The Impact of Dynamic Capabilities on Knowledge Management in Kurdistan Region of Iraq

Tvezhar Kamal, Shram Shawkat

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The Impact of Dynamic Capabilities on Knowledge Management in Kurdistan Region of Iraq

Tvezhar Kamal
Tishk International University, Sulaymaniyah Campus
Business and Management Department
tvezhar.kamal@std.tiu.edu.iq

Shram Shawkat
Tishk International University, Sulaymaniyah Campus
Business and Management Department
shram.shawkat@std.tiu.edu.iq

Abstract

There are different factors that contribute and affect Knowledge Management such as the management system, teamwork, and dynamic capabilities within the organization. The aim of this study is to investigate dynamic capabilities of a firm and their impact on knowledge management at various companies in the Kurdistan Region of Iraq. Furthermore, it is aimed to examine the effects of employee experience on dynamic capabilities and knowledge management. Driven from the results, it was observed that organizational dynamics is one of the significant indicators of knowledge management. Secondly, the findings have revealed that experience is an important moderator between organizational dynamics and knowledge management.

Keywords: Knowledge management, explicit knowledge, tacit knowledge, Kurdistan Region of Iraq, knowledge generation, knowledge utilization

Introduction

Understanding knowledge management is one of the key factors to work in a successful organization. The classic definition by Tom Davenport that originated in the 90's is “knowledge management is the process of capturing, distributing, and using the knowledge” (Davenport, 2008) even though knowledge management was closely related to the excellence of technology and the internet (Koenig, 2018). Working in groups, companies and organizations always required individuals to use pre-existing information and the application of those information to improve innovation in the workplace (Koenig, 2018). One of the most essential steps of working for an organization and taking responsibilities is being able to know and understand the different forms of knowledge that exist (Hajric, 2018). This is easily identified by knowing the difference between knowledge that is kept and documented whereas the knowledge is gained through years of experience (Koenig, 2018).

Hajric (2018) noted the importance of some steps to be taken before reaching the complete stage of knowledge management. The first step is knowledge generation. Knowledge generation is basically generation of the required information with peers and colleagues (Babu et al., 2008). Normally, organizations tend to highlight the importance of knowledge generation without the work space to ensure that employees are able to work collaboratively on problem solving situations to be able to achieve the required goals of the organization (Babu et al., 2008). Second important step in the knowledge management quest is the codification process, which requires the data and knowledge to be documented and codified (Zaïm et al., 2020). While sharing the experience is extremely important, storing them is another crucial factor for the success of knowledge management (Hajric, 2008; Budur,
2018). The third step is the knowledge transfer. Similar to the knowledge generation process, it involves the transferring process of codified knowledge among the organizational members to facilitate their objective attainments (Hansen et al., 1999). And the last step is the utilization process, that is, the proper usage of the knowledge (Zaim et al., 2019).

Furthermore, scholars noted that when companies can manage the connection between knowledge management processes and their dynamic capabilities, they may maintain a long-time effectiveness within the company that in turn positively affect their competitive advantage in the market (Teece, 2008; Eisenhardt and Martin, 2000). In this respect, Teece (2008) defined the dynamic capabilities as the processes and policies of any organization to adapt environmental changes. Adapting organizational policies, structure or culture to fluctuations in the environment provide a company with internal and external effectiveness to reach innovation (Bayiz Ahmad et al., 2019; Hadi et al., 2018).

Based on the success of the effective management (Demir and Budur, 2019) and constructive internal effectiveness within the company (Budur and Demir, 2019; Mohammed et al., 2020), application of the knowledge management is positively related to long term survival of the firm (Zaim et al., 2013;). The aim of the study is to investigate the relationship between dynamic capabilities and knowledge management processes of the firm in the Kurdistan region of Iraq. Accordingly, Kurdistan is an emerging market for a decade (Budur, 2018a; Budur & Poturak, 2020). Because of lack of international investments in the region (Budur et al., 2019; Demir et al., 2019) whenever the economic and politic sustainability are provided, new enterprises emerge rapidly (Budur & Poturak, 2021; Demir et al., 2020; Demir & Bulut, 2019; Yildiz & Budur, 2019) in the market. In accordance with the aim of this study, it is perceived that knowledge management practices might positively and significantly leverage organizational effectiveness in the long term based on the sustainability in the region.

Literature Review

Davenport and Prusak in 1998 identified ‘knowledge’ as a continuous mix that it is the framework of experience, values, information as well as insight to the gateway of new experience to learn more (Pauleen, 2017). Besides, Nonoka & Takeuchi (1995) stated that knowledge is about understanding the context of information that exists, which motivates people towards proper knowledge and information in the work field. Additionally, Zaim (2006) put forward that the knowledge is only useful when it is shared with different people in the company. Scholars proposed four different types and modes of knowledge transfer which is called as SECI model. These types are: (i) socialization (sharing the tacit knowledge such as experiences and skills with other people such as workers and colleagues through observation, imitation, and practice); (ii) externalization (shaping the knowledge into metaphors and concepts with hypothesis and models); (iii) combination (classification of different types of knowledge to generate new knowledge); and (iv) internalization is the transformation of external data into tacit knowledge (Nonoka & Takeuchi, 1995).

Jennex (2015) viewed knowledge management to capture, store and later reuse this knowledge from prior experiences. These tactics of using proper knowledge at a proper time is a way to achieve solutions and goals to improve the organization as well as individual decision making (Jennex, 2015). Similarly, Holsapple and Joshi (2002) consider knowledge management to be an entity that needs to be expanded and thus apply the knowledge in a way to add value to company. Hence, this value will give a
sense of positivity to the work and thus result in accomplishing the objectives and goals of the organization (Budur et al., 2018; Torlak et al., 2019).

The business world has been changing from having natural resources to knowledge (Budur and Demir, 2019b). The change from simplicity to complex knowledge is a huge growth. Hegazy and Ghorab (2014) consider knowledge as one of the most crucial and highly valued assets in the field of work experience. According to Newell et al. (2004), the main goal and purpose of knowledge management is the ability to make the organization be aware of the current knowledge the employees hold and thus use that knowledge to shape it and then apply it to work tasks. Griffiths et al. (2012), claimed that the very important and scientific ability to understand knowledge and its importance in organizations is only the beginning stage as this stage as well as the early stage of understanding will later on develop to a much higher level of knowledge and knowledge sharing. According to Kayworth and Leidner (2003), Zaim (2006), Tsui et al. (2009), and Turner et al. (2012), there are four main elements and processes in the field of knowledge management. They are:

- Knowledge creation or knowledge acquisition: this part of the element is the replacement of the existing and current knowledge with the new knowledge as one gains from experience. It requires the organization or company to search for new knowledge be it inside or outside the organization (Martelo-Landroquez & Cepeda-Carrion, 2016).
- Knowledge Storage: this element of knowledge is the idea of storing knowledge and information within the organization. It is the organization’s duty to be able to store the knowledge and use it so that it can easily be accessed later (Ling & Nasurdin, 2010).
- Knowledge dissemination or knowledge transfer: according to Alavi et al., (2005) this type of process involves sharing as well as exchanging knowledge among the individuals of the organization.
- Knowledge application: this final process involves using the knowledge that had been previously stored so that it can be used for strategic direction, being able to solve problems, make decisions as well as improving the efficiency while reducing the costs which is a very important aspect of working conditions in organizations (Markus et al., 2002).

**Dynamic Capabilities**

Dynamic capabilities refer to ‘the firm’s ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments’ (Teece et al., 1997). Similarly, Eisenhardt and Martin defined dynamic capabilities as the internal update of an organization that focus on configurations to adapt environmental fluctuations (Eisenhardt & Martin, 2000). Furthermore, Teece (2008) noted in his updated studies that dynamic capability of a firm should be evaluated in two stages of defining new opportunities in the market. The firm, then, will be able to use those in prolific outcomes or investments.

Moreover, the main abilities of organizations to use dynamic capabilities are effective process management efforts to reach innovation, required vision for new models, ability to decide required investment, and effective transaction management (Krzkiewicz, 2013; Teece, 2008). Following this further, dynamic capabilities provide a firm competitive advantage in the long term as modifying operational routines, increasing decision making quality, and clarifying the vision of the company.
In this concept, scholars discuss the extent organizations combine their dynamic capabilities with their knowledge management processes (Zollo & Winter, 2002). Teece (2008) and Zollo & Winter (2002) put forward that in order to reach a competitive advantage in the market, organizations should follow and benefit from organizational learning capacity within the knowledge management processes to utilize dynamic capacities to adapt to the required market needs.

**Research Methodology**

The aim of this research was to evaluate the impact of organizational dynamics on the knowledge management practices of the firms in Kurdistan Region of Iraq. Secondly, we have evaluated the moderating effect of experience between organizational dynamics and knowledge management. To do this, we have collected data via conducting survey questionnaire to the employees of various firms in Kurdistan Region of Iraq.

To collect the necessary data for conducting our research and test our hypothesis, we utilized an online survey that consisted of 16 multiple choice questions among which 12 questions were about knowledge management dimension and 4 about organizational dynamics. We used online surveys rather than direct interviews with the employees of the companies due to the coronavirus pandemic that has emerged in the region since March, 2020 and across the globe since January, 2020. It took us five months to collect the data (February 1 - June 31, 2020). The data is organized into graphs and tables to help the reader understand the responses. In total, 207 responses were obtained for further analysis.

Hypothesis and the research framework are shown below:

**H1** Organizational dynamics significantly affects the knowledge management practices

**H2** Experience moderates the relation between organizational dynamics and knowledge management

**Figure 1**

*Research Framework*

The model has been tested using IBM AMOS. Initially, validity and reliability analyses were conducted. Secondly, we used structural equations modeling in order to test the hypotheses. The results have been discussed in the research findings section.
Research Findings

Reliability and Validity

We have tested the validity and reliability utilizing IBM SPSS. Initially, we have employed exploratory factor analysis to validate the items under the concerning latent variables. Initial results have shown that KMO level of the questionnaire was 0.914. The result reveals that sampling is adequate and sufficient.

Table 1 shows the mean, standard deviation, extraction values, factor loadings, Cronbach’s Alpha, extracted variance, and Kaiser-Meyer-Olkin test results. Extraction values are expected to be above 0.5 for each (Demir, 2019). Secondly, factor loadings of each item under the concerning latent variable is expected to be above 0.3 (Demir & Mukhlis, 2017). Based on the results, it can be concluded that the questionnaire is valid.

Table 1

<table>
<thead>
<tr>
<th>Exploratory factor analysis</th>
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<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>KM1</td>
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<tr>
<td>KM2</td>
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<tr>
<td>KM3</td>
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<td>KM12</td>
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<td>DYN4</td>
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</table>

After the validity analysis, the reliability analysis was done using Cronbach’s Alpha methodology. It was expected that the Cronbach’s Alpha for each dimension to exceed 0.7. The results revealed that KM dimension was 0.829 and organizational dynamics was 0.771. The results are sufficient to conclude the reliability of the questionnaire. In the next section, we have tested the aforementioned hypotheses.
Hypothesis testing

We have proposed structural equations modeling to test the hypotheses. Table 3 shows the results of the hypotheses. Given in the table, it was observed that organizational dynamics had significant impact on the knowledge management ($\beta=0.771$, $t=6.656$, $P<0.01$). Therefore, H1 has been accepted. It was observed that organizational dynamics had significant impact on the experience ($\beta=0.106$, $t=1.975$, $P<0.05$), and consequently experience on the knowledge management ($\beta=0.131$, $t=2.331$, $P<0.05$).

Table 2
Results of the hypotheses

<table>
<thead>
<tr>
<th>Hypothesized Path</th>
<th>Estimate</th>
<th>t value</th>
<th>Significance</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience &lt;--- Dynamics</td>
<td>0.106</td>
<td>1.975</td>
<td>P&lt;0.05</td>
<td>Supported</td>
</tr>
<tr>
<td>Knowledge Management &lt;--- Dynamics</td>
<td>0.771</td>
<td>6.656</td>
<td>P&lt;0.01</td>
<td>Supported</td>
</tr>
<tr>
<td>Knowledge Management &lt;--- Experience</td>
<td>0.131</td>
<td>2.331</td>
<td>P&lt;0.05</td>
<td>Supported</td>
</tr>
</tbody>
</table>

X2/df= 1.815
RMSEA= 0.051
CFI= 0.947
IFI= 0.948
GFI= 0.931
AGFI= 0.893
SMC knowledge management= 81%

The results show that experience significantly moderates the relation between organizational dynamics and knowledge management. Besides, direct impact of organizational dynamics on the knowledge management is greater than the moderator effect of experience. Thus, we can conclude that experience partially moderates the relationship between organizational dynamics and knowledge management.

Conclusion

This paper gave a general overview of what knowledge management is and how it is affected by the organizational dynamics. Knowledge management is the field or branch in management that deals with the employee knowledge that they gain from previous experiences. Although there are numerous affecting factors, the ones we focused in this paper were determined by the manager’s behaviors in the working fields.

Driven from the results, it was observed that organizational dynamics is one of the important and significant indicators of knowledge management. Secondly, the findings have revealed that experience is a significant moderator between organizational dynamics and knowledge management.

Consequently, it is recommended that defining the dynamic capabilities of the firm is a prerequisite. Secondly, managers are encouraged to determine their knowledge management processes to adapt to environmental changes with their strong dynamics in order to provide an internal and external effectiveness in the firm.
References


