Relationship between the use of Knowledge management and employee performance in an organization (case study of General Governor Office of Zanjan)

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Abstract: The meaning of knowledge management is creating process, collection, organization, continuously and inspection and purgation utilization. Knowledge management in organizing is strategies and processing that they are able to covering knowledge demands for customers and staff. In this article relation between knowledge management and staff working is defined. At first few questions paper and asked to check it then from various ways research in this statistical society. After collection used for processing, checking and confirmation, kron back coefficient modulus has been used. This research used regression multi variables relation between independent variables and dependent variables and finds meaningful relation between knowledge management utility among organization staff.

Key words: *Knowledge; Management; Employee performance*

1. Introduction

In the present age changes are accelerating and unpredictable. Management status in our society represents the imbalance between the growing complexity of organizations and the inability of these organizations to anticipate and deal with these changes and their complexity. In order to deal with environmental threats and potential opportunities organizations have to identify their internal capacity, reinforce their strengths and repair their weaknesses. Management problems have become so complex that it is not easy to diagnose the problem and human nature of organizations and complex behaviors of employees, increases this complexity. In such circumstances, those organizations are successful that along with gaining a broad knowledge of environmental factors for their survival expand to improve their mobility and enhance the performance of organization (Rahimi, Najafi, 1386).

One way to investigate on this topic is the issue of Knowledge management. Knowledge Management has been presented from the late 1970s. In not too far past, greater access to material resources was considered as a strength and competitive advantage of an organization or a human society.

But now the situation has changed entirely and now a major competitive advantage for organizations is their ability to manage their knowledge (Khansari, 1384).

Knowledge management can be applied through the development of human resources as a competitive advantage (Mehdi Sheikhlu, 1391).

Knowledge management seeks to capture the knowledge, wisdom and the value added experience of staff besides implementing, maintaining and retrieving the knowledge as the assets of organization. According to Peter Drucker, the secret of successful organizations in the 21st century is the Knowledge management. Therefore, the management of organization must rely on the superior knowledge in order to have more rational decisions on important issues and improve the knowledge - based functions. So the concept of Knowledge management is more important than the knowledge itself and in the organizations this management aims at clarifying the way of changing individual and organizational information into group and individual knowledge and skills (Ormazdi, 1386).

Knowledge management is not a new concept, in fact it is more the result of old civilization. Till recent innovations, the old organized businesses have been looking for a competitive advantage because it allows them to serve customers as efficiently as possible, increase the profits, and have a set of loyal customers and can stay more in the competitive scene (Bargon, 2003).

2. Concepts of data, information, knowledge and wisdom

At first for a better understanding of Knowledge management concept, we should study the concepts related to data, information, knowledge and the differences between them. Most of the time, data and information are used instead of knowledge, though they have different meanings and understanding these differences is crucial for a knowledge - based work.

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2.1. Data

Data are facts, raw numbers and instructions that everybody can understand and interpret them potentially, and also they can be processed by computer (Mokhtari, 1383).

Data is the reality of a situation or an item of a particular field without relation to the other things. In fact, the data are raw facts and realities and are stored and managed in a database (Shahbazi, 1386).

Data are available in the form of numbers, letters, images, sounds, etc. and will not present the intended meaning alone (Sadeghi and Salehi Abyaneh, 1387).

2.2. Information

The data which is easy to understand and interpret and are significant in the relevant field (Khonsari, 1384).

Adding background and interpretation to data and their relationship to each other create information. Information is the combined data along with its background and interpretation.

In fact the information contains the summarized data that grouping, storing, cleaning, organizing and analyzing help to make it clear. We review the information to make decisions. Usually the information is in the forms of numbers, words, phrases and statements and gives the summery of numbers and statements. Therefore, if data have been interpreted and evaluated, they change into information (Shahbazi, 1386).

2.3. Knowledge

Purposeful collection of information that is useful in nature and is seen as a crucial and effective factor (Mokhtari, 1383).

Adding memory and understanding to information, creates normally developed information. The more summarized basic information leads into knowledge. In this case knowledge can be defined like insights derived from data and information that can be multiplexed and effective in different conditions through different methods. Knowledge is to minimize reading and collecting information rather than increasing the access to information, effective knowledge helps to remove unwanted information and data (Shahbazi, 1386). Thus, information becomes knowledge when it is interpreted by individuals, combined with their prior knowledge and beliefs and became significant (Sadeghi and Salehi Abyaneh, 1387). Knowledge is an understanding which is derived from experience, reasoning, intuition and learning.

When people share their knowledge, their knowledge will increase and new knowledge is the outcome of combining individuals' knowledge (Shahbazi, 1386). By concept the knowledge is a concealed framework and pattern that considers the reason of the phenomena and creates new information through combining various information.

Table 1: Pattern firm for latent phenomena

Knowledge:
- It is beyond the information.
- It is social
- It is action stimulant.
- It is both stipulated and implicit.
- It is the key asset of organization.
- It is based on the individuals' opinion.
- It is organized in the mind of a conscious being.
- It is an active perception.
- It is a harmonious element in learning.

2.4. Wisdom

Wisdom is the understanding of knowledge. "Wisdom" is to understand the nature of the knowledge patterns, those who have the wisdom can create new knowledge experience and field through modifying the existing structure. They have critical way of thinking and creativity and genius in this class are in a very high level. These people can establish a relationship between different experiences, and get a more comprehensive perspective and in addition to the practical steps which they do in line with their knowledge, provide various ways with their advantages and disadvantages in light of creative thinking. The difference between a scientist and wise judgment is that a scientist may judge based on limited experience but a wise person judges about different phenomena based on establishing the relationship between various experiences and applying creativity. Accordingly the wisdom enjoys the universal acceptance and is very close to the truth and in compare with knowledge and information, changing wisdom needs more time so time and space limitations do not apply in the case of wisdom and this is the only common feature between wisdom and data (Hasanzadeh, 1386).

3. Stages of knowledge management

Over all things Knowledge management is aimed at establishing a knowledge connection between employees in one organization, teaching the methods of organizational knowledge, providing the areas for changing individual knowledge to collective knowledge and vice versa in order to reinforce the innovation and creativity. This function of Knowledge Management has also been emphasized by Abel Vaksbro (2001).

Manasko (2000) has identified four steps for Knowledge management:

1) Knowledge detection.
2) Creation of trends towards knowledge.
3) Improving culture for knowledge sharing.
4) Infrastructure for distributing knowledge.

In order to manage, knowledge must first be detected in various forms; that is to change from mental state (implicit) to the objective (explicit). Then the tendency towards knowledge and its usage

must be motivated among the employees to improve the culture. Bringing knowledge makes learning to be considered as one of the main tasks of the organization and its employees. After understanding the importance of knowledge and its competitive advantages for all members of the organization at different levels, the infrastructure of Knowledge management must transfer in the sharing fields and get ready to apply. Stages provided by Manasko (2000) seem to be too general. Therefore we cannot easily achieve practical stages by using them. Nasiri (1996) has identified the nine stages for Knowledge management that besides including the four stages of Manasko, seems more practical. These stages are:

1. Concentration: Identifying the basic functions of an organization, including strengths, weaknesses, opportunities and threats.

2. Finding: Identifying items that are major sources of organizational knowledge. In an organization there are some parts which are considered as the major parts of organizational knowledge. An organization has some parts that produce and consume the major knowledge of the organization. These parts must be identified for getting more attention. The main sources of knowledge may be individuals or group of individuals.

3. Extraction: Evoking knowledge, experience and technical knowledge of experienced professionals or a group of them is necessary. This can be done in different ways. Holding information meeting, retelling stories of success and as such is among those ways.

4. Optimization: The knowledge and the useful experiences achieved from professional people must be optimized after extraction. Optimization takes place by providing the feature and requirements for applying knowledge.

5. Organization: Take the advantage of existing knowledge of organization is provided with detailed analysis, appropriate organization and finding the relationship between its components. Of course the organization and analysis of knowledge requires special skills that people must acquire them.

6. Sharing: The knowledge which is selected, optimized and organized, if is not shared, cannot be used by those organizations. Providing appropriate grounds for sharing the people's intellectual property is one of the stages for knowledge production.

7. Implementation: Training people to use the knowledge and experience of others in terms of Knowledge Management System allows organizations to use that knowledge for achieving organizational goals and exchange their useful experiences with others.

8. Evaluation: Evaluating the existing knowledge based on the using patterns and effectiveness is one of the steps that should be considered by managers to be able to identify obstacles and shortcomings, and take actions for resolving them.

9. Adaption: After the implementation of the previous stages periodically and get help of evaluation results it is the time of training people to learn recording their own knowledge. This will improve the results of applying the intellectual property. The processes can be adjusted according to that. This is a continual cycle from the first to the ninth stage in an organization.

Each of those steps has its specific features and its implementation requires specific expertise. For example, in the "organization" stage, Library and Information Science professionals can play a major role; while in the "optimization" stage, Management professionals play a vital role: in "sharing" stage, to set up an appropriate computer system, saving and retrieval of knowledge computer scientists should help.

Sharing is the heart of Knowledge management. In order to manage organizational knowledge, at first each organization must provide the necessary technological, processing and humane infrastructures for sharing the knowledge.

- Technological infrastructures include the use of information and communication technologies to create websites, knowledge network, ability bases for employees and etc;

- Processing infrastructures include developing needed strategies to information and knowledge, establishing a special unit to track relevant issues, defining the role of information/ knowledge expert, allocating the necessary funds, and so on;

- And humane infrastructure is to thoughtfully prepare people for sharing and absorbing knowledge from internal and external organizational sources.

A part of humane infrastructure is related to improving culture that is possible through reward, glorification, and knowledge sharing according to the standards of individuals' job promotion in the organization and alike those are available (Ormazdi, 1386).

4. Factors of knowledge management

Studying Knowledge Management aspects in different periods shows that on this issue, there is not a single approach. There are some views about the technical and technological factors, some other views focus on humane and cultural factors, and the last group considers the combination of these factors for the success of Knowledge management. Alazmi and Zairi are among the scholars who have done many researches in this area. They have identified various key factors about the success of Knowledge management from the perspective of many experts.

5. Data collection method

Considering the type of research and also the extent of the statistical population and consequently the complexity of the statistical sample, in order to access the ideas of respondents in this study the best method of data collection has been intended questionnaire. In order to achieve the desired results and apply appropriate research methods the following methods were used:

- The study of library:

In order to review the research literature books, articles, Latin and Persian sources from internet searching, data banks and information sources and libraries have been used.

- Field research:

Table 2: Factors of knowledge management from perspective of different experts

Author	Factors of Knowledge Management
Wiig (1996)	The process related to knowledge: Establish - Organize - Transfer - Conversion - Use and Maintenance of knowledge
Davenport (1998)	Organizational and technical infrastructures - Knowledge structure - Establishment of culture and friendly atmosphere in organization - Clear goals and Common language - Multiple Channels for knowledge transfer - Excellent management support - Removing motivating obstacles
Davenport & Prusak (1998)	Technology - Knowledge Management - Knowledge Distribution - Electronic Repositories of Knowledge - Education, Culture & Leadership - Trust
Morey (1998)	Knowledge Availability - Being right - Being effective - Usability
Trussler (1998)	Existence of adequate infrastructure in the organization - Management commitment - Motivating for sharing knowledge - Finding people and the right information - Culture - Technology - Conversion and transfer of knowledge - Education and learning
Author	Factors of Knowledge Management
Finneran (1999)	Creating the right culture- Distribution of information and knowledge - knowledge creation
Liebowitz (1999)	The strategy of Knowledge management based on excellent management - Creating the culture of knowledge management support - Motivating employees to distribute knowledge (Technology) - Tools and Knowledge management system - (Knowledge repositories) - Organizational memory of Knowledge management factors
Manasco (1999)	Knowledge communities - Creating the proper conditions - Monitoring the knowledge content - Structural and technological support - Improving the process of creating and distributing the knowledge
Bassi (2000)	Learning - Distribution - Implementing and using knowledge
Choi (2000)	Education - Engaging employees in the process of Knowledge management - Teamwork - Empowering staff - Excellent management support - Organizational coercion - Bench marking - Knowledge structure
Skyrme (2000)	Excellent management support - Awareness of knowledge processes - Knowledge leadership - Systematic processes of knowledge - Knowledge infrastructure development - Creating the culture of innovation, learning and knowledge - Technology infrastructure
& Skyrme	Having a binding perspective - Strong relationship with business processes - Knowledge leadership - Creation
Dmidon (2000)	Knowledge and the culture of distributing it - Smart learning - Technological infrastructure - Systematic processes
Heising (2001)	The existence of appropriate culture - Excellent management support - Technological support - Cohesion of Knowledge management processes - Combining Knowledge management tasks with everyday tasks
Steele (2001)	Knowledge structure - Knowledge organization - Open communications - Distributing information - Knowledge update - Management support

One of the most important stages of researching is data collection. The required information for doing research can be collected through different ways. In order to collect data and measure the variables of the study, a questionnaire was used. Measurement indicators in the study, before being used in the questionnaire have been exposed to judgments of several experts in universities and the offices related to the research topic.

6- Validity and reliability

Validity: It is aimed at evaluating whether the measurement instrument is able to measure the desired features and characteristics or not. Validity is a term which is referred to the purpose of the test which should be achieved. The purpose of validity testing is to discover the problems and possible ambiguities in wording of questions and the structure of the questionnaire etc. First, in order to achieve face validity and the accuracy of the questions, the questionnaire has been distributed among the number of experts and professionals and after being sure of the results, the questionnaire was distributed in the statistical population (state or private organizations).

Reliability: It shows the stability and harmony in the measuring instrument and helps to have a correct and appropriate assessment of measuring

instruments. It means the tests that have been used for doing the research, must have the same reliable results every time they are used. There are several techniques to determine and calculate the reliability coefficient:

Repeating the test (Test - retest), Parallel forms (Parallel and peer), split - half (dividing the questionnaire into two halves and calculating the correlation between the two sets of questionnaire), Koder Richardson noted that the most famous of them is the method of Cochran.

In this study the reliability is measured by Cochran method. Most of the times the coefficient scope of Cochran is ranged from zero (0) means no

stability to a positive one (+1), which means complete reliability and if this number is closer to the positive one the reliability of the questionnaire will be higher. The reliability of the questionnaire was calculated by Cochran and as it is clear in the following Table 4 it equals to .0886 which indicates the high reliability of the questionnaire (the coefficients which are above 70% are appropriate and acceptable).

Table 3: Cochran values

Reliability Statistics	
Number of Items	Cochran
61	0.886

Table 4: Cronbach's Alpha values in different variables

Reliability (Cochran)	Variable
.709	Knowledge Achievement
.802	Knowledge Recognition
.754	Knowledge Sharing
.769	Knowledge Creation
.734	Knowledge Application
.823	Knowledge Saving and Documentation

7. Methods of statistical data analysis

In order to analyze data in this study, descriptive studies including frequency, frequency percentage, mean, standard deviation, charting and tables were used to describe the characteristics of the participants in this study. For the coefficient of reliability and validity the internal consistency of the questionnaire (Cocharan) has been used and for testing the research hypothesis to determine the effect of each variable the Regression and Correlation was applied with the use of SPSS software 18.

8. Research findings

Research findings are shown in Table 5 and Table 6.

9. Discussion and conclusion

This study was designed to investigate the relationship between Knowledge Management and the staff at the General Governor Office in Zanjan in 1392, during the preliminary stages of research and theoretical literature review, the research hypotheses were developed and then the data needed to test these hypotheses has been collected through questionnaires and cluster sampling technique from a 65-participants sample of General Governor Office of Zanjan, then this data was studied using descriptive statistical methods such as frequency tables, frequency percentage, distribution, distribution percentage and also analytical techniques such as regression and correlation, finally the following results were obtained:

The descriptive results of the study are as follows:

According to the frequency distribution of participants' last degree; 1.5 percent of participants have Diploma, 2.18 percent have Associate Degree, 44.6 percent have Bachelor, and 35.4 have Master or upper than that and the highest frequency is for those participants who have a bachelor's Degree.

As it is shown in the frequency distribution of job position; in GPA field 16.9 percent were employee, 55.4 percent were Bachelor expert, 20 percent were Master expert, 4 percent were supervisor, and 3.1 percent were deputy, therefore the highest frequency is for Bachelor experts.

In the frequency distribution of gender; 38.5 percent of participants were female and 61.5 percent which is the highest frequency of gender, were male.

Based on the information regarding to the table of service records distribution; it is clear that the average service record is 14.61 with a standard deviation of 8.15, so that the minimum service record is 1 and the maximum service record is 31 years.

According to table of distribution considering the knowledge Creation it is concluded that Knowledge Creation is 3.3 with the standard deviation of 0.86, moreover the minimum and maximum amounts for Knowledge Creation are 1 and 4.7 respectively.

The Distribution of Knowledge Recognition gives the mean of 20.8 with the standard deviation of 0.67 and the minimum and maximum of this variable is 1 and 5 respectively.

The table of Knowledge Sharing distribution shows the mean of 2.9 with the standard deviation of 0.78 and the minimum and maximum success are 1.5 and 5 respectively.

Considering the table of Knowledge Saving and Documentation distribution the mean and standard deviation for this variable are 4.3 and 0.94 respectively so that the minimum is 1.5 and the maximum is 6.5.

The table for Knowledge Application distribution presents the mean and standard deviation of 3.31 and 0.73 respectively with minimum of 2 and maximum of 5.

Table 5: Research findings (Independent sample test)

| | | Test for Equality of Levene's Variances | | t-test for Equality of Means | | | | |
		F	.Sig	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Knowledge Application	Equal variances assumed	1.272	264.	1.277	63	206.	23750.	18594.
	Equal variances not assumed			1.321	56.568	192.	23750.	17975.
Knowledge Sharing	Equal variances assumed	737.	394.	128.	63	898.	02600.	20252.
	Equal variances not assumed			126.	48.098	900.	02600.	20622.
Knowledge Creation	Equal variances assumed	072.	789.	591.	63	557.	13125.	22225.
	Equal variances not assumed			583.	48.946	563.	13125.	22514.
Knowledge Recognition	Equal variances assumed	044.	834.	1.714	63	091.	27000.	15753.
	Equal variances not assumed			1.714	51.055	093.	27000.	15756.
Knowledge Achievement	Equal variances assumed	223.	638.	1.579	63	119.	30200.	19127.
	Equal variances not assumed			1.588	52.062	118.	30200.	19016.
Knowledge Saving & Documentation	Equal variances assumed	021.	886.	1.502	63	138.	35875.	23883.
	Equal variances not assumed			1.519	52.903	135.	35875.	23624.

Table 6: Independent sample test

		Knowledge Recognition	Knowledge Creation	Knowledge Application	Knowledge Sharing	Knowledge Achievement	Knowledge Saving & Documentation
Knowledge Recognition	Pearson Correlation	1	.380**	.616**	.566**	.672**	.577**
	Sig. (2-tailed)		.002	.000	.000	.000	.000
	N	65	65	65	65	65	65
Knowledge Recognition	Pearson Correlation	.380**	1	.785**	.730**	.669**	.682**
	Sig. (2-tailed)	.002		.000	.000	.000	.000
	N	65	65	65	65	65	65
Knowledge Application	Pearson Correlation	.616**	.785**	1	.847**	.797**	.866**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	65	65	65	65	65	65
Knowledge Sharing	Pearson Correlation	.566**	.730**	.847**	1	.747**	.854**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	65	65	65	65	65	65
Knowledge Achievement	Pearson Correlation	.672**	.669**	.797**	.747**	1	.712**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	65	65	65	65	65	65
Knowledge Saving & Documentation	Pearson Correlation	.577**	.682**	.866**	.854**	.712**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	65	65	65	65	65	65
.**Correlation is significant at the 0.01 level (2-tailed).							

According to the table of Knowledge Management distribution the mean of this variable equals to 3.1 with the standard deviation of 0.87 so that the minimum and maximum amounts are 1.5 and 5 respectively.

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