

The Study of the impact of knowledge management on creativity of employees (a case study: Red Crescent society of Ilam province)

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Abstract

The purpose of this research is to study the impact of knowledge management on creativity of employees of Ilam province Red Crescent society. This research is applied based on purpose and is a descriptive- survey based on the manner of obtaining required data. Statistical population of this research includes employees of Ilam province Red Crescent society. The tool of collecting information in this research was a standard questionnaire. Management specialists confirmed its validity. Its reliability obtained by Cronbach's alpha that was 0.94. In this research, we used library method to collect background information and theoretical foundations. Statistical data obtained by field method. We used the tests of Klmvgrf- Smirnov, Pearson correlation coefficient and regression analysis in SPSS software packet to assess hypotheses and analyze data in inferential statistics section. Obtained results show that knowledge creation, implementation, storage and sharing have a meaningful impact on the creativity of employees.

Keywords: knowledge management, creativity of employees, Red Crescent of Ilam province.

Introduction

In recent years, knowledge management has become an important subject in organizations. Both scientific and trade societies believe that organizations can maintain their long-term excellence in competitive areas maintain their long-term excellence in competitive areas with knowledge power. Knowledge management leads to optimal exploitation of available information and present resources in firms and organizations in short term [Rizwan et al, 2011]. The most fundamental feature of smart organization in 21st century is emphasis on knowledge and information. Knowledge is a powerful tool that can change the world and facilitate innovations. Knowledge management has led to fundamental change in the structure of organization. Organizations that view knowledge management as their main capability have a significant difference with other organizations. Among these differences, we can refer to the rate of processes, identification and compatibility with changes, maintenance and growth of mental assets and sustainable competitive advantage via continuous creativity. Knowledge is active information that provides the ability of doing job or judgment about present or future for individuals. Organizations deploy the strategies of knowledge management and provide the potential of innovation in their processes, activities, products and services. Consequently, they improve their competitive situation [Niaz azari et al, 2011]. Organizations should provide necessary processes for growth and training of knowledge. Otherwise, knowledge will lose. If organizations cannot identify potential knowledge of individuals and convert to actual knowledge, knowledge will lose due to forgetting. Therefore, organizations provide the more effective fields of knowledge application via suitable organizational culture bed and management [Maziari et al, 2014]. Organizations not only expect employees to do their tasks and duties correctly, but also they should be creative and innovative, cooperate with each other, be accountable for their professional growth and have high quality of performance [Pourabas, 2008].

Theoretical history

Knowledge management

Knowledge management has a history parallel to that of teaching – learning activities. It can be noted that processes of knowledge, learning and teaching have always existed. Knowledge management derived from ancient mental areas. It has discusses in different schools. However, knowledge management is an infant as a scientific area in the studies of organization, management and interdisciplinary sciences. The roots of knowledge management word date back to the late of 1960s and early of 1970s. Peter Draker invented the word of knowledge worker in 1960s. There were dispersed discussions about knowledge management, but this discussion derived from sociologists such as Amita Etzioni. Therefore, this discussion was not the focus of management magazines [Shaut, 2003].

However, Zand (1969) had significantly predicted the emergence of knowledge society, the emergence of knowledge workers and great changes that are required to manage this kind of knowledge organizations in his article, but he didn't directly speak about knowledge

management rather discussed the management of knowledge organization. Dixon is a sociologist and used the word of knowledge management in a different field. He studied the role of large firms and organizations in the creation and implementation of technical knowledge at community level. Therefore, knowledge management word used to analyze development processes and knowledge implementation at communities, not organizations. Consequently, it is not surprising that this word did not become popular and did not use in applied and theoretical literature.

After 20 years, the word of knowledge management emerged again in the mid of 1980s. Many researchers significantly paid attention to knowledge management [Mayer, 2007]. Different approaches of management and various scientific fields have played an important role in the development of organizational learning and memory.

Among these fields, the deepest impacts result from research areas of organization and human resources management, computer sciences and information systems of management, management science, psychology and sociology.

There was a significant growth in issues regarding knowledge management in the late of 1980s and early of 1990s. In addition, magazines published special numbers about knowledge management.

These advancements are associated with obvious interests of professional advisors in this subject. Therefore, they presented articles, case studies and web sites about this subject.

Creativity of employees

Creativity of employees implies new generation and valuable potential ideas about new products, services, production methods and voluntary process [Li et al, 2012].

Creativity is the power and capability of establishment and creation of new concepts or their implementation in new form via mental skills. Farmer notes that in psychology dictionary, creativity is a psychological process that leads to problem solving, conceptualization, idea inception, theories and products that are unique. From different point of views, creativity is considered as a scientific and human phenomenon. It is defined in different manners. Sternberg (2001) noted that definition of creativity like research about creativity was begun one-century age by scientists of social sciences, but main motivation for research was generated by Guilford in 1950. However, there are various definitions about creativity, but there are compatible concepts in all of these definitions [Hovaida et al, 2012].

In descriptive culture of psychology, creativity is defined as the ability of finding unconventional and high quality solutions for problems. Stein (1962) believed that creativity is the establishment of a new activity that is accepted by a major group as defendable or pleasing [Mahbobi et al, 2010].

Creative thinking implies a skill that individual combines the skills of problem solving and decision making or interpersonal relations and finds the power of detecting and selecting new solutions [Mirkamali and Khorshidi, 2011].

Torrance (1962) notes that creativity is sensitivity to problems, shortages, challenges and gaps of human knowledge, the formation of hypotheses about these shortages, evaluation and test of these hypotheses, possible correction, retest them and finally, conclusion.

Guilford (1950) noted that creativity is a set of capabilities and traits that leads to creative thinking and requires flexibility and originality [Faizi, 2012].

Moorhead and Griphin (1989) stated that creativity is the process of establishment of original view and clear picture about situations. They believe that a creator mind called creative via imagination and portrayal of situation [Mirkamali, 2000].

Rabbinz (1991) noted that creativity implies the ability of combination of thoughts and attitudes in a unique method with the establishment of continuity among them (Malamiri, 2010).

Generally, Characteristics of creativity are as follows:

- ✓ Creativity is a mental process
- ✓ Creativity product can appear in the form of a work, idea, solution, policy or any other thing
- ✓ Creativity product is a new phenomenon
- ✓ Creativity product is new and valuable
- ✓ Creativity is a general ability and there is in all individuals less and more
- ✓ Creativity is trainable and it has a direct relationship with social environment [Alirezaee and Tavalae, 2009].

Experimental history

Elahi et al (2014) studied the impact of process capabilities of knowledge management on innovation performance with mediating effect of innovation process in organizations with advanced technology. They used the model of structural equations particularly path analysis technique to study the effects among variables of research. Obtained results confirmed two hypotheses regarding meaningful impact of process capabilities of knowledge management on innovation process and innovation performance. But hypothesis about meaningful impact of innovation process on innovation performance and indirect impact of process capabilities of knowledge management on innovation performance didn't Confirmed.

Ahmadi et al (2012) studied the relation of organizational creativity and job satisfaction with job stress. Results showed that there is a negative and meaningful relationship between the dimensions of job satisfaction and job stress. In addition, there is a negative and meaningful relationship between the dimensions of organizational creativity and job stress. Job satisfaction is a better predictor for job stress.

Research innovation

This research is a starting point for stuffing the relationship between components and dimensions of these variables in this field because we employed a scientific approach for knowledge management and creativity of employees and up to data there isn't a research about the impact of knowledge management on creativity of employees.

It appears that his research can significantly help the explanation of relations among 3 variables.

Objectives

Main objective:

Explain the extent of impact of knowledge management on creativity of employees

Secondary objectives:

Explain the extent of impact of knowledge creation on creativity of employees

Explain the extent of impact of knowledge

Implement on creativity of employees

Explain the extent of impact of knowledge storage on creativity of employees

Explain the extent of impact of knowledge sharing on creativity of employees

Questions

Main question:

How is the extent of impact of knowledge management on creativity of employees?

Secondary questions:

How is the extent of impact of knowledge creation on creativity of employees?

How is the extent of impact of knowledge implementation on creativity of employees?

How is the extent of impact of knowledge storage on creativity of employees?

How is the extent of impact of knowledge sharing on creativity of employees?

Hypotheses

Main hypothesis:

Knowledge management influences creativity of employees.

Secondary hypotheses:

Knowledge creation influences creativity of employees.

Knowledge implementation influences creativity of employees.

Knowledge storage influences creativity of employees.

Knowledge sharing influences creativity of employees.

Methodology

Full description of research method according to purpose, kind of data and the manner of implementation

- a) - This research is applied in terms of purpose
- b) - It is descriptive- survey in terms of collecting data.
- c) - According to the subject of research, red crescent organization of Ilam province was selected as statistical population. This research is quantitative in terms of implementation method.

Full description (field, library) method and the tool (observation and test, questionnaire, etc) of collecting data:

There are various methods for collecting data. We often use more than one method for obtaining information in a research. We used library method for getting information about theoretical field, Literature of subject and background of research. In addition, we used internet network. We employed field method for collecting data. In field method, we used the tool of questionnaire. In this research, we used the questionnaires of knowledge management and creativity of employees.

Statistical population, sampling method and sample size:

In this research, statistical population includes all employees of Red Crescent society of Ilam province. We selected a specified number of population individuals because population is large and due to the limitation of time and cost.

We studied the characteristics and traits of population using selected sample and calculated indices and statistical parameters. We determined sample size using simple random sampling method and Cochran formula. Sample size was 168 for a population that included 300. For using Cochran formula, we should consider its assumptions. Assumptions of Cochran formula are as follows:

$P = q = 50\%$ (based on probabilistic method); Z is standard statistics of normal distribution that at confidence level of 95% equals 1.96; d is maximum allowable error that equals 5% and N is the number of employees. Therefore, the size of statistical sample (n) based on Cochran formula is calculated as follows:

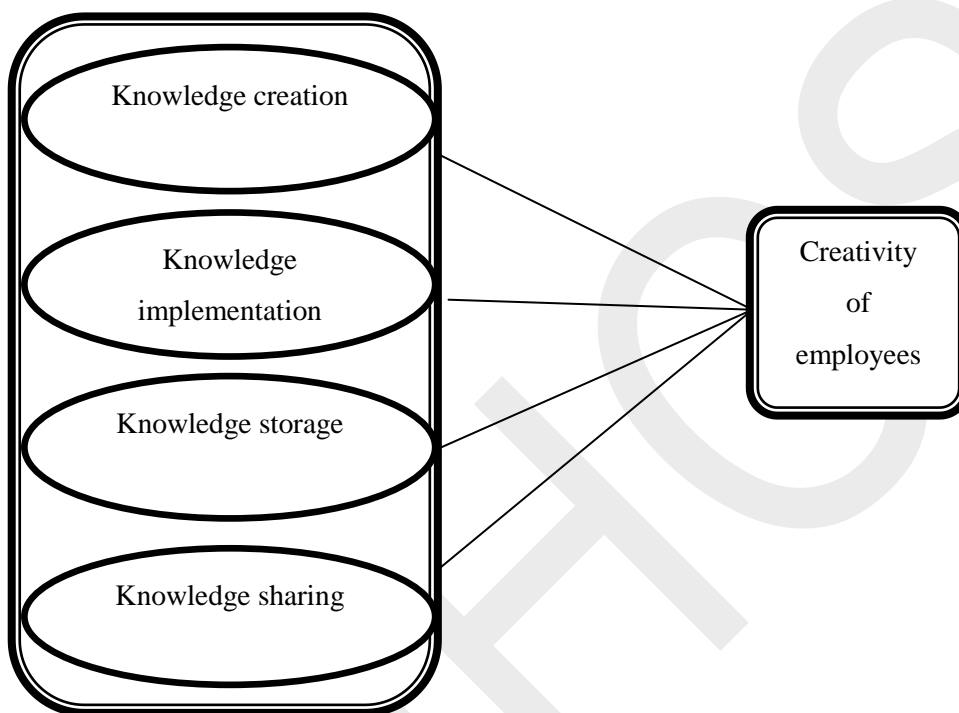
$$n = \frac{N \times z_{\alpha/2}^2 \times p(1-p)}{\varepsilon^2(N-1) + z_{\alpha/2}^2 \times p(1-p)} = \frac{300(1.96)^2 \times 0.5 \times 0.5}{(0.07^2)(300) + (1.96)^2 \times 0.5 \times 0.5} = 168$$

Statistical sample was 168 using Cochran formula and according to population that includes 300 persons.

Conceptual model of research

Figure 1- Conceptual model of research

Knowledge management



Data normality test

Data normality test: We used Klmvgrf- Smirnov test to study variables distribution normality. In this test, H_0 is the normality of Variable distribution. If the value of Sig > 5%, data will be normal.

Otherwise, data will not be normal. In the case of normality, we use Pearson correlation coefficient. We will use Spearman correlation coefficient if the distribution of Variables is not normal.

Table (1): data normality

Variable	sig	Result of normality
Knowledge creation	0.097	normal
Knowledge implementation	0.206	normal
Knowledge storage	0.323	normal
Knowledge Sharing	0.288	normal
Creativity of employees	0.562	normal

We use Pearson correlation coefficient because data is normal.

Information analysis

In order to test hypotheses, first we evaluate meaningfulness level and then deal with correlation between each one of components of knowledge management and creativity of employees.

Table (2): Correlation test between variables

		Creativity of employees	Knowledge management	Knowledge sharing	Knowledge storage	Knowledge implementation	Knowledge creation
Pearson test	Correlation	1					
	Meaningfulness	0.000					
	level	168					
	Number						
	Correlation	0.542	1				
	Meaningfulness	0.000	0.000				
level	168	168					
Number							
Correlation	0.186	0.452	1				
Meaningfulness	0.000	0.000	0.000				
level	168	168	168				
Number							
Correlation	0.541	0.489	0.426	1			
Meaningfulness	0.000	0.000	0.000	0.000			
level	168	168	168	168			
Number							
Correlation	0.750	0.839	0.228	0.719	1		
Meaningfulness	0.000	0.000	0.000	0.000	0.000		
level	168	168	168	168	168		
Number							
Correlation	0.233	0.436	0.248	0.630	0.448	1	
Meaningfulness	0.000	0.000	0.000	0.000	0.000	0.000	
level	168	168	168	168	168	168	
Number							

Result of analysis and interpretation of data show that there is a positive relationship between knowledge management and creativity of employees. Since there is a meaningful relationship between variables, we evaluate the extent of impact of variables.

Table (3) the impact of components of knowledge management on creativity of employees

Name of variable	Correlation coefficient	Determination coefficient	Adjusted determination coefficient	Standard deviation of error	Sig
Knowledge management	0.487	0.216	0.213	0.612	0.000
Knowledge creation	0.521	0.053	0.051	0.672	0.000
Knowledge implementation	0.248	0.126	0.124	0.646	0.000
Knowledge storage	0.630	0.061	0.058	0.669	0.000
Knowledge sharing	0.448	0.381	0.380	0.543	0.000

Results of testing hypotheses are shown in table (4).

Table (4)- Results of testing hypotheses

Hypothesis number	Hypothesis of research	result
Main hypothesis	Knowledge management has a meaningful impact on creativity of employees	Confirmed
Secondary hypothesis (1)	Knowledge creation has a meaningful impact on creativity of employees	Confirmed
Secondary hypothesis (2)	Knowledge implementation has a meaningful impact on creativity of employees	Confirmed
Secondary hypothesis (3)	Knowledge storage has a meaningful impact on creativity of employees	Confirmed
Secondary hypothesis (4)	Knowledge sharing has a meaningful impact on creativity of employees	Confirmed

Conclusion and suggestions

The purpose of present research is to study the impact of knowledge management on creativity of employees.

Obtained results show that knowledge creation has a meaningful impact on creativity of employees. Knowledge implement has a meaningful impact on creativity of employees. Knowledge storage has a meaningful impact on creativity of employees and knowledge sharing has a meaningful impact on creativity of employees. Finally, we present the following suggestion.

It is suggested that managers of firms deal with development of infrastructure and capabilities of firm in direction with knowledge management processes because these lead to creativity of employees. On the other hand, they should create necessary associations between objectives and strategies of firm with capabilities of knowledge management.

It is suggested that managers deal with identification of formal mechanism for enhancement and dissemination of processes of knowledge management and creativity of employees in the firm.

It is suggested that managers adopt suitable approaches and methods for supervision, evaluation, feedback and responding about the performance of firm in terms of foundation of knowledge management and capacities.

It is suggested that employees who have up to date information disseminate their information. Managers should encourage employees to share their knowledge and enhance the creativity of them.

Since material motivators have a higher impact on knowledge sharing, therefore it is suggested that manager use material incentives for enhancement of knowledge sharing among employees.

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