

The Relationship Between Knowledge Management with Creativity and Innovation

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Abstract: Knowledge management was raised as the most important principle in business success and competitive advantage for organizations. Today, >80% of the world's major businesses clearly benefit from knowledge management. The aim of this study is to investigate the relationship between knowledge management process and performance of employees of Imam Khomeini Relief Committee (IKRC) Zahedan concerning creativity and innovation as mediator variables. Regarding the purpose, the research is applied and in terms of data collection, it is survey. The assessment tool of research variables is questionnaire that was distributed among 173 employees. In order to analyze information and evaluate the relationships between the variables of the research, structural equation-modeling approach and Amos 22 Software were used. The results showed that there is a significant relationship between knowledge management and employee performance. The results showed that there is a significant positive relationship between knowledge management and innovation. Knowledge management processes have a positive and significant relationship with the decision-making processes in the organization. Moreover, there is a significant relationship between creativity, innovation, decision-making process with employee performance. Finally, mediator variables (creativity, innovation and decision-making process) have a positive mediating role between independent and dependent variables. In examining the relationship between knowledge management and employees' performance, it was shown that there is a positive relationship between five dimensions of knowledge management including absorbing, storing, organizing, distribution and deployment and performance of employees. However, no relationship was not found between knowledge and practice entrepreneurship.

Key words: Knowledge management, employee performance, creativity and innovation, IKRC, analyze

INTRODUCTION

Today, the new attitude ahead indicates that the demands of a dynamic economy require creation of a new approach in the organizations and all these are due to the surge in production and development of information in the present era which makes organizations to rethink their functions and activities. In the meantime, one of the main activities is management of innovation and creativity.

Creativity is to use mental abilities to create a new thought or concept. Creativity is the ability to combine ideas in a unique way or to create continuity between the ideas. Organizational creativity means offering a thought as well as the presentation of a new plan to improve and enhance the quantity or quality of the organization's activities such as increased productivity, output or service, reduced costs, products or services through better methods, new products or services, etc. Creativity is a process where creative solutions are formed to problems and this process includes preparation, latency, illumination and proof (Amabile, 1988).

Innovation is the process of perception or creation of the related knowledge and converting it into improved or new products and services for people who are interested. Innovation is the process of getting creative idea and converting it into products, services and new ways of operation. As can be deduced from the above definitions, creativity is essential for innovation and innovation research is related to creativity. Although, in practice these two cannot be distinguished from one another, we can assume that creativity is the ground for growth and the emergence of innovation. Sometimes new ideas come from a fresh mind and in later years that new idea is manifested in a product or a service as innovation by another person (Balogun *et al.*, 2004).

Knowledge is discussed as the base and the most important factor in competition and in addition to knowledge, innovation has been recognized as the most important factor for survival of the organizations. In the literature related to innovation, knowledge has been raised as one of the most important components of the process of innovation (Felson, 1989). Thus, knowledge

management is usually recognized as the main source of innovation and seen as the basic obligations of innovation process in the organization. Knowledge management includes the process of optimal combining of knowledge and information in the organization and creation of a suitable environment for production, sharing and applying knowledge and training of creative and innovative human resources. The purpose of knowledge management is creating a learning organization and partnership by creating a flow between the databases generated by the staff of various divisions (financial, performance, competitive intelligence, etc.) and connecting them with each other. In other words, the ultimate aim of knowledge management is improving the benefit of knowledge management in organizations to develop and enhance creativity, productivity and creating competitive advantage for the organization.

Knowledge management aspects in the present study include maintaining knowledge, knowledge acquisition and application of knowledge.

On the one hand, IKRC is as a revolutionary institution of non-profit and public institutions type and is under the supervision of the supreme leader (Pezeshki *et al.*, 2011) which is headquartered in Tehran and has branches in all cities and most parts of the country in some parts in abroad. Moreover as the main relief unit, it directly deals with the clients and customers with the goal of empowerment, blooming of talents, providing self-reliance for the poor and disadvantaged and strengthening and increasing their faith with social services, education, culture and livelihood. Thus, following what mentioned above, IKRC Zahedan will not be an exception to this due to the organization's vision and mission so, the main aim of this study is to investigate the relationship between knowledge management with creativity and innovation of IKRC Zahedan staff.

Literature review

Knowledge management: Maei Hotte believed that knowledge management and wisdom include the activities and organizational processes searching a combination of the capacity of organization processing regarding the data and information with organization capability in creativity and innovation of employees.

According to Frappaolo knowledge management deals with using and developing knowledge capital of an institution and the goals of the institution. Armstrong says: knowledge management is using information to achieve the realities of business and the art of creating

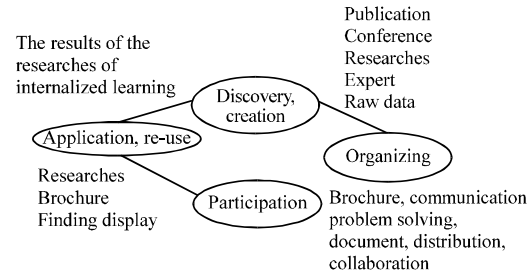


Fig. 1: Knowledge cycle

value by intangible assets to achieve goal in other words, knowledge management is the strategy of creating knowledge on time by people at real time and it helps the people to share the information and improves the organizational performance. According to Chmieleka, knowledge management features include the items shown in Fig. 1.

Organizational innovation: Amabill defines the organizational innovation as the successful implementation and execution of creative ideas in an organization.

According to Mumford *et al.* (2002), organizational innovation includes changes in the structure and processes of an organization to use new management, job and operational concepts like application of groups in production, supply chain management and quality management systems. Therefore according to the findings by Baker, organizational innovation is to use ideas which are useful for the company, no matter the innovation appears in the products, processes, management systems or marketing activities.

According to Draker from management point of view innovation is a type of change that creates a new dimension of performance and from organizational point of view it is exploitation of new ideas (Farmer *et al.*, 2003; Munoz-Doyague and Nieto, 2012). In fact the process of creation, development and execution of a new idea or behavior is called innovation. It should be known that innovation can be considered as an organizational change to respond to the external environment or to influence on it.

Organizational innovation is a new invention of science or development of new information such as a concept, theory or hypothesis; in other words, organizational innovation means a new thing to be used. Organizational innovation necessitates transforming ideas to the usable organizational forms and the idea used for the promotion of organization performance (Findlay and Lumsden, 1988).

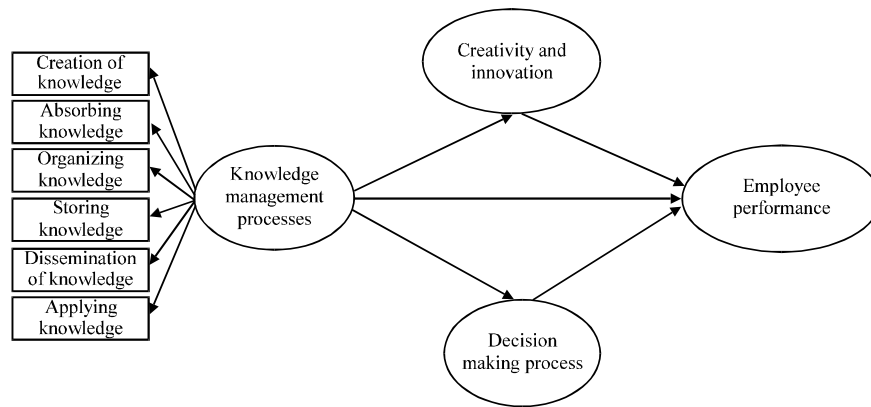


Fig. 2: The conceptual model

Hypotheses

The main hypothesis: There is a relationship between knowledge management processes and employees' performance through creativity and decision-making processes.

Sub-hypotheses:

- There is a relationship between knowledge creations and employees' performance
- There is a relationship between absorption of knowledge and employees' performance
- There is a relationship between the organizations of knowledge and employees' performance
- There is a relationship between the storage of knowledge and employees' performance
- There is a relationship between the dissemination of knowledge and employees' performance
- There is a relationship between the applications of knowledge and employees' performance
- Creativity and innovation have a mediating role in the relationship between knowledge management processes and staff performance
- Decision-making processes have a mediating role in the relationship between knowledge management processes and staff performance

Conceptual model of research: Conceptual model of the research (Beijerse, 1999) is given in Fig. 2.

MATERIALS AND METHODS

Implementation: Regarding the purpose, this research is applied and based on data collection, it is descriptive-survey and regarding conducting, it is correlational. The population of this study includes all employees of IKRC Zahedan who are 350 people.

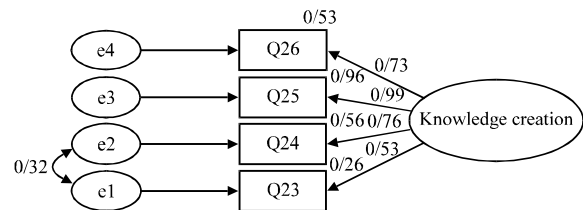


Fig. 3: Confirmatory factor analysis model for knowledge creation variable

Sampling is simple random. The sample size was calculated as 173 based on Morgan table. University library was used to gather information and achieve the required theories and field method included distribution of questionnaires whose validity was confirmed by professors and experts and its reliability was approved by using Cronbach's alpha. For analyzing the hypotheses of this study, inferential statistics, factor analysis and structural equation models were used for each indicator. The tests were conducted using SPSS and AMOS.

RESULTS AND DISCUSSION

Confirmatory factor analysis model for knowledge management variable: Knowledge management processes is composed of six aspects: knowledge creation, absorbing knowledge, knowledge organization, knowledge storage, knowledge dissemination and application of knowledge. According to research the by Barbosa and Cardoso (2007), items have been reported for each of the dimensions. In the following, it is tried to study confirmatory factor analysis model for knowledge management aspects, each of the items is measured through four questions and then the first aspect is fitted (Fig. 3). Fitting indicators are expressed in Table 1.

Confirmatory factor analysis of creativity and innovation:

In this research, creativity and innovation variables are measured using six items. Confirmatory factor analysis model of this section is presented in Fig. 4.

In Table 2 fit indices aspects of confirmatory factor analysis and innovation have been investigated. In Table 2 fit indices aspects of modified confirmatory factor analysis and innovation have been investigated.

Confirmatory factor analysis of the decision making process: Decision-making process in this study was measured using nine items. Confirmatory factor analysis of this variable is expressed in Fig. 4-5.

According to Table 2, it was determined that factor loadings of each item is greater than 0.4 and approved. And fitting indices have also been approved.

Structural equation modeling: In the previous parts, every variable was examined and the necessary amendments were made to the models to reach proper fit level. In this part, the general model is assessed and based on it, the hypotheses are examined (Fig. 6). The fit indices of the model will be as follows in Table 3.

In Table 4, the regression coefficients which reflect the effect of the components on each other and meaningfulness of these factors is summarized.

The first hypothesis (creativity and innovation have a mediating role in the relationship between knowledge management processes and staff performance): By examining the relationship between two variables, significance level of 0.02 and significance level number 6.421 of were calculated, so the relationship between these two variables is confirmed. The correlation coefficient is 0.44 which indicates the positive average correlation between the two variables. This means that with every one unit increase in any variable, we witness 0.44 increase in another variable.

The second hypothesis (there is a relationship between knowledge management processes and employees' performance through creativity and decision-making processes): By examining the relationship between two variables, a significant level of 0.048 and significance number 3.214 were calculated, so the relationship between these two variables is confirmed. The correlation coefficient is 0.35 which represents the intensity of the relationship (positive and good) between variables.

The third hypothesis (there is a relationship between knowledge management processes and employees' performance through creativity and decision-making processes): By examining the relationship between two

Table 1: Goodness of fit index for factor confirmatory model of knowledge management processes

Status	The acceptable value	The value obtained	Index
Accept	GFI>90%	0.978	GFI
Accept	0.90<CFI<1	0.983	CFI
Accept	<3	2.880	CMIN/df
Accept	RMSEA<0.1	0.082	RMSEA

Table 2: Goodness of fit indexes for confirmatory factor analysis of creativity and innovation

Status	The acceptable value	The value obtained	Index
Accept	GFI>90%	0.947	GFI
Accept	0.90<CFI<1	0.956	CFI
Confirmed	<3	0.856	CMIN/df
Confirmed	RMSEA>0.08	0.074	RMSEA

Table 3: Goodness of fit indices, structural model confirming model

Status	The acceptable value	The value obtained	Index
Accept	GFI>90%	0.997	GFI
Accept	0.90<CFI<1	0.912	CFI
Accept	<3	1.83	CMIN/df
Accept	RMSEA<0.08	0.087	RMSEA

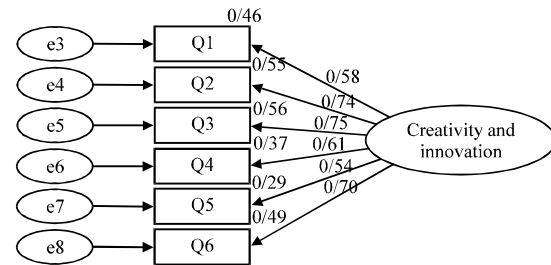


Fig. 4: Confirmatory factor analysis of creativity and innovation

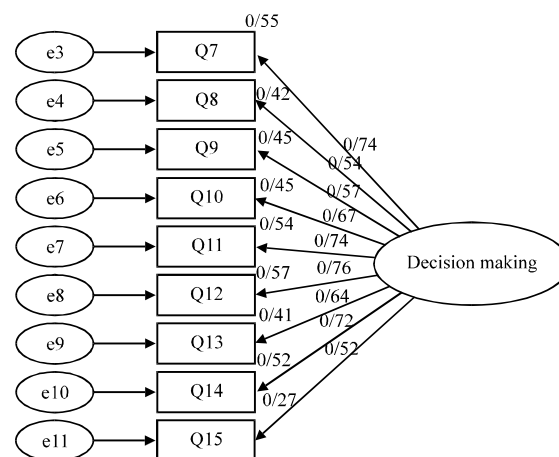


Fig. 5: Confirmatory factor analysis of the decision making process

variables, a significant level of 0.040 and significance number 4.419 were calculated, so the relationship between

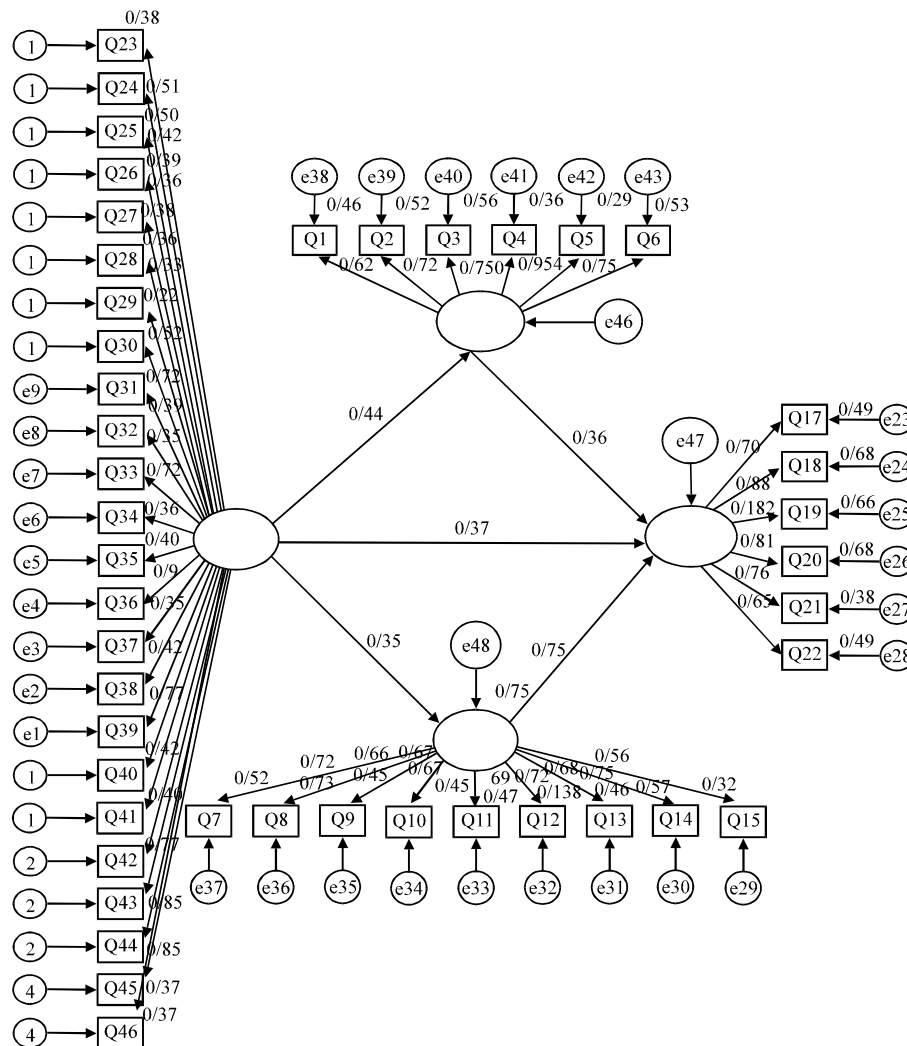


Fig. 6: Structural equation modeling of the research

Table 4: Regression coefficients of components of research (hypotheses testing)

Hypothesis	Component effect	On the component	Correlation coefficient	Significance number	Results
1	Knowledge management processes	Creativity and innovation	0.44	6.421	Confirmed
2	Knowledge management	Decision making process	0.35	3.214	Confirmed
3	Creativity and innovation	Employees' performance	0.36	4.419	Confirmed
4	Knowledge management	Employees' performance	0.37	4.455	Confirmed
5	Decision making process	Employees' performance	0.75	11.231	Confirmed

these two variables is confirmed. The correlation coefficient is 0.36 which represents the intensity of the relationship (positive and good) between variables.

The forth hypothesis (there is a relationship between knowledge management processes and employees' performance): By examining the relationship between two variables, a significant level of 0.038 and significance number 4.455 were calculated, so the relationship between these two variables is confirmed. The correlation

coefficient is 0.37 which represents the intensity of the relationship (positive and good) between variables.

The fifth hypothesis (there is a relationship between decision-making processes and employees' performance): By examining the relationship between two variables, a significant level of 0.000 and significance number 11.23 were calculated, so the relationship between these two variables is confirmed. The correlation coefficient is 0.75 which represents the intensity of the relationship (positive and excellent) between variables.

CONCLUSION

This study tries to answer the question of whether there is a relationship between knowledge management and creativity and innovation of staff.

SUGGESTIONS

Finally, some suggestions are offered:

- Creative ideas must be recorded and documented in the organization executive apart from being feasible
- The conditions must be provided so that people can share their ideas with colleagues in the organization
- Always when people see their ideas are not implemented in the organization and will not be operational, they do not continue to give other proposals. However, there should be a team in the organization that evaluates creative ideas and practical ideas and about the ideas that cannot be implemented the reasons be expressed should be expressed
- Stimulation and motivation on team
- Providing appropriate tools
- Reducing bureaucracy and increasing democratic space

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