

Research Article

Investigate the relationship between the process of application and absorption of knowledge with strategic thinking capacity Case Study: Department of Education of Khuzestan

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ABSTRACT

Dizzying speed of changes in today's world means that conventional methods of management cannot fit with change. When changes were trivial, we could use the experiences but when making decisions have strategic aspect and the results are irreversible and major, you cannot use of making decisions based on the judgment of intuition and experience-based management philosophies. Therefore, the strategic management process is an attempt to provide a second copy of what happens in the very clever and elite human brain, this means that someone who has a direct understanding of affairs and combines knowledge information with scientific analysis determines changes and provides survival of the organization in the field of competition and conflicts. Department of Education of Khuzestan, by using the knowledge, expertise, and experience of a wide range of experts from various fields, engaged to perform multiple activities with various topics related to education in the country. In descriptive data analysis, descriptive statistics and graphs are provided appropriately and in the inferential analysis, the appropriate tests have been investigated in order to confirm or reject the hypothesis. It should be noted that the analysis was performed by using SPSS software. By comparing the significance level obtained by the error coefficient of 0.05 (less than 0.05), we can conclude there is a significant correlation between the application and absorption of knowledge.

Keywords: application and absorption of knowledge, capacity for strategic thinking, the Department of Education of Khuzestan, SPSS,

1. INTRODUCTION

Nowadays knowledge is considered as a valuable and strategic source and an asset. Along with the development of the idea of knowledge as a strategic resource in the 21st century, knowledge has been seriously considered as an important competitive advantage in leading organizations. Hence, many scientists of management and organizations have begun to attempt to systematize use of knowledge in organizations through the creation of a new chapter in management entitled "Knowledge Management".

The importance of knowledge management systems in sharing and creating new knowledge has caused large companies and organizations to carry out extensive investments in this field. The sharing of knowledge, not only in scientific and technical fields, but also in the field of

human resources is also very useful. Knowledge in these organizations as a source of power and knowledge management in order to link those who have questions and those who answer the questions have been taken into consideration. Knowledge management provides creative and innovative substrates for these organizations (Martson, 2000)

Strategic thinking enables the manager to find out what is effective and what is not effective in achieving the desired objectives and why and how effective factors create value for the customer. This insight into the factors influencing in creating value provides judgment. Without this recognition, the consumption of resources (material and immaterial) of organization to achieve success will be ungainly. Ken Ichi Omi in his authoritative book entitled "Thinking of a

strategist," states that "If you do not recognize the fundamental issues, no matter how much physical and mind stress you put on your employees, the end result will not be nothing but confusion and failure".

The importance of understanding the concept of capacity for strategic thinking is that provides us with large-scale, integrated, and meaningful understanding of the strengths and weaknesses of the organization. There were organizations in the past where with a high capacity well founded strategic thinking and change in building. With changes in the management of these organizations, the new management without regard to the need for two capacities just mentioned, gets involve in operational management organization and over time has developed it in the direction of the past. Now these organizations have been involved in many problems despite of high capacity due to drastic changes in environmental conditions and weaknesses in the regulation of relations with these conditions.

One of the biggest challenges for organizations understands when to change and adapt to it. The necessity to achieve strategic orientations of the organization is that people in organization can continuously operate its strategy objectives faster and easier. This means timely and effective implementation of decisions. In other words, each organization must always develop the ability to accept change and the talent to create fundamental changes inside.

2. Individual knowledge and organizational knowledge

Individual knowledge and organizational knowledge are separated. A number of researchers, such as "Simon" (1978) and "Vick" (1976) believe that the organization did not have learning capabilities and in organizations, there are people who learn more. However, some researchers, such as "Starbuck" (1983), "Nelson" and "Winter" (1982) believe that organizations through documentation and routines, acquire their knowledge that are in specific organizational histories. The way that knowledge of documentation and routines are integrated, coordinated, and new knowledge is

shaped by organizational history and culture. In this perspective, organization is considered as an element faced with the problem and solve. The knowledge that organization creates to solve upcoming problems, is organizational knowledge and the knowledge that is created by people individually, is personal knowledge. Certainly knowledge created by the people as a whole in the form of an organization is not something more than the sum knowledge of each individual (Kheir Andish and Afsharnezhad, 2004).

The learning in organization is affected a lot by the complexity of tasks and organizational environment. As mentioned before, individual knowledge and organizational knowledge are distinct. The size of each individual interacts with others is dependent on organizational culture. This view is accepted, therefore, that in the current environment, individuals within the organization requires quick making decisions to solve customer problems. Instead of using rules and regulations as directed from the hierarchy to solve problems, employees are forced to provide efficient solutions to solve business problems (Entezari 2006).

3. The role and importance of knowledge management

Organizations have numerous resources and assets to achieve their objectives. Some of these valuable resources and assets are unique and have a central role only for competitive advantage. Knowledge is one of them, so that knowledge is considered the final alternative to production, wealth and money capital (Taghlar, 1998).

Peter Drucker in 1993 expressed the opinion that in today's economy of the world source knowledge is not like and within other sources (such as labor, capital and land), but is the only source in the present age (Nonaka, 1996). In fact, knowledge is the only resource that its value does not decrease due to use, but it adds to the value (Glaser, 1998). Investment of an organization is more profitable on knowledge than the material (Davenport, 1998). We can understand that the only sustainable competitive advantage of organizations, firstly, is what they

know, and secondly, how fast they will utilize their expertise (Cohen, 1998).

4. 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

-Access, encryption, and valuable contribution in the knowledge and finding the right information for people to apply them at the right time and appropriately.

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).

5. Benefits of Knowledge Management

Gary Dnham discussed major benefits of knowledge management as follows:

1. Prevent the loss of knowledge: knowledge needs predict continuously the organization and prevent loss of knowledge in organization.
2. Improve 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.
3. Flexibility and adaptability: personnel gain a better understanding of their work and propose innovative solutions.
4. Competitive Advantage: enables organizations that customers better understand the perspectives and competitive market and identify competitive opportunities.
5. Knowledge Development: gives an intellectual property to existing knowledge in organization.
6. Increase the product: knowledge will be on service of increase and development products.
7. Customer orientation: enables organization to turn their attention to customer needs according to knowledge.
8. 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.

- Avoid 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.

6. The proposed patterns in strategic thinking

Strategic thinking is one of the strategic descriptive schools and in this respect provides how to approach rather than the procedures and prescriptive methodologies, describing patterns. Several models have been proposed for strategic thinking. Each of these patterns has addressed dimensions of the concepts and the formation of strategic thinking and has considered this approach from a certain

perspective, although their common features are significant. Williamson's pattern emphasizes on the empowerment of organization through the development of capabilities, knowledge of the market, Gary Hamel recommends creating new enthusiasm, and passion in the organization for creating new strategic perspectives, Lidka knows the focus of energy of organization on the targets vital. In this review, we introduced three models of valid strategic thinking patterns (Ghafarian and Kyani, 2007, 73).

7. 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 use 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 have been 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.

8. 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.

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

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:

8.1 Evaluation of reliability of the questionnaire of knowledge management:

Table 1: Statistics reliability

Reliability of the questionnaire statistics	
Cronbach's alpha test	The number of test questions
0.743	24

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.

8.2 Evaluation of reliability of the questionnaire strategic thinking

Table 2: reliability statistics

Reliability of the questionnaire statistics	
Cronbach's alpha statistical test	The number of test questions
0.712	28

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.

9. Descriptive statistics

Table 3: Gender of sample group

gender	Frequency	percent
male	169	93.4
female	12	6.6
total	181	100.0

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

Table 4: Education of sample group

Education	Frequency	Percent
Diploma and lower	2	1.1
Associate degree	59	32.6
Undergraduate	95	52.5
Masters	16	8.8
PhD	9	5.0
Total	181	100.0

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

Table 5: Working age of sample group

Age	Frequency	Percent
Below 30	20	11.0
30-40	40	22.1
40-50	73	40.3
Above 50	48	26.5
Total	181	100.0

According to the above diagram with the age of 40 to 50 consist 40.3 percent of the largest volume of sample group.

Table 6: Work experience of sample group

Work experience	Frequency	Percent
Below 10	3	1.7
10-20	59	32.6
20-30	108	59.7
Over 30	11	6.1
Total	181	100.0

According to the above table and diagram 20 to 30 years, with 59.7% of people with work experience, make up the largest volume of sample group.

Table 7: Descriptive statistics of variable

	Number	mean	Standard deviation	Minimum number	Maximum number
Knowledge absorption	181	3.35	.622	1.50	5.00
Knowledge application	181	3.39	.536	2.00	4.75

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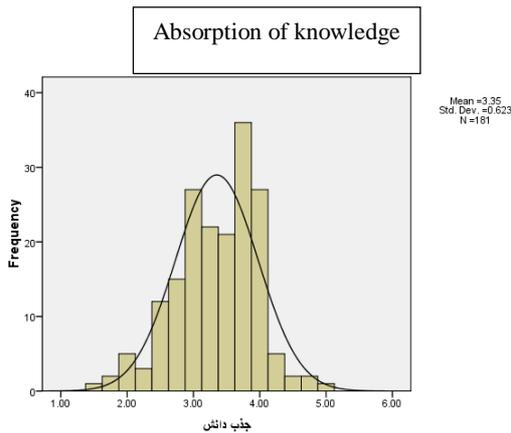


Figure 1: Histogram of knowledge absorption variable

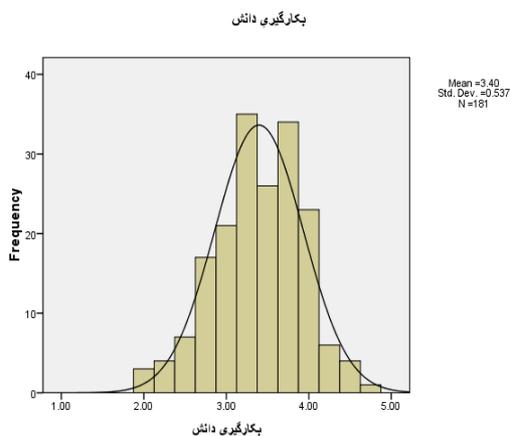


Figure 2: Histogram of knowledge application

10. Inferential statistics

In this section and by using appropriate statistical tests, test the hypothesis of this study will be discussed. Then we will report the results to the assumptions of this study.

Analytical method (Kolmogorov-Smirnov test)

Table 8: Kolmogorov-Smirnov test results

Variable name	Number	Test statistic	Level of significance
Knowledge absorption	181	1.907	0.061
Capacity for strategic thinking	181	.723	.673
Knowledge application	181	1.623	0.052

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

$$\begin{cases} H_0: \text{Observations follow a normal distribution} \\ H_1: \text{Observations does not follow a normal distribution} \end{cases}$$

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.

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

$$\begin{cases} H_0: \rho = 0 \\ H_1: \rho \neq 0 \end{cases}$$

10.1 The relationship and correlation between variables

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

$$\begin{cases} H_0: \rho = 0 \\ H_1: \rho \neq 0 \end{cases}$$

ρ represents the value of Pearson correlation coefficient between these two variables in the population.

Table 9: Study of the correlation between variables

Strategic Thinking		
.071	The correlation coefficient	Knowledge absorption
0.001	Level of significance	
181	Number	

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 0.071 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.

$$\begin{cases} H_0: \rho = 0 \\ H_1: \rho \neq 0 \end{cases}$$

ρ represents the value of Pearson correlation coefficient between these two variables in the population.

Table 10: Study of the correlation between variables

		Strategic thinking
Knowledge application	Coefficient correlation	.322**
	Level of significance	.001
	Number	181

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 0.071 regarding that positive number of correlation coefficient indicates a significant positive correlation (same directions).

11. 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 0.071 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).

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