

Research Article

THE EFFECT OF KNOWLEDGE MANAGEMENT ON THE QUALITY OF ORGANIZATIONAL SERVICES AND INNOVATION IN SHIRAZ PUBLIC LIBRARIES

Asma Ghavami¹, *Fazlollah Kazemi² and Alireza Ghasemizad³

¹Department of Management, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran
Department of Management, Fars Science and Research Branch, Islamic Azad University, Marvdasht, Iran

²Department of M.B.A, Shiraz Branch, Islamic Azad University, Fars, Iran

³Department of Management, Kazeron Branch, Islamic Azad University, Fars, Iran

*Author for Correspondence

ABSTRACT

The present research studies the effect of knowledge management on the quality of organizational services and innovation in Shiraz public libraries. This is a correlational survey study with information gathered by field and library approaches. The statistical population includes 61 employees working for public libraries and 56 of them were selected according to Morgan's table as a sample. 61 questionnaires were distributed among them to complete and return. To collect data, knowledge management questionnaire developed by Aminzadeh (2013) with Cronbach's alpha at 0.939, SERVQUAL model service quality questionnaire developed by Venus and Rezaeeian (2009) with cronbach's alpha at 0.949 and organizational innovation questionnaire developed by Chupani (2011) with cronbach's alpha at 0.915 were employed. Research findings disclosed that there was a strong and positive correlation between knowledge management and the quality of services and between knowledge management and organizational innovation. Given beta coefficients, the quality of services and organizational innovations can be forecast according to the effect of knowledge management by regression analysis.

Keywords: Knowledge Management, Quality of Services and Organizational Innovation

INTRODUCTION

Many pundits believe that due to the engagement of many areas including technology management, innovation, organizational processes and structure, human capital and organizational culture in knowledge management, the growth of knowledge management should be widely studied. In today's world, knowledge is considered as an important asset and a major factor of sustainable competitive advantages. Contrary to other organizational assets with declining value when being used, it gains more value when used. Managing this vital asset, thus, has been turned one of the most important objectives of organizations and enterprises seeking competitive advantages. Increasing information, technological advancements, growing professional specialization, competition, mobility, job rotation, and organizational knowledge accumulation are of the main reasons of knowledge management in organizations (Tivana, 2000).

Knowledge management is an art of organizing, applying and communicating knowledge to facilitate the perception of conditions and decision-making. The effective practice of such art in organizations is regarded as a measure of knowledge management. Evaluating knowledge management allows organizations to find how they should implement their knowledge. There are several criteria for measuring organizational knowledge management. These criteria should state the value and the effectiveness of knowledge management. Criteria-bases evaluation models are used to measure the development of organizational knowledge management (Javedani, 2009). As the research examines the relationship between knowledge management and innovation and the quality of services, innovation and aptitude toward employees' knowledge, specialization and commitment are the key inputs of value-making. In response to environmental changes and developing new capabilities to have better performance, higher innovative organizations are more successful (Rouni, 2006).

Research Article

Innovation is so important for companies and organizations, because it provides them with lasting competitive advantages. Many organizations struggle to solve their competitive difficulties arising from the fast pace of changes in the environment, technological changes in particular. Accordingly, managers and employees have to have the power of innovation and creativity to keep up with the fast changing production lines, managerial approaches, production processes, etc. (Yousefi, 2011).

The quality of services can now help organizations make themselves quite distinct from other organizations and achieve competitive advantages. Offering high quality services, companies can acquire competitive advantages in terms of position. Deeply quality-oriented companies can develop both their internal culture and external fame so as competitors hardly emulate them (Amiri, 2007).

Regarding what mentioned before, this research looks at the effect of knowledge management on the quality of services and the organizational innovation offered by employees of Shiraz public libraries.

Research Literature

Knowledge Management

Knowledge management is a process of distributing and spreading personal and organizational learning throughout the organization resulting in improved organizational output and performance (Buckman, 1999). According to VounKru, knowledge management is an effort put into discovering latent assets in people's mind and turning it into an organizational asset so that those engaged in decision-making have access to this wealth and work with it (Wilson, 2003).

Knowledge Management Processes

1. Acquiring Knowledge

Organizational information can be acquired by inquiring in three ways:

- A. Scanning
- B. Concentrated inquiring
- C. Functional supervision

Scanning refers to a relatively wide range of information received from external environment. Concentrated inquiring occurs when organizations' or departments' members are actively searching for information in a small section of internal or external environment. This is mostly in reaction to real or skeptical problems or opportunities. Functional supervision is exercised for averagely concentrated and extensive organizational perceptions and to meet predefined objectives and shareholders' requirements.

Organizational learning plays an important role in acquiring knowledge. There are two types of learning called type 1 and type 2. They are also called single and double loop learning. From such perspective, acquiring and creating knowledge certainly include an interaction between two types forming a type of dynamic spiral (Argis, 1996). Acquiring implicit knowledge that cannot be directly processed is a major part of this stage developing improvements, creativities, products, and processing, and making value. It turns finally into a part of the new knowledge (Agris, 1996).

2. Organizing Knowledge

According to Downport, organizing and categorizing knowledge should be an important capability of future organizations. Human resource management has the following tasks:

- 1. Making decisions to find important knowledge
- 2. Creating a knowledge dictionary
- 3. Developing inquiring tools and measures
- 4. Continuously categorizing and refining knowledge (Solimun, 1998)

3. Applying Knowledge

If knowledge is efficiently applied throughout the organization, instead of maintained knowledge, people can get access to important strategic ideas. In his research studies, Apilard examined knowledge transferring models in different countries and industries. Additionally, Kim and Bock studied the effects of motivation factors on promoting knowledge (Musakhani et al., 2008).

Preparing for Knowledge Management

Hault defined preparation as a necessary prerequisite of individual or organizational prosperity in face of organizational changes. Such preparation for knowledge management can be defined as a set of necessary

Research Article

prerequisites for successfully implementing knowledge management. In other words, it is a set of organizational capabilities to gain access to the required substructure of managing knowledge and the capacities of applying them.

Organizational Innovation

In current situation, innovation is so important for organizations’ triumphs and survivals. It virtually serves as a determining element (Saeedi, 2010). Innovation is a new and improved thing whether directly occurring in organizations or indirectly for customers (Business Council of Australia, 1993). Accordingly, it can take different aspects. Innovation can be defined, for example, as a process of creating a new technology, improving current technologies, and/or turning opportunities into practical exploitation (Wonglimpiyart, 2004). From management perspective, it is a process starting from an idea and ending in improving procedures and new methods of producing new products or services (Fakur, 2009).

Innovation in products includes producing and offering new products and services to the market. The most important factor is to have a novel new idea to produce new commodities and process and use them in order to improve organizational productivity and efficiency. One approach in this regard is to provide a ground for encouraging organization’s members to present new ideas and help organization to move toward innovation. In such organization, employees’ genius and ideas are considered as the main asset (Saeedi, 2010).

Quality of Services

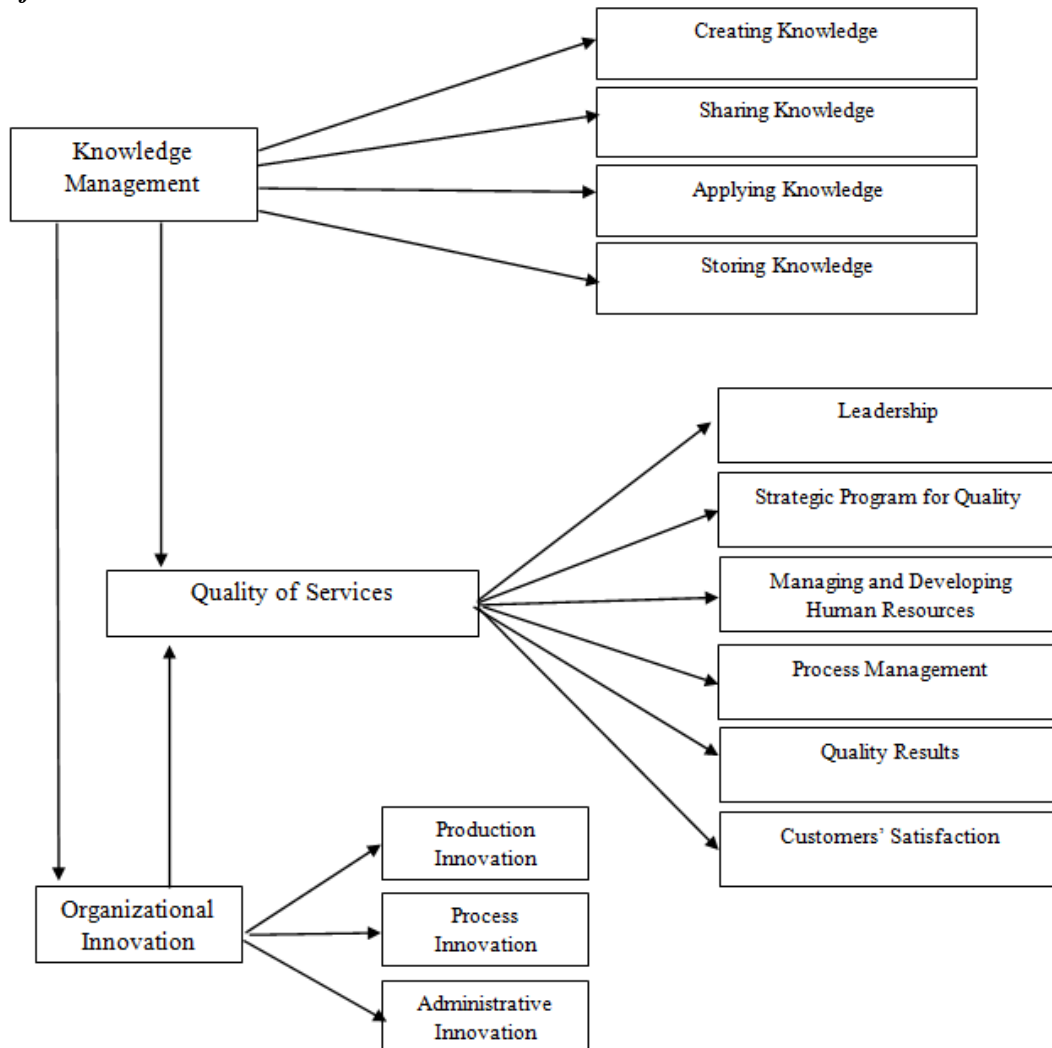


Figure 1: Research conceptual model

Research Article

The quality of services is defined as a universal judgment or an insight into the superiority of a service resulting from comparing customers' expectations and perceptions of the real performance of services. Most theorists consider satisfaction and quality as two distinct concepts.

According to them, while the quality of services is a general insight into the organization, customers' satisfaction relates to a specific exchange between customers and organizations. It is, in fact, a short-term criteria concentrated on personal and emotional reaction to focused services. For example, customers may be satisfied with a transaction with an organization but generally having a negative perception of the organization. Bradie and Kranin believe that discussion over these two concepts can be divided into three major areas: first, there is no agreement about the causal relation between the quality of services, satisfaction and behavioral intentions. Second, no certain solution has been found to work with this concept because of using gap-based models of measuring the quality of services. And finally, due to the difficulties of using different criteria, there are unsolved subjects about meeting customers' satisfaction.

Although the research literature clearly shows the importance of these two concepts and has proved their distinctions, there is no comprehensive agreement on the causal order of them. So it is not clear whether managers should concentrate on improving the quality of services and their components as a tool to create appropriate behavioral intentions or it is better to stress on the importance of customers' satisfaction (Soltani, 2011).

Research Hypotheses

Leading Hypotheses

1. There is a significant correlation between knowledge management and the employees' quality of services.
2. There is a significant correlation between knowledge management and the employees' organizational innovation.

Secondary Hypotheses

1. There is a significant correlation between knowledge management and production innovation.
2. There is a significant correlation between knowledge management and process innovation.
3. There is a significant correlation between knowledge management and administrative innovation.
4. There is a significant correlation between knowledge management and leadership.
5. There is a significant correlation between knowledge management and the strategic program of quality.
6. There is a significant correlation between knowledge management and managing and developing human resources.
7. There is a significant correlation between knowledge management and process innovation.
8. There is a significant correlation between knowledge management and quality results.
9. Knowledge management is the predictor of organizational innovation and the quality of services.

MATERIALS AND METHODS

This is a correlation survey study with information gathered by field and library approaches. The statistical population includes 61 employees working for public libraries and 56 of them were selected according to Morgan's table as a sample. 61 questionnaires were distributed among them to complete and return. To collect data, knowledge management questionnaire developed by Aminzadeh (2013) with Cronbach's alpha at 0.939, SERVQUAL model service quality questionnaire developed by Venus and Rezaeeian (2009) with cronbach's alpha at 0.949 and organizational innovation questionnaire developed by Chupani (2011) with cronbach's alpha at 0.915 were employed. Research findings disclosed that there was a strong and positive correlation between knowledge management and the quality of services and between knowledge management and organizational innovation. Data were analyzed by regression analysis and Pearson's correlation coefficient.

Research Article

Data Analysis

First Leading Hypothesis

Table 1: Investigating the correlation between knowledge management and employees’ quality of services

	Pearson’s Correlation	Level of Significance	Sig	Type of Correlation	of
Quality of Services Knowledge Management	0.865	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.865 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and the quality of services is confirmed.

Second Leading Hypothesis

Table 2: Investigating the correlation between knowledge management and organizational innovation

	Pearson’s Correlation	Level of Significance	Sig	Type of Correlation	of
Organizational Innovation Knowledge Management	0.921	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.921 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and employees’ organizational innovation is confirmed.

First Secondary Hypothesis

Table 3: Investigating the correlation between knowledge management and production innovation

	Pearson’s Correlation	Level of Significance	Sig	Type of Correlation	of
Production Innovation Knowledge Management	0.913	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.913 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and production innovation is confirmed.

Second Secondary Hypothesis

Table 4: Investigating the correlation between knowledge management and process innovation

	Pearson’s Correlation	Level of Significance	Sig	Type of Correlation	of
Process Innovation Knowledge Management	0.857	0.05	0.000	Positive and Significance	

Research Article

According to above table, as the correlation value is 0.857 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and process innovation is confirmed.

Third Secondary Hypothesis

Table 5: Investigating the correlation between knowledge management and administrative innovation

	Pearson's Correlation	Level of Significance	Sig	Type of Correlation	of
Administrative Innovation Knowledge Management	0.807	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.807 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and administrative innovation is confirmed.

Forth Secondary Hypothesis

Table 6: Investigating the correlation between knowledge management and leadership

	Pearson's Correlation	Level of Significance	Sig	Type of Correlation	of
Leadership Knowledge Management	0.632	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.632 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and leadership is confirmed.

Fifth Secondary Hypothesis

Table 7: Investigating the correlation between knowledge management and strategic program of quality

	Pearson's Correlation	Level of Significance	Sig	Type of Correlation	of
Strategic Program of Quality Knowledge Management	0.699	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.699 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and strategic program of quality is confirmed.

Sixth Secondary Hypothesis

Table 8: Investigating the correlation between knowledge management and managing and developing human resources

	Pearson's Correlation	Level of Significance	Sig	Type of Correlation	of
Managing and Developing human Resources Knowledge Management	0.644	0.05	0.000	Positive and Significance	

Research Article

According to above table, as the correlation value is 0.644 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and managing and developing human resources is confirmed.

Seventh Secondary Hypothesis

Table 9: Investigating the correlation between knowledge management and process management

	Pearson's Correlation	Level of Significance	Sig	Type of Correlation	of
Process Management Knowledge Management	0.697	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.697 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and process management is confirmed.

Eighth Secondary Hypothesis

Table 10: investigating the correlation between knowledge management and quality results

	Pearson's Correlation	Level of Significance	Sig	Type of Correlation	of
Quality Results Knowledge Management	0.810	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.810 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and quality results is confirmed.

Ninth Secondary Hypothesis

Table 11: Investigating the correlation between knowledge management and customers' satisfaction

	Pearson's Correlation	Level of Significance	Sig	Type of Correlation	of
Customers' Satisfaction Knowledge Management	0.692	0.05	0.000	Positive and Significance	

According to above table, as the correlation value is 0.692 and the level of significance is smaller than 0.05 ($0.000 < 0.05$), the correlation between knowledge management and customers' satisfaction is confirmed.

Tenth Secondary Hypothesis

Table 12: investigating the effect of knowledge management on organizational innovation

	t Statistic	Beta	Standard Deviation	Sig	F	R	R ²
Organizational Innovation Knowledge Management	18.221	0.921	0.04	0.000	331.989	0.921	0.849

According to the table observations, knowledge management predicts organizational innovation.

Research Article

The regression relation is as follows:

(Knowledge management) 0.921 = (organizational innovation)

As the correlation between organizational innovation and knowledge management is 0.921, there is a direct and strong correlation between them. In other words, management knowledge increases with organizational innovation.

Table 13: Investigating the effect of knowledge management on the quality of services

		t Statistic	Beta	Standard Deviation	Sig	F	R	R ²
Quality of Services Knowledge Management		13.225	0.865	0.05	0.000	174.910	0.865	0.748

According to the table observations, knowledge management predicts organizational innovation.

The regression relation is as follows:

(Knowledge management) 0.865 = (quality of services)

As the correlation between the quality of services and knowledge management is 0.865, there is a direct and strong correlation between them. In other words, knowledge management increases with the quality of services.

Calculating R and R² or Determinants (between the quality of services and knowledge management)

Based on the information given in table 14, R equals to 0.865 and R² or the determinant is 0.75. This means that 75 percent of the variance of service quality is explained by the regression model or knowledge management. To reach 100 percent quality, the effect of other independent variables on the quality of services should be studied in order to complete the remaining 25 percent.

Table 14: R and R²

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
dimension0	1	.865 ^a	.748	.743	.29569

a. Predictors: (Constant), keyfiyat

Calculating R and R² or Determinants (between organizational innovation and knowledge management)

Based on the information given in table 15, R equals to 0.921 and R² or the determinant is 0.849. This means that 85 percent of the variance of service quality is explained by the regression model or knowledge management. To reach 100 percent quality, the effect of other independent variables on organizational innovation should be studied in order to complete the remaining 15 percent.

Table 15: R and R²

Model		R	R Square	Adjusted R Square	Std. Error of the Estimate
dimension0	1	.921 ^a	.849	.847	.22871

a. Predictors: (Constant), Noavari

RESULTS AND DISCUSSION

Results

First Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and employees' services. According to results, the correlation was calculated at 0.865. As it is smaller than the significance level 0.05 (0.000<0.05), the hypothesis (correlation between knowledge management and the quality of services) is confirmed. In a research study titled "an investigation on the

Research Article

relationship between knowledge management maturity, innovation, and the quality of services in Maskan Bank, Urmia”, Mahdavi (2012) stated that hypothesis tests proved the positive and significant correlation between knowledge management, innovation, and the quality of services and determined the level of knowledge management maturity.

Second Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and organizational innovation. According to results, the correlation was calculated at 0.921. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and organizational innovation) is confirmed. In a research study titled “sharing knowledge to motivate in knowledge management systems is a semi-correct test”, Weng *et al.*, (2014) stated that there was a positive and significant correlation between evaluation and evaluating positive reward and sharing knowledge. Sharing knowledge also affects the mutual relation with evaluating positive reward, responsibility, psychosis, and experience taking.

First Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and production innovation. According to results, the correlation was calculated at 0.913. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and production innovation) is confirmed. In a research study titled “an investigation on the effect of knowledge management on innovation among managers and employees in technology companies in the science and technology park in Urmia”, Usefi *et al.*, (2011) stated that there was a positive and significant correlation between knowledge and innovation management (product, process, progressive and fundamental). Thus, if companies consider knowledge management more effectively, innovation would increase.

Second Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and process innovation. According to results, the correlation was calculated at 0.857. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and process innovation) is confirmed. In a research study titled “the effect of strategic knowledge management on the performance of companies listed in Tehran Stock Exchange”, Vazifehdoust *et al.*, (2012) concluded that knowledge management strategies can directly and indirectly affect the performance of these companies (by increasing innovation capabilities).

Third Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and administrative innovation. According to results, the correlation was calculated at 0.807. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and administrative innovation) is confirmed. In a research study titled “knowledge management, knowledge innovation, innovation performance in small and average companies”, Mirfakhredini *et al.*, (2010) concluded that there was a positive and significant correlation between knowledge management and knowledge innovation and between knowledge management and innovation performance.

Forth Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between leadership. According to results, the correlation was calculated at 0.632. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and leadership) is confirmed. In a research study titled “an investigation on the effect of leadership of high education institutes on educational processes”, Martin and Mariun (2005) concluded that the effect of knowledge management is on six vital areas including leadership of environment, networks, policies, crises, knowledge gaps and preparing future leaders.

Research Article

Fifth Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and the strategic planning of quality. According to results, the correlation was calculated at 0.699. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and the strategic planning of quality) is confirmed. Investigating the five variables of organizational culture (integrity, challenging, risk-taking, communication system, and freedom), Sadeghi and LotfAllahzade (2010) showed that organizational culture directly affected employees' creativity.

Sixth Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and human resource management and development. According to results, the correlation was calculated at 0.644. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and human resource management and development) is confirmed. Gudarzi (2008) argued that there was not a significant correlation between managers' creativity and their age. According to Sborn, there is no relation between creativity and age. This means that any person of any age with average intelligence quotient can be creative. In contrast, Alavi (2003) concluded that there was a significant correlation between creativity and age.

Seventh Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and process innovation. According to results, the correlation was calculated at 0.679. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and process innovation) is confirmed. In a research study titled "knowledge management model in the distribution ring of supply chain, handling and logistic", Seyed *et al.*, (2009) presented a knowledge management model in the distribution ring of supply chain, handling and logistic. This model is aimed at reducing logistic, purchase, distribution and restoring costs. The presented model was implemented in a food distribution organization and results were evaluated.

Eighth Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and quality results. According to results, the correlation was calculated at 0.810. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and quality results) is confirmed. In their research titled "ex post facto research of the service quality in Islamic Azad University", Gorji *et al.*, (2010) concluded that there was not a deep gap between the current and appropriate situation of service quality in all three branches and low quality services were offered in all. Using, t-test, they also determined that there were significant differences between the current and appropriate situation of service quality in all three branches.

Ninth Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and customers' satisfaction. According to results, the correlation was calculated at 0.692. As it is smaller than the significance level 0.05 ($0.000 < 0.05$), the hypothesis (correlation between knowledge management and customers' satisfaction) is confirmed. Sadeghi (2007) stated that the higher creative people are, the more motivated they would be in showing innovation in their jobs. As research shows that creativity should be acquired and people's creativity is developed by training and acquainting with creativity tools and techniques, people's creative insights should be strengthened in order to improve innovation in plans, articles and services. Previous research also reveals that the organizational culture has a strong effect on employees' innovation.

Tenth Secondary Hypothesis

Regarding the analyzed data, we used Pearson correlation to study the relationship between knowledge management and organizational innovation and between knowledge management and the quality of services. According to results and the following regression relations, this result agrees with results achieved by the following research studies. The relationship between organizational culture and the

Research Article

motivation of applying innovation has been widely studied. Studying 201 companies in South Korea, Škerlavaj et al. (2010) found out that the organizational culture highly affects employees' innovation.

Suggestions

1. According to results, as researches' creativity affects in their motivation to apply innovation at workplace and regarding the fact that creativity should be acquired, organizations are recommended to raise their employees' creativity in order to develop their innovative capacity and motivate them to be innovative at workplace.
2. Organizations have to do something to increase their employees' innovation and creativity and the quality of services. As most studied people are university educated ones, decision-makers should take steps toward improving creative and entrepreneurial thoughts to develop more entrepreneurship and innovation in research jobs.
3. Schools and universities are suggested to design lessons and learning resulting in creativity and innovation in people.
4. As the effect of knowledge management on innovation and the quality of services was studied here, people's engagement in innovative job plans and the effect of training on innovation should be more emphasized. It is also suggested that other research and innovative organizations, universities and similar settings do the same work to achieve more comprehensive results.
5. Regarding the role of cultural factors in Iran, researchers are recommended to normalize and localize measuring tools and evaluate innovation and the quality of services in working setting to do more effective research.

ACKNOWLEDGEMENT

We are grateful to Islamic Azad University, Marvdasht branch authorities, for their useful collaboration.

REFERENCES

- Amiri K (2007).** *An Investigation on the Structural Differences of Noble and Agile Production in Supply Chain, Auto and Affinity Industries Engineering* **50**.
- Bukman BK and Morgan RM (1998).** The Role of Existing Knowledge in New Product Innovativeness and Performance. *Journal Decision Sciences* **34(2)** 58-63.
- Javedani N, Jalali A and Gharhi A (2009).** Evaluation models of the maturity of knowledge management, *Articles of Innovation and Technology Management Congress* 1-21.
- Mahmoudi R (2000).** Effectively applying human resources. *Journal Tadbir* **11(2)** 24-29.
- Musakhani M (2010).** Presenting a model for evaluating the level of organizations' preparation in knowledge management. Iran Statistic Center 4.
- Rony D and Evans S (2006).** KM Your Way to CMMI. *Journal of Knowledge Management* **10(1)** 69-80.
- Saeedi D (2010).** Relationship between creativity and personality traits. *Journal Educational Innovation* **3(7)** 11-23.
- Silwiuo A (2006).** *An Investigation of Knowledge Management Implementation Strategies Proceedings of SAICSIT*.
- Soltani A (2009).** Role of human resource development in employees' job safety. *Journal Tadbir* **1(5)** 25-36.
- Tivana J (2000).** *Total Productivity Management* (Mc graw-hill Company).
- Wang J (2014).** Knowledge integration and innovation: Securing new product advantage in high technology industry. *Journal of High Technology Management Research* **16(2)** 121-135.
- Wilson L (2003).** *Applying Knowledge Management: Techniques for Building Corporate Memories* (Morgan Kaufmann Publishers).
- Wong L (2004).** An empirical investigation of knowledge management and innovative performance: The case of alliances. *Journal Research Policy* **38(9)** 358-368.
- Yusefi A, Sadeghfayzi J and Soleymani M (2011).** Creativity and Innovation in Human Sciences. *Journal of Research Policy* **3(5)** 29-51.