	0.83	1.5	0.76
	X12	Our organization is oriented towards achieving efficiency in operations and ensuring that the firm internally transfers and shares existing knowledge.	2.44	0.7	2.25	0.46	2.25	0.71
Mean and S.D. of Codification Strategy:			2.24	0.4	2.28	0.36	1.75	0.19
Personalization strategy	X13	The organization relies on person – to- person contact to allow for sharing experiences and knowledge between the organization's members.	2.56	0.62	2.25	0.71	2.25	0.46
	X14	The organization has to increase the scope and depth of knowledge domains by refining what is known and bringing additional expertise for knowledge creation.	2.17	0.79	2.13	0.64	1.63	0.52
	X15	Our organization attempts to explore new knowledge required for its new strategies.	2	0.69	1.5	0.53	2.5	0.53
	X16	Our organization gives teams the responsibility to build new knowledge by identifying and supporting individuals interested in innovation.	2.11	0.68	2	0.76	2.25	0.71
Mean and S.D. of Personalization strategy:			2.21	0.44	1.97	0.47	2.16	0.38
Mean of Mix Strategy			2.22	0.37	2.23	0.38	1.95	0.16

Thirdly, table 4 shows the results of t-test to measure whether the differences between means of variables are significant. The findings show that the differences between existing knowledge and codification strategy are insignificant in Alturath College (0.079) (t=-1.871), it is

less than schedule t (2.110), and in Alshafaa Hospital (0.763) (t=-0.314), it is less than schedule t (2.365), otherwise, the differences between existing knowledge and codification strategy are significant (0.037) (t=-2.567), it is larger than schedule t (2.365), in Alhilal Hospital. The differences between new knowledge and personalization strategy are insignificant in all the organization studied, in Alturath College (0.636) (t=-0.483), it is less than schedule t, in Alhilal Hospital (0.613) (t=0.529), it is less than schedule t, and in Alshafaa Hospital (0.351) (t=-1.000), it is less than schedule t. The differences between mixed knowledge and mixed strategy are insignificant in all the organization studied, in Alturath College (0.167) (t=-1.445), it is less than schedule t, in Alhilal Hospital (0.294) (t=-1.134), it is less than schedule t, and in Alshafaa Hospital (0.448) (t=-0.804), it is less than schedule t.

Table 4
DIFFERENCES BETWEEN MEANS OF PAIRED VARIABLES
(KNOWLEDGE REQUIRED – KM.STRATEGY)

Differences between means of paired variables	Alturath College	Alhilal Hospital	Alshafaa Hospital
Existing knowledge-Codification Strategy	(2.06-2.24) insignificant (0.079) (t=-1.871)	(1.78-2.28) significant (0.037) (t=-2.567)	(1.72-1.75) insignificant (0.763) (t=-0.314)
New knowledge - Personalization strategy	(2.17-2.21)insignificant (0.636) (t=-0.483)	(2.10-1.97) insignificant (0.613) (t=0.529)	(2.03-2.16) insignificant (0.351) (t=-1.000)
mixed Knowledge-mixed strategy	(2.11-2.22) insignificant (0.167) (t=-1.445)	(1.94-2.23) insignificant (0.294) (t=-1.134)	(1.88-1.95) insignificant (0.448) (t=-0.804)

CONCLUSION

The objective of this research is to show whether there is combination between the nature of the knowledge required and the suitable KM strategy. Using t-test to measure the differences between means of paired variables, and to assume that if the knowledge required was only the "existing knowledge", the suitable strategy is the "codification strategy", and if the knowledge required was only the "new knowledge", the suitable strategy is the "personalization strategy", but if the required knowledge was mix, the KM strategy is also mix. So, as it exposed in table 4, the differences between means of all the paired variables were insignificant except between "existing knowledge" and "codification strategy in Alhilal hospital, it was significant. These findings prove the harmony between all the paired variables compared except between "existing knowledge" and "codification strategy in Alhilal hospital. Therefore, all hypothesis are acceptable in all organizations studied except in Alhilal hospital concerning the paired variables, "existing knowledge" and "codification strategy, may be due to the more focus on personalization strategy than on codification strategy, otherwise, in all organizations studied, when the required knowledge is the existing knowledge, the strategy chosen is the codification strategy and when the required knowledge is the new knowledge, the strategy chosen is the personalization strategy and finally when the required knowledge is mixed knowledge, the strategy chosen is mixed strategy.

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