Examining the relationship between knowledge creation and organizing with strategic thinking capacity: A Case study in Khozestan training and education organization

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Abstract
Using knowledge as the most important asset in the organization is so important and there is a discussion entitled knowledge management. Knowledge management with standard procedure is compatible to manage an organization. Basic and foundation of knowledge management in short-term lead to optimal exploitation of available information and resource in the organization. Also, knowledge management can be a new basic to improve business benefits and empower skills for the future. Khozestan training and education organization is working several activities with varied issues related to education and training using knowledge. Descriptive statistic and suitable diagrams have been provided to analyze data. In deductive analysis, suitable tests have been used to accept or reject the hypotheses. SPSS software was used to analyze data. Given the significant level less than 0.05, it could be concluded that there is significant correlation between knowledge creation and organizing.

Keywords: knowledge management, entrepreneurship, Khozestan training and education organization

Introduction
Klascenc in war book (Klascenc, 1987) distinguished strategy and tactic and tried to provide an accurate definition of this concept. He defined war art as an old strategic concept and tactic limited to war field, while using military force to achieve the goals of war related to outside of war field is considered as strategy. Klascenc evaluated the strategy concept and new horizons have been created in strategic thought which provide the context to form strategic studies as an independent scientific area. Klascenc distinguished strategy and tactic and believed war is following by politic, but using other tool (klascenc, 1987). He defined war as a device to achieve political goals and correlated goal and device. The correlation between goal and strategy in the strategy concept and strategic thought have not been limited to military force and the relationship between war and politic or general and politician and gone beyond it.

After evolution in strategy concept and strategic thought by Klascenc, strategy have been transferred from military force other civil dimensions including political and economic dimensions (Gari, 1999). In other words, after Klascence evolution, strategy is applied as strategic thought in politics and economic and instead of using human resource and military equipment to achieve the goals in the war, strategic thought have been moved outside the war field and civil dimensions to be used to improve and promote military goals and victory (Eftekhari, 25, 2005)

Klascence defined strategy as “application of conflicts to achieve the goals of war” similar to his ascendants. He believed war is resulted by war and from his perspective achieving to goals of war was done through political goals. This definition has been emphasized by von Moltke, he also emphasized on political goals of war. He defined strategy as practical matching of availed told by general to achieve the political goals (Hantington, 25, 2003), but he followed the concept of strategy
in form of art to handle and manage military affairs. In fact, evolution the concept of strategy until Klascence and Moltke was a conceptual evolution of war art to military leadership art.

According to this evolution, strategy was not limited to the war filed and went beyond the military dimensions. The characteristics of strategy resulted by the relationship between goal and device in one hand and evolution in goals and device in other hand have been emphasized by other countries as main actors of politic context when forming modern government, competition and conflict to achieve national benefits. As result of this evolution, strategy was observed as a concept to using all military, political and economic facilities to be wined in national extension.

**Tacit and explicit knowledge**

Poolani (1966) devided human knowledge in two categories including tacit and explicit knowledge. Tacit knowledge or coded knowledge expresses the knowledge in a systematic, formal and transferable form. In other hand, explicit knowledge has personal features and this specifies regulation and transmission. From Poolani perspective, tacit knowledge is placed in comprehensive knowledge of human mind and body. Explicit knowledge can be saved in archives, libraries and databases and is evaluated based on a sequential basis. Explicit knowledge is an extended knowledge and can be shaped easily. Explicit knowledge includes something that an organization or individual knows previously and can be communicated easily. For example, if a person goes outside in a rainy weather, he will be wet and this is an explicit knowledge.

Tacit knowledge is stored by individual and obtained by human experiences. This knowledge is based on elite. Often, this knowledge is transferred orally or by other informal processes to others (Entezari, 2006)

Explicit knowledge is defined and formulated easily and is shared through information technology. At early of information age, many organizations were satisfied to manage their data and information easily by automation and storing information through processing systems.

Tacit knowledge is learning and specified by below features:

- Subtopics of dialogue, insight and perception resulting by experiences are competence feeling by individual cooperation in the pragmatic groups. Explicit knowledge plays main role in the decisions related to mission of organization. The importance of tacit knowledge is in highlighting the role about strategic behaviors and decisions.

- Tacit knowledge is formed by mental models and belief of individuals. Tacit knowledge is rooted inside the individual and there is difficult to express it. A tacit knowledge is rooted in the culture of organization. In most of organizations, tacit knowledge is shared or exchanged rarely. When the holder of knowledge leaves the organization, this kind of knowledge is removed and for this reason benefit of tacit knowledge is not long. Tacit knowledge is rare, irreplaceable, inimitable and valuable (when is used to improve organizational goals). Tacit knowledge is taken by external process entitled evident knowledge and is possible to access it (Nonaka, 1994)

Theories of Knowledge Management

Theories of knowledge management can be evaluated in three categories (Karamipour and Davoudi, 2006)

1. A theory that takes knowledge as an interdisciplinary that has been in motion with information technology toward a target and is trained and learned through information networks by sharing human knowledge. According to this view, human factors, organizational learning, and knowledge creation as an explicit and tacit knowledge interpretation is placed on the next stage. The third step in this theory is content management settings through the classification and its application in information technology. Mark Koenig expressed this view in 2002.
2. David Snowden theory that is the changed theory is mostly about the distribution of information for decision-makers at a given time in decision-making. This theorist has mentioned that as anecdote and context and content management is placed in the center of knowledge management. According to this theory, organization understanding will discipline them through desirability of phenomena comparative systems that are restricted by the free exercise of human. Using insights and scientific management activities have limited appropriate fields while the insights and learning of theories have provided complex and final aspects of the creation of the new insights.

3. The third theory is the supply of knowledge management that McElroy in 1999 has raised it in the international coalition council and considered as discipline and cohesion of considered knowledge.

Knowledge management is a replacement for total quality management, and available engineering processes in firms such as Ernst & Young, Arthur Andersen and Allen and Hamilton. In addition, a number of professional organizations for better performance of activities and the level of risk management performance and change management have identified the links between knowledge management with other levels of expertise (For example, assembly production and quality community APQC and American science intelligence society ASIS). Increased attention to knowledge has created interest for organizations in knowledge management as the main center of competition and its synchronization with recent information technologies including the Internet and intranet (Martsnon, 2000, 45).

**Principles of knowledge management**

Knowledge Management Principles from the perspective of Davenport and Prusak (1998) include:

- Knowledge, emanating from individuals is replaced in the minds of people.
- Knowledge sharing requires trust.
- Technology enables new knowledge behaviors (ie behaviors, knowledge, behaviors, to creating, developing, distributing and rich commercializing knowledge).
- Knowledge sharing should be encouraged and rewarded.
- Management support and allocation of resources (knowledge management) is essential.
- Knowledge, nature has created and encouraged people Storage cause an unexpected way to spread knowledge.
- Knowledge management programs should be started with the pilot program (Davenport and Prusak, 1998, 54)

**Benefits of Knowledge Management**

Gary Dnham discussed major benefits of knowledge management as follows:

- Preventing the loss of knowledge: knowledge needs predict continuously the organization and prevent loss of knowledge in organization.
- Improving decision-making: in explaining this, it should be stated when one can takes the best decision that one may have enough knowledge about it. Better and earlier decisions can be taken in the case of access to knowledge.
- Flexibility and adaptability: personnel gain a better understanding of their work and propose innovative solutions.
- Competitive Advantage: enables organizations that customers better understand the perspectives and competitive market and identify competitive opportunities.
Knowledge Development: gives an intellectual property to existing knowledge in organization.

Increasing the product: knowledge will be on service of increase and development products.

Customer orientation: enables organization to turn their attention to customer needs according to knowledge.

The use of investment in human capital sector: the organization can best invest in hiring and training of staff by the knowledge system in documentation process organization etc. (Yang, 2001).

Benefits of using knowledge management initiatives, from a technical level to the strategic level, will affect the culture and the productivity of the entire organization. Improved competitive response, avoid the cost and loss of intellectual capital, strategic orientation and fulfill the needs of globalization, job and organizational effectiveness can be noted another advantage of knowledge management (Entezari 2006).

Improved competitive response: enabling organizations to respond rapidly to market changes and quick time to offer new products to market.

Avoiding the cost and loss of intellectual capital: capturing the tacit knowledge allows the organization to use this knowledge and to maintain process for future applications and remove re-training costs of staff and re-creating experts in the field of knowledge.

The realization of the need for globalization: geographically dispersed operations ask for special challenges in the field of cultural and knowledge management. Organizations that have the culture of effectiveness in the field of knowledge management can put an end to the spirit of "them and us" and maximize dispersed resources.

Job effectiveness: using a knowledge management infrastructure destroys traditional constraints, increases knowledge sharing among employees, and thus increases job effectiveness.

Strategic orientation: using the culture of knowledge sharing has enhanced the creativity and innovation and thus affects the strategic direction.

**Strategic thinking against non-strategic thinking**

Strategic thinking in the form of rules, "simple and profound" appears. These rules creating a peculiar mental model and will be basis for daily operational decisions to the overall directing of the organization. Strategic thinking creates motivation and commitment to the organization and its stakeholders. This motivation and commitment is created through the power of the "truth" is simple and at the same time yet attractive. What is causes that a strategy be effective is not the applied research methodology (many managers with strategies memorable highlights our strategies have not experienced any of the conventional methods) but insight into the business agents that can be create a strategy as strong and value creation. Insight into the market, deep basis understanding of the game rules and how to use them. A new idea, an innovative products or a new way of business only if have had of this cognitive themes can be the basis for customer value creation and competitive advantage for organization. How creates this Insight? The answer to this question in a phrase is learning the business environment. (Ghafarian, 2005).

Strategic thinking with synthesis of environmental and internal factors create an integrated picture of the business environment in mind and provides the background for the creation of innovative and creative responses to market needs and strategic planning with analytical methods, strategic goals convert into annual goals and short-term plans and formulates the steps needed to implement the creation strategy. Perhaps by this view it is better that strategic planning, be
considered a tool for implementing the vision (result of strategic thinking). "Strategic Planning" Thus, analytical and rational aspects of strategy with creative and artistic aspects tied it achieved a robust approach management. Oshanasy says this integration as a process of mental dialectic between divergent thinking and convergent knows. He believed that creativity must be implemented in the real world and also utilization of the power of synthesis should be used for power analysis and application of constant thinking and strategic planning of strategic planning is creative and innovative in practice.

**Statistical population, sample size, and sampling methods**

The statistical population of this research includes 321 field personnel staff of Department of Education Khuzestan Province. The researchers will turn to calculate the sample size in different ways. One of these techniques is using Morgan, in cases where we do not have the population variance. We used this table to estimate the sample size. This table shows the maximum number of samples; therefore, according to Morgan table for 321 statistical populations, 181 people were used as sample. In field research, saving time and cost are used as one of the sampling methods. The sampling method used in this research was cluster sampling. In order to collect data we use two types of questionnaires in addition to books, publications, and documents available in the library of Internet sites and also view etc. (field). Knowledge management questionnaire (Sharon Lawson) - knowledge assessment questionnaire (according to Lidka model) - the scale used in the questionnaire is Likert scale of 5 choice.

**Cronbach’s alpha for assessing the reliability of the questionnaire**

The method for calculating the internal consistency of measurement tools are used such as questionnaires or tests that measure the different features. In these tools, the answer to every question can adopt different numerical values. Variance for scores of each subgroup questionnaire and total variance must first be calculated (or under test) for Cronbach's alpha coefficient. Then use the following formula to calculate the coefficient value of alpha.

\[
r_a = \frac{j}{j+1} \left(1 - \frac{\sum S_j^2}{S^2} \right)
\]

Where:

- \(J\) = Number of the subsets of questions of questionnaire or test.
- \(S_j^2\) = Variance of j subtest
- \(S^2\) = Variance of the whole test

The zero of this coefficient indicates a lack of reliability of +1 indicates). This study will examine the reliability of the questionnaire:

**Evaluation of reliability of the questionnaire of knowledge management**

<table>
<thead>
<tr>
<th>Table 1: Statistics for measuring the reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability of the questionnaire statistics</td>
</tr>
<tr>
<td>Cronbach's alpha test</td>
</tr>
</tbody>
</table>

Since the amount of Cronbach's alpha coefficient is obtained 0.743 and is greater than 0.7 and is in quite convenient the level. Thus, dependability (reliability) of this questionnaire is completely approved and accepted.

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Evaluation of reliability of the questionnaire of strategic thinking

Table 2: Reliability statistics

<table>
<thead>
<tr>
<th>Reliability of the questionnaire statistics</th>
<th>The number of test questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cronbach's alpha statistical test</td>
<td>0.712</td>
</tr>
<tr>
<td></td>
<td>28</td>
</tr>
</tbody>
</table>

Since the amount of Cronbach's alpha coefficient has been obtained 0.743 and is greater than 0.7 and is in quite convenient level. Thus, dependability (reliability) of this questionnaire is completely approved and accepted.

Descriptive statistics

Table 3: Descriptive statistics for gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>169</td>
<td>93.4</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>6.6</td>
</tr>
<tr>
<td>Total</td>
<td>181</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to the chart above, men with 93.4 percent has the highest volume of the sample group.

Table 4: Descriptive statistics for education

<table>
<thead>
<tr>
<th>Education</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma and lower</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>Associate degree</td>
<td>59</td>
<td>32.6</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>95</td>
<td>52.5</td>
</tr>
<tr>
<td>Masters</td>
<td>16</td>
<td>8.8</td>
</tr>
<tr>
<td>PhD</td>
<td>9</td>
<td>5.0</td>
</tr>
<tr>
<td>Total</td>
<td>181</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to the above diagram, individuals with undergraduate education by 52.5 percent have the highest volume of the sample group.

Table 5: Descriptive statistics for age

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 30</td>
<td>20</td>
<td>11.0</td>
</tr>
<tr>
<td>30-40</td>
<td>40</td>
<td>22.1</td>
</tr>
<tr>
<td>40-50</td>
<td>73</td>
<td>40.3</td>
</tr>
<tr>
<td>Above 50</td>
<td>48</td>
<td>26.5</td>
</tr>
<tr>
<td>Total</td>
<td>181</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to the above table, 40.3 % is related to the age of 40-50.

Table 6: Descriptive statistics for work experiences

<table>
<thead>
<tr>
<th>Work experience</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 10</td>
<td>3</td>
<td>1.7</td>
</tr>
<tr>
<td>10-20</td>
<td>59</td>
<td>32.6</td>
</tr>
<tr>
<td>20-30</td>
<td>108</td>
<td>59.7</td>
</tr>
<tr>
<td>Over 30</td>
<td>11</td>
<td>6.1</td>
</tr>
<tr>
<td>Total</td>
<td>181</td>
<td>100.0</td>
</tr>
</tbody>
</table>
According to the above table, 20 -30 years, with 59.7% of people with work experience, make up the largest volume of sample group.

**Table 7: Descriptive statistics of variable**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Minimum number</th>
<th>Maximum number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge creation</td>
<td>181</td>
<td>3.41</td>
<td>.546</td>
<td>1.75</td>
<td>4.75</td>
</tr>
<tr>
<td>Knowledge Organizing</td>
<td>181</td>
<td>3.28</td>
<td>.768</td>
<td>1.50</td>
<td>5.00</td>
</tr>
</tbody>
</table>

**Figure 1: Histogram of knowledge creation variable**

**Figure 2: Histogram of knowledge organizing**
**Inferential statistics**

In this section and by using appropriate statistical tests, testing the hypothesis of this study will be discussed.

**Table 8: Results of Kolmogorov-Smirnov test**

<table>
<thead>
<tr>
<th>Variable name</th>
<th>Number</th>
<th>Test statistic</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge creation</td>
<td>181</td>
<td>1.322</td>
<td>.061</td>
</tr>
<tr>
<td>Knowledge organizing</td>
<td>181</td>
<td>1.726</td>
<td>.053</td>
</tr>
</tbody>
</table>

Kolmogorov-Smirnov test hypotheses of the study are defined as follows:

- \( H_0 \): Observations follow a normal distribution
- \( H_1 \): Observations does not follow a normal distribution

So, given that the test statistics of the variables is between -1.96 to 1.96, assumption of observations normality (null hypothesis) is not rejected. As a result, parametric tests are used to verify assumptions.

**Main hypothesis:** there is a significant relationship between process of knowledge-creation and by organizing strategic thinking capacity in the Department of Education of Khuzestan province.

\[
\begin{align*}
H_0 &: \rho = 0 \\
H_1 &: \rho \neq 0
\end{align*}
\]

**The relationship and correlation between variables**

**Hypothesis 1:** there is a significant relationship between the knowledge creation and capacity for strategic thinking in the Department of Education of Khuzestan province.

To check whether correlation between two variables is statistically significant or not, we test the following hypothesis.

\[
\begin{align*}
H_0 &: \rho = 0 \\
H_1 &: \rho \neq 0
\end{align*}
\]

\( \rho \) represents the value of Pearson correlation coefficient between these two variables in the population.

**Table 9: The correlation between variables**

<table>
<thead>
<tr>
<th>Strategic Thinking</th>
<th>The correlation coefficient</th>
<th>Knowledge creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>.074</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.001</td>
<td>Level of significance</td>
<td></td>
</tr>
<tr>
<td>181</td>
<td>Number</td>
<td></td>
</tr>
</tbody>
</table>

By comparing the significance level obtained with the error coefficient of 0.05 (less than 0.05), we can conclude that there is a significant correlation between the knowledge absorption and strategic thinking capacity. The value of the correlation coefficient in study of the relationship is 0.074 regarding that positive number of correlation coefficient indicates a significant positive correlation (same directions).

**Hypothesis 2:** there is a significant relationship between knowledge application and strategic thinking capacity in the Department of Education in Khuzestan province. To check whether correlation between two variables is statistically significant or not, we test the following hypothesis.

\[
\begin{align*}
H_0 &: \rho = 0 \\
H_1 &: \rho \neq 0
\end{align*}
\]

\( \rho \) represents the value of Pearson correlation coefficient between these two variables in the population.
By comparing the significance level obtained with the error coefficient of 0.05 (less than 0.05), we can conclude that there is a significant correlation between the knowledge absorption and strategic thinking capacity. The value of the correlation coefficient in study of the relationship is 0.294 regarding that positive number of correlation coefficient indicates a significant positive correlation (same directions).

**Conclusion**

The findings related to demographic characteristics showed that for gender variable, the highest percentage with 93.4 percent is related to male gender. For variable education, the highest percentage with 52.5 percent is related to undergraduate education. For the age, the highest prevalence is related to the age of 40 to 50 years and for variable work experience, the greatest percent of frequency related to 20 to 30 years of work experience is 59.7.

By comparing the significance level obtained by the error coefficient of 0.05 (less than 0.05), we can conclude that there is a significant correlation between the knowledge absorbing and strategic thinking capacity. The value of the correlation coefficient in study of the relationship is 0.294 regarding that positive number of correlation coefficient indicates a significant positive correlation (same directions). By comparing the significance level obtained by the error coefficient of 0.05 (less than 0.05), we can conclude that there is a significant correlation between the knowledge application and strategic thinking capacity. The value of the correlation coefficient in study of the relationship is 0.322 regarding that positive number of correlation coefficient indicates a significant positive correlation (same directions).

**Reference**


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