The study of relationship between organizational structure and strategic knowledge management in Islamic Azad University, Kermanshah Branch

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ABSTRACT

The application of strategic knowledge management requires specific organization structure due to unique and particular characteristics of knowledge. In other words, by passing through industry age toward knowledge age, strategic knowledge management is considered by organizations dramatically and by considering this new competitive edge, universities should prepare an appropriate background for strategic knowledge management (encoding strategy and personalizing strategy). The primary purpose of this research is to find out whether there is a meaningful relationship between organizational structure (recognition, focus and complexity) and strategic knowledge management (codification strategy and personalization strategy) in Azad University, Kermanshah. Organizational structure is considered as independent variables and strategic knowledge management is dependent variables. When it comes to the purpose, present research is an applicable research and based on its nature and method, it is descriptive and survey research. Statistical society consists of university president, vise-president and dean of faculties of Azad University, Kermanshah; during a period of the first half of the year of 2011. Therefore, the sampling method is stratified sampling. Statistical society contains 60 people who are adjusted to 52 sample people by the use of Morgan table. Data collection tool is questionnaire structure questionnaire of Robbins and strategic knowledge management questionnaire of Carolina & ÁngelL. The results of the research show that there is a meaningful relationship between organizational structure and strategic knowledge management in Azad University, Kermanshah, according to codification and personalization strategy. Some suggestions are offered at the end of this research.

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1. Introduction

Basically, knowledge management is an activity, which focuses on strategies and decision for Human-centric intellectual capital management. With the goal of efficient and effective use of current knowledge and inclusion it in the form of goods and services, it can improve basic competencies of the organization to achieve competitive advantage. Knowledge management concept is presented with different definitions from the perspective of various experts. Some of definitions focus on
operational aspects of knowledge management whereas some others rely on conceptual subjects. Some authors consider knowledge management with mechanical approach and some of them with humanistic perspective. Knowledge management is used to describe the application of any new technology with the aim of trying to organize the intellectual capital of an organization. It may be equivalent to improperly defined data processing or information management, or even exclusively be considered a technical and technological process. Therefore, knowledge management is not a set of technical approaches for a problem but it is a social and humanitarian process and it may be facilitated through technical and technological approaches. Thus, technologies and social systems have similar importance in knowledge management. Convert and change of data to information is leading by information technology in effective way. Therefore, information technology is not a good equivalent to convert information into knowledge. Converting information into knowledge through social approaches can be accomplished more efficiently. This is one reason we believe that knowledge management will perform better with optimization of technical and social sub-systems. The roots of this view can be seeking in technical and social approach of organization. Therefore, knowledge management as an effective mechanism to support human interactions and collaborative processes is considered a development form human resource management and information technology. Nonaka and Takeuchi (1995) integrated both technical and social dimensions of knowledge management and introduced the idea of knowledge creation, which oversees the process of interaction and exchange between two types of tacit and explicit knowledge. They introduced knowledge creation as "The ability of an organization to create knowledge, its dissemination throughout the organization and inclusion it in the form of goods, services and systems". Despite the fact that there are various types and definitions of knowledge management, it is essential to understand that people in the organization how to learn knowledge, how to act on what they learned and share it with others. Within any organization, there are four conditions of awareness. 1) Aware organization: the organization is aware of what it knows. 2) Aware organization: organization is aware of what not know. 3) Unaware organization: organization is not aware of what it knows. 4) Unaware organization: organization is not aware of what not know.

An organization, depending on the scope of various activities can be placed in one of four conditions or more. This matrix can be considered the starting point to define the required strategies to define the available knowledge and the effective management. Therefore, based on the distinction between two types of explicit and tacit knowledge, people suggest two different strategies for managing knowledge in organizations: explicit and tacit oriented knowledge management strategy (Hosseingholizade et al., 2008). However, Hansen et al. (1999) stated that strategies of knowledge management can initially be classified based on two principles, which include: knowledge management center and knowledge management resources.

1.1 Codification Strategy

Codification strategy is centralized on the management application and storage systematically based on knowledge capital of an organization. Fast response to customers, reducing the cost of knowledge exchange, and encoding abilities of an organization using information technology reduces complexity, provides better access and reuse of knowledge and they are the key axes of this strategy. Organization with using this strategy can achieve organizational performance and economic with reused of knowledge encoded (Keskin, 2005). In principled manner codification strategy, requires the storage of knowledge in terms of different databases so that each member of the organization can easily retrieve intended knowledge. According to Sallis and Jones (2002), awareness is where and how knowledge is either created or used, effectively. To use codification strategy, we need to execute some steps starting from existing knowledge audit in the organization and continuing with classification, documentation, storing and mapping of knowledge. In audit system, knowledge is evaluated based on the abilities and shortcomings knowledge of an organization and appropriate methods of knowledge processing are determined based on organization needs so that it is possible to identify internal factors, which could be prevented of sharing knowledge. The aim of auditing
knowledge is to create a purposeful field and clear definitions on what part of knowledge is missing, who owns the knowledge and how should use the knowledge. Therefore, the primary goals of knowledge can be categorized as 1) to identify current knowledge in specific field; 2) to identify the missing knowledge and 3) to provide suggestions to management to improve the existing situation for activities in the field intended of knowledge management (Morey et al., 2002). Viig (1997) presented the following points to some of the methods of knowledge analysis, which have proportion of audit students:

- Survey of knowledge, through questionnaires, in order to provide a general overview from positions of knowledge in the organization,
- Group meetings middle management, in order to identify the necessary conditions for creating a knowledge-based environment,
- Analysis of work environment, in order to identify of knowledge and define its role,
- Analysis of basis and foundation of knowledge, for recognition of accumulated of knowledge and its details, mapping of knowledge and locating of knowledge, practical Analysis of the main of knowledge, determining sensitive and important fields of knowledge,
- Requirements analysis and necessity of application of knowledge to identify how to use knowledge for business goals and to determine how to develop and improve the conditions,
- Drawing façade of knowledge (history, of knowledge) for detailed recognition of knowledge work and play a role of knowledge in distributing valuable products,
- Knowledge flow analysis, to obtain a general picture of exchange of knowledge and business process inputs.

Undoubtedly, finding knowledge resources is very important for codification. If we do not know where the source of knowledge is, it means that we do not know what knowledge is. In fact, the primary objective of plan and design is to guide and it is not the source of knowledge. Mapping of the knowledge means finding position and places of knowledge in organization and spread an image to show them. The main and clearer purpose benefit of knowledge map is to give appropriate address of a place to look up in organization. Therefore, it is required to gain expertise, which is associated with the offices and documents that contain knowledge. It can also introduce the owners of knowledge. Codification of knowledge in various forms of auditing, storage and mapping of knowledge, often can be achieved with the use of information technology. Therefore, the most striking aspect of technical knowledge management is an approach to use information and communication technology (ICT) for discovery and retrieval of knowledge, storage and making accessible it for whole of organization. In other words: technology makes easy organizational knowledge management.

1.2 Personalization Strategy

Unlike codification strategy, that is fully linked with explicit and documentation of available knowledge in the organization, personalization strategy fundamentally depends on everyone within the organization: People who create their knowledge by sharing it with their interactions with others (Smith, 2004). Personalization strategy emphasizes the interaction among people and this strategy refers to guidance and advice through people with experience, which also involves face to face help by experts (Martini and pellgrini, 2005). Emphasis on knowledge sharing through interactions and conversations are formed by social networks, professional groups or teams are considered the main axes of personalization strategy. Odell and Grayson (1999) believed that "learning and knowledge sharing are the two social activities. A social interaction has focused on interaction of individual behavior with learning, sharing and transmission of values, the assumptions, insights and involves
informal gatherings, conversations, social events the collective wisdom, networks and consultation applications ". If during exchange and sharing of knowledge trust does not exist, and there is lack of honesty and sincerity among employees, people cannot easily gain knowledge from social resources or retrieve it. Thus, creation of trust through facilitating social interactions is a long-term strategy, which needs some strong managers who understand humanitarian behavior and capable of making change within organizational culture. Hence, the working environment should be full of trust and honesty. The study of many researchers confirms that organizational culture based on trust raises people to interact and share knowledge with others and it has a great impact on other organizational phenomena, such as job satisfaction, stress, organizational commitment and productivity.

In summary, we must note that knowledge management requires making use of two strategies including codification and personalization. Each of these two strategies has some requirements, which impact on effectiveness of knowledge management (Hosseingholizade et al., 2008). Knowledge sharing, in the first stage of knowledge management process requires the exchange of tacit knowledge, experience and expertise lies in the minds of people. Therefore, it is necessary to use personalization strategy. However, use of the information and communication technologies, such as intranet and Internet, in mapping the knowledge and networking allow the people to search the source of required knowledge and to retrieve it. Hence, the nature and types of interpersonal interactions, appears another form and accelerate its process.

The successful implementation of strategic knowledge management in organizations requires appropriate organizational structure. Organizational structure is an officially established system of hierarchy of tasks, duties, responsibilities and affairs of an organization, which supervises how the economical policies of organization must be defined and the way resources are used to achieve the mission of the company. Organization structural chart is depicted in hierarchy of organization order from the lowest to the highest in authority. It is a representation of organization chart indicating the full mechanism and total arrangement of activities. In representation of organization and structural pattern, there is a reference to 3 items: structural pattern shows how official reporting is done within the organization, structural pattern shows how member staff team up in different division's branches, sections of departments. The last economic structural part of organization is devoted to the systems in which all activities in different parts of the company are unified and handled. The organizational structure affects the personnel in contact with all staff members but more or less it is an abstract entity (Khanifer & Vkili, 2008).

1.2.1 Recognize

Recognize indicates the standard level of tasks accomplished (Robbins, 2008). Once rigid restrictive measures eclipsed working condition in firm, there was less room for innovation and new ideas so flexibility in doing the organization tasks gives rise to do the routines the organization smoothly and this essentially promotes the management of knowledge within firm. The discovery of knowledge by research presupposes variability. While unpredictable matters are increasing, organizations should make a difference in structure and the processes of handling their daily tasks.

Officialdom Recognize blocks creativity and innovation within an organization routines and Recognize decreases the chance of innovation. Insisting less on Recognize of officialdom, duplicates the chance for new approaches charged with new ideas. Communicating machinery sub formal interaction plays a part in transfer of knowledge and advance the promotion of organization mission. Recognize of officialdom impedes the communication and interactions contributing to the quest for knowledge. Less Recognize in officialdom in organization structure paves the way for staffs' establishing a good contact with each other to discover pursue and transfer of knowledge (Monavarian et al., 2007).
1.2.2 Focus

Focus places, positions or levels in which decisions are made, top job in high level of organization authority and management concentration of power at a unique level official stands and structure complexity of lower level. Deciding strategic mission and choices signifies lack of focus and lack of concentration of power at a specific stand level. (Lack of transfer of power from above) sub formal structure complexity at high level represents a decentralized system. For novice staff in an organization Focus works best but for professional staff decentralized set up is more operative. Strategic decision has less impact on the routine activities of professional staff. Contrary to this rule, it affects nonprofessional staff so much (Robbins, 2007). Scientific management defines definition for labor and the way it is actualized. "Controlling tower", in an organization rests and resides up on the top of the pyramid of the hierarchy of management and the staff are supposed to follow procedure as being told of. In organizations with scientific orientation the staff in a division works with team effort in concert as a unit in trial for achieving the mission and the role function may change in the process or it may be redefined.

Staffs are initiated moved and motivated as to do their best as super staff. In a centralized approach there is less time and place for proposing creative innovative atmosphere (Monavarian et al., 2007).

1.2.3 Complexity

This is a reference to complexity of tasks or minor systems operating within the organization in other words, complexity in horizontal vertical and slope like structural within organization chart. Horizontal complexity reflects the job positions (title) or division in the organization horizontal structure. The most important element, which represents horizontal structure within organization is an allusion to specialization and portioning within the organization. Vertical complexity is the number of division level within the hierarchy of orders in the organization. It refers to the depth and height extension of organizational structure and slope like complexity refers to sites and geographical positions. There is a lot of mutual multilateral in tractions between these triple parts in the large organization. However, in small organization, the impact mentioned above is less and there is much less interaction. Generally speaking, these triple aspects cannot be materialized at the same time with each other. For instance, faculties are divided and they are arranged horizontally and there are less slope like distribution but more vertical separation. By increasing the complexity of mangers' responsibilities there is an increasing demand on different activities in line with organization's objectives. On the other hand, there is a link between complexity and Recognize in an organization. In the place where technical specialization is met by staff, the task is limited or it is routine (Robin, 2008).

Considering the increasing importance of management of knowledge in organization and reliance of most organizational jobs on knowledge, this study tries to undertake a search for a proper structure based on strategic management and the way this knowledge is operative within the organization. Therefore, this research seeks to answer this question: Is there meaningful relationship between organization structure and management of strategic knowledge in Islamic Azad university of Kermanshah or not?

2. Background and review of literature

There are different studies associated with organizational structure and management of knowledge. Sader et al. (2011) analyzed the strategies of management of knowledge, organizational learning and innovation in Kerman cable industry. The result of the research indicated that there was a positive relationship between strategies of knowledge management, organizational learning and organizational innovation.
Liao et al. (2011) investigated whether knowledge management can be a mediator between organizational structure and organization environment. Zheng et al. (2010) studied the role of culture, structure, organizational effectiveness, strategy on knowledge management. The results showed that the knowledge management is a mediator between organization culture effects on organizational effectiveness. In addition, knowledge management is a mediator between organization structure effects and strategy effects on organizational effectiveness. Hosseini (2010) studied the possibility of knowledge management and its implementation considering in a particular region in Tehran. Vaeizi and Mouslemi (2009) dealt with recognition of different organizational factors proactive in ideal implementation of knowledge management. The results indicated that there was a significant, meaningful relationship between organizational aspects and knowledge management.

Goodarzi et al. (2009) analyzed the relationship between organizational cultures with knowledge management among physical education headquarters managers. The results showed no connection between organizational culture and creation of knowledge but there was a significant relationship between high level of culture and high level of transfer of knowledge. Sadameri et al. (2008) studied the relationship among organizational factors including structure and technology, physical education of organization with strategy of knowledge management. They found that there was a significant and meaningful relationship between organizational factors and contribution aspects of knowledge transfer but no link between ICT recognition and creating knowledge management.

Naghipour et al. (2008) investigated organizational culture and organization structure considering knowledge management in medical college's central libraries. The result of their study showed that the structural order for knowledge management was in "medium" range, but the organizational culture for knowledge management was in appropriate level. Babazadeh (2007) performed another investigation for measuring the impact of knowledge management in one of Iranian public universities and the results indicated that in the context of organizational structure, there is no capacity for implementing the processes. In addition, they found that in the context of organization culture with exception of publication of knowledge, the other processes were not in a good condition. Zahedi and Khayerandish (2007) investigated the organizational structure factors in Knowledge-based economy. Based on their study, the organization should pave the way and prepare the ground and deal with obstacles in the way of growth and advancement originating from a non–competitive economic. Thus, it is an urgent need for organizations to prepare the ground in economic field act dynamically based on Meta – the critical grounds promoting proactive economic growth in new economics which is challenging competitive in potential.

Claver and Eva (2007) investigated the features of structural organization of some companies in terms of the impact of knowledge management and its support within the organization. The results of their survey showed that companies with flexible structural organization and with less hierarchy of order promote social connection team efforts among their staff and it is practically possible to establish a sort of social link, easily. Askari (2005) analyzed the connection between organization structural pattern and culture with knowledge management in ministry of labor and social affairs. The result of study showed there was a meaningful relationship between organizational structure and knowledge management.

Jennex and Olfman (2004) reported that the organizational culture, education and involvement of staff in procedures, planning, decision making assessment and being involved in the process of knowledge are key factors to an up to date knowledge management. Roelandet and Ehssan (2004) studied organizational culture, organizational structure, technology and human resource knowledge capability in ministry of labor & development in Malaysia. They found that there was a meaningful relationship between these mentioned factors, knowledge management, and its transfer. Lee and Choi (2003) analyzed the role of knowledge management in governmental agencies and their result showed that the measures were taken extremely political and it widely affected the public in governmental sector and general public.
3. Research hypotheses

3.1 Main hypotheses

There is a meaningful relationship between organization structure and management of strategic knowledge in Islamic Azad university of Kermanshah

3.2 Minor hypotheses

1. There is a meaningful relationship between Recognize and management of strategic knowledge in Islamic Azad university of Kermanshah

2. There is a meaningful relationship between focus and management of strategic knowledge in Islamic Azad university of Kermanshah

3. There is a meaningful relationship between complexity and management of strategic knowledge in Islamic Azad university of Kermanshah

![Fig. 1. Conceptual model of variables](image)

4. Research Methodology

The proposed study of this paper used a standard questionnaire to examine the effects of different factors influencing the proposed hypothesis. The population of our survey included 60 people and we chose 52 as a sample study based on Morgan table. Cronbach alpha was calculated as 0.704 for organizational structure and 0.846 for knowledge management, which are well above the minimum acceptable level of 0.70. Table 1 shows details of our survey for three sub-hypotheses.

<table>
<thead>
<tr>
<th>Hypothetical</th>
<th>Hypothesis 1</th>
<th>Hypothesis 2</th>
<th>Hypothesis 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>codification strategic</td>
<td>codification strategic</td>
<td>codification strategic</td>
<td>codification strategic</td>
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<tr>
<td>personalization strategic</td>
<td>personalization strategic</td>
<td>personalization strategic</td>
<td>personalization strategic</td>
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<tr>
<td>Relationship</td>
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<td>Pearson</td>
<td>Pearson</td>
</tr>
<tr>
<td>Type</td>
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<td>Linear</td>
<td>Linear</td>
</tr>
<tr>
<td>Std. Error</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>N</td>
<td>52</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.302</td>
<td>0.304</td>
<td>0.337</td>
</tr>
<tr>
<td>$\bar{R}^2$</td>
<td>0.091</td>
<td>0.120</td>
<td>0.114</td>
</tr>
<tr>
<td>P-value</td>
<td>0.030</td>
<td>0.028</td>
<td>0.014</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.095</td>
<td>0.095</td>
<td>0.095</td>
</tr>
<tr>
<td>Hypothesis Verification</td>
<td>$H_1$</td>
<td>$H_1$</td>
<td>$H_1$</td>
</tr>
</tbody>
</table>
As we can observe from the results of Table 1, there are meaningful relationships between Recognize, focus and complexity and management of strategic knowledge when the level of significance is five percent. Table 2 shows details of the proposed study for the main hypothesis.

### Table 2
The results of testing the main hypothesis

<table>
<thead>
<tr>
<th>Hypothetical features</th>
<th>Codification strategy</th>
<th>Personalization strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main Hypothesis</strong></td>
<td><strong>Stepwise</strong></td>
<td><strong>Stepwise</strong></td>
</tr>
<tr>
<td>Method</td>
<td>Linear</td>
<td>Linear</td>
</tr>
<tr>
<td>Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Std. Error</td>
<td>0.05</td>
<td>0.05</td>
</tr>
<tr>
<td>( R )</td>
<td>0.343</td>
<td>0.346</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.118</td>
<td>0.120</td>
</tr>
<tr>
<td>( \bar{R}^2 )</td>
<td>0.100</td>
<td>0.102</td>
</tr>
<tr>
<td>F</td>
<td>6.668</td>
<td>6.802</td>
</tr>
<tr>
<td>( \beta )</td>
<td>0.343</td>
<td>0.346</td>
</tr>
<tr>
<td>P-value</td>
<td>0.013</td>
<td>0.012</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.095</td>
<td>0.095</td>
</tr>
<tr>
<td>Hypothesis Verification</td>
<td>( H_1 )</td>
<td>( H_1 )</td>
</tr>
</tbody>
</table>

As we can observe from the results of Table 2, Codification strategy, is executed through one step, in first step complexity variable is entered into the equation because it has the highest influence, other variables are eliminated since they do not have meaningful impact. In this case, the amount of multiple R for complexity is equal to 0.343, which shows that these variables can 0.343 Codification strategies predictive.

Personalization strategy is executed through one step, in the first step, Recognize variable is entered into the equation because it has the highest impact, other variables are eliminated since they do not have meaningful impact. In this case, the amount of multiple R for Recognize is equal to 0.346, which shows that these variables can 0.346 Personalization strategies predictive.

Finally, at the assurance level of 0.95 and with respect to meaningful level of 0.13 and 0.12, there are some meaningful relationships between organization structural and strategic knowledge management according to codification & personalization strategy at Azad university of Kermanshah.

### 5. Applicable recommendations

In order to achieve success in organization and develop strategic knowledge management it is necessary that structural organizations, one of the most important aspects of organization, possess certain qualities and attributes. Describing structural organization and strategic knowledge management in Islamic Azad University in Kermanshah branch is the main target of this present research. The results of this survey approve there is a meaningful relationship between organization structure and management of strategic knowledge in Islamic Azad university of Kermanshah.

1. In regard to Recognize the management of the organization handles such measures within the organization. Reduction of rules and regulations and formal procedures in written form on the specific instances including how to handle duties & tasks, the organization responsibilities and tasks. It is vital not to limit contacts and communication in the organization since it affects the productivity. Also we do not have to ignore the present mechanism operative with the organization rules, regulations routines, since these tips, tools and techniques promote the development strategy in the organizations.

2. In terms of focus, the management of organization needs to undertake some measures to increase the relationship and communication within the organization informally. We also need to assign more
choice, option, power to the staff associated with their duties. We need to transfer more power and liberty to employees, putting less emphasis on rigid. We need to approve guidelines, procedures promoting ease of communication, among different parts, sections of organization providing the best bulk of information technical data for making better decision at each & every level convene official meeting for exchange of information between managers, staff promoting opportunities for staff to have access to information databank, documents

3. Based on these findings, it is crystal clear that in order to implement strategic management of knowledge, many mechanical structures and hierarchies should go through the process of change & improvement.

6. Conclusion

In this paper, we have presented an empirical study to find out the relationship between organization structure and management of strategic knowledge in Islamic Azad university of Kermanshah. The proposed study chose a sample of 52 people who worked for this organization, distributed a standard questionnaire and analyzed the results. The results indicated that there were some meaningful relationships between organization structural and strategic knowledge management according to codification & personalization strategy at Azad university of Kermanshah. There were also three sub-hypotheses in this survey including the relationship between Recognize and management of strategic knowledge, the relationship between focus and management of strategic knowledge and the relationship between complexity and management of strategic knowledge in Islamic Azad university of Kermanshah and all three relationships were determined to be meaningful and positive.

As a future research, one can look into the effects of aspects of organization on strategic knowledge management, the atmosphere of organization and its impacts on strategic knowledge management, the effects of organizational Culture on strategic knowledge management, the effects of Information Technology on strategic knowledge management and the impacts of managerial directorship on strategic knowledge management. These are important issues and we leave it for interested researchers to consider the as future studies.

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