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## Study of factors contributing to knowledge management (KM) success in non-governmental and support organizations of Guilan province

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**Key words:** Organization environment, Individual characteristics, KM factors, IT infrastructures, Cultural factors, Implementation, knowledge management.

### Abstract

In order to survive in today's highly competitive market, organizations need to create new knowledge, distribute it and turn it into products and services. In order to achieve this goal, the knowledge inside an organization must be managed. By purpose, the present paper is an applied study and is conducted in descriptive (non-experimental) method, emphasizing on causal model. Data collection is done through field study. The statistical population is consisted of employees of non-governmental and support organization of Imam Khomeini relief foundation, among whom, 182 employees are selected as the statistical sample. The data is collected using the questionnaire by Salavati (2011), through which the employees' responses have been gathered and analyzed using SPSS19 and Lisrel8.2 software. The results of this study indicated that organization environment influences the implementation of knowledge management, knowledge management factors, and organizational characteristics. Also organizational and individual characteristics effect implementation of knowledge management. Knowledge management factors also effect implementation of knowledge management. IT infrastructures effect implementation of knowledge management and KM factors. Also cultural factors influence implementation of KM. In the end, based on conclusions of this study are put forward for future application.

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## Introduction

Until the end of 19<sup>th</sup> century, in order to increase their market value and growth speed, organizations relied on their tangible assets. However, recent developments such as globalization, competition, increase in customers' demands and number of suppliers and also fast speed of technologic advances have given knowledge a more meaningful role as a strategic growth in order for organizations to remain in the competition (Shahbandzadeh & Jafarpour, 2012: 3). Knowledge management as a managerial style, refers to attempts to systematically discover, create, make accessible, and utilize intangible assets and reinforce learning culture and knowledge sharing inside an organization. KM emphasizes on creating value, and means to manage the existing knowledge and increase the capacity to create new knowledge and innovation. Today, the situation and organizations' competitive atmosphere has become more complex and unstable. Constant changes in knowledge have also created a new imbalance for organizations. Endless stream of knowledge has put markets in an ever-changing condition which calls for constant changes in organizations (Hedjazi *et al.* 2013: 55). Knowledge management as a managerial style, refers to attempts to systematically discover, create, make accessible, and utilize intangible assets and reinforce learning culture and knowledge sharing inside an organization. KM emphasizes on creating value, and means to manage the existing knowledge and increase the capacity to create new knowledge and innovation (Niaz-azari & Amoui, 2013: 95). Today, managers are well aware of the importance of knowledge and its management in the organizations, and lots of them seek to implement KM in their own organization; because they have reached to the conclusion that through implementation of knowledge management they can use their intellectual capabilities to improve the performance of their organization. Yet they are at the same time afraid that they might not be able to implement KM in their organization and knowledge management becomes a failed attempt (Ardebili *et al.* 2012: 3). The aim of this study indicated that organization

environment influences the implementation of knowledge management, knowledge management factors, and organizational characteristics.

## Materials and methods

### *Problem statement*

In today's global economy, knowledge is known as the sole strategic source of competition edge. Customers' demands are always changing and organizations need to adapt themselves to this situation. In order to survive in modern highly competitive environment, organizations must create new knowledge, distribute it and turn it into products and services. To achieve this goal, knowledge within the organization should be managed (Salajegheh *et al.* 2013: 100). Knowledge as a solution has an effective role in reducing organizational costs. Having the correct and applicable knowledge, and using it in the right time and right place, put an organization in a higher position compared to its competitors. Although the value of knowledge is constantly growing, still some organizations face numerous problems because of ignoring the effect of knowledge management (Madininos *et al.* 2011: 136). Previous studies reveal that an organization's income increase is not realized only through supplying better products, intra-organizational knowledge and its management can also help an organization in having a bigger share in the market (Dianati-Deylami & Ramezani, 2012: 40). Knowledge management, the process of creating, storage, organization and application of knowledge serve to use collective knowledge as leverage, and improve responsibility and innovation (Vazifehdoost *et al.* 2014: 164).

### *Methods of KM*

The foundation of KM is knowledge workers who accommodate knowledge creation, dissemination and application. Therefore interaction between individuals can be a accommodative and determining factor in implementation of knowledge management. However, creation and development of knowledge does not necessarily lead to performance improvement in creation of value in an organization

(Hedjazi *et al.* 2013: 54). Failure of most of Iranian organizations does not lie in their lack of knowledge, but in their ineffective use of that knowledge. Organizational knowledge flows in two forms of explicit and tacit. Turning the tacit knowledge, which dwells in the minds of employees, into explicit knowledge is a difficult task. Yet tacit knowledge is the cause of success in most of pioneer organizations (Radfar *et al.* 2014: 34). Hence, with globalization and rapid changes in business, organizations rely on knowledge as a key element of success (Karkoulian *et al.* 2013: 51). Today, managers and researchers have acknowledged the importance of organizational knowledge in achieving and maintaining competitive edge (Pandey & Dutta, 2013). Reaching the goals of knowledge management requires implementation of KM in order to accommodate creation, retention and sharing of knowledge. Methods of KM implementation are constantly being improved and they are included in most of managers' agenda (Ghalmagh *et al.* 2012). On the other hand, during the implementation of KM, one must be aware of the factors which tamper with the execution of KM program or reduce its success. Some of the obstacles in front of implementation of knowledge management are: managers' incorrect understanding of KM, failure in adaptation of KM efforts to organization's strategic objectives, lack of open and free atmosphere for statement of opinions and new ideas, lack of motivation and confidence in KM etc. (Carneiro, 2012). Base on observations, incorrect understanding of obstacles against of KM implementation will lead to failure in most of the attempts to develop and utilize organization's knowledge resources; this in turn causes the frustration of organizational knowledge, destruction of organization's knowledge resources, and workforce inefficiency. In a situation like that the organization will face difficulties in keeping its competitive edge and innovation, and the survival of the organization would be endangered (Adnan *et al.* 2012). Since non-governmental and support organizations are assigned to enable and aid the community especially low-income families, and because raising the level of knowledge and knowledge

management in employees can help the organizations with their assignment, the present paper seeks to answer the following question: "what are the factors contributing to knowledge management success in non-governmental and support organization of Imam Khomeini relief foundation in Guilan province?"

#### *Emphasizing on causal model*

By purpose, the present paper is an applied study and is conducted in descriptive (non-experimental) method, emphasizing on causal model. Data collection is done through field study. In this study, first the main variable have been identified by investigating research literature and based on proposed problems; and then the hypotheses were formed based on the theoretical framework and the research concept model.

#### *Used Software*

Then, in order to assess the views of experts and professionals in Guilan province non-governmental and support organization of the relief committee the required data has been collected through field study and using questionnaires, and then converted into measurable points and analyzed using SPSS19 and Lisrel8.2 software.

Statistical population is consisted of all the elements and individuals within a certain geographical boundary (local or global) who share one or more characteristics. Population or world is the set of all cases which a researcher seeks to study (Sekaran, 2006). The statistical population in this study includes all managers, experts and employees of non-governmental and support organization of Imam Khomeini relief committee of Guilan province. Considering the size of the population, 182 of the personnel of the organization in Guilan province were being studied as the statistical sample; they have been selected using random sampling method.

#### *Sampling method*

Sampling is the process of selecting an adequate number of the statistical population, in a way that

through studying and understanding them, their characteristics can be generalized to the whole population (Sekaran, 2006). In light of the fact that the variables of this study are of qualitative nature and that the statistical population is limited, the 1-3 formula has been used to determine the size of the sample.

$$n = \frac{Z_{\alpha}^2 \cdot S_x^2 \cdot N}{e^2 \cdot N - e^2 + (Z_{\alpha}^2 \cdot S_x^2)}$$

n=sample size

$Z_{\alpha}^2$  =size of the studied variable based on standard normal distribution with  $\alpha$  uncertainty level.

$E^2$  =margin of error

$S_x^2$  =population variance (based on dependent variable and using a sample of 30)

N = size of the population=589

$$\frac{(1.96)^2 \cdot (0.57)^2 \cdot 589}{(0.05)^2 \cdot (589) - (0.05)^2 + ((1.96)^2 \cdot (0.57)^2)} = 182$$

#### *Theoretical basis and concept model*

Knowledge management is a consistent an systematic process which uses a proper combination of information technologies and human interaction to identify, manage, and share organization’s intellectual properties in order to increase its financial efficiency (Radfar *et al.* 2014: 35). In order to implement KM, some conditions need to be provided. These conditions which are called KM enabling or empowering include culture, structure, human resource and information technology. Human resource is one of the factors that must be prepared for successful implementation of KM. empowering human resources will lead to training of individuals who take responsibility in the process of knowledge management. Considering the importance of human resources in KM, researchers have become interested in increasing the employees’ capacity in organizations (Slajegheh *et al.* 2013: 101). IT as an effective factor in KM accommodates creation, sharing, storage and utilization of knowledge in organization. IT influences

KM in two aspects: 1- for an effective knowledge management appropriate technology must be considered and 2- technology help the effectiveness of KM (Khodaei-Matin, 2013: 205). Cultural elements are also another basic factor in implementation of KM. organizational culture is a set of values, beliefs, norms, understandings and procedures which individuals in an organization share. An effective organizational culture has an important role in preparing an appropriate environment for interaction and support of knowledge-oriented activities (Allameh *et al.* 2011: 1217). Also organization’s learning capacity, expansion of organization’s knowledge storage and sharing depend on the element of culture (Mills & Smith, 2011: 159). Another important factor in implementation of KM in organizations is the organization’s environment and characteristics. Organization’s structure can assist knowledge management to achieve its objectives in various aspects, since it can influence KM procedures and organization’s leadership and provide grounds for further interaction between individuals (Aujirapongpan *et al.* 2011: 186). In addition, organizational structure can accommodate knowledge transfer and creation of knowledge sharing culture in an organization. Therefore planning strategies in line with KM objectives and designing a suitable organizational structure is effective in successful implementation of KM (Khodaei Matin, 2013: 205). Every study needs a hypothetical framework. Hypothetical framework is a complete and logical network between variables which is produces through procedures such as interviews, observations, and study of subject and literature (Khaki, 2003: 163).

#### *Organizational environment*

It includes all the elements that exist outside the boundaries of an organization and have potential influence on the whole or a part of the organization, such as competitors, suppliers and producers of primary materials, business market, stock market, customers, clients, economic depression and rules and regulations (Tseng, 2011: 1343). It is measured on a Likert 5 point scale and includes indices such as

easy access to required knowledge, presence of systematic processes for collection and classification and omission of unnecessary information and display of required information, focus on education and employees' learning as a basic activity, employees' freedom to state their opinion, manager's assistance to employees during the time of trouble, employees' participation in decision making. Questions 26 through 31 are related to this variable (Salavati, 2011).

#### *Individual characteristics*

It is the qualitative and quantitative characteristics of human resources, especially their condition of age, education, skill, matrimony, personality, experience and etc. which can be perceived as an organization's strength or its weakness (Ranjan & Bhatnagar, 2008: 21). It is measured on a Likert 5 point scale and includes indexes such as knowledge creation as duty beside daily activity, educable and learner, knowledge sharer, interested in team work and participation in such activities, motivation for knowledge acquisition, dissemination and application, presentation of new opportunities for learning etc. Questions 7 through 12 are related to this variable (Salavati, 2011).

#### *Factors of knowledge management*

It includes all the events, strategies and knowledge procedures which create value for the organization (Tseng, 2011: 1343). It is measured on a Likert 5 point scale and includes indexed such as presence of a center in organization as a focal point of all knowledge-oriented activities in a way that conducts you toward the sources of knowledge, access to stored information in least possible time, coordination in acquiring knowledge and information outside organization in order to reduce redoing and duplication of work, presence of a team responsible for identification, display and storing vital organizational knowledge, tendency toward knowledge as a strategic source. Questions 21 through 25 are related to this variable (Salavati, 2011).

#### *Organizational characteristics*

It is a framework that managers use for appointment and synchronization of organization members' activity; the organization is built upon this basis which reflects its objectives and plans (Ban Moussa, 2009: 1374). It is measured on a Likert 5 point scale and includes indices such as flexible and non-hierarchical structure, appointment of a place for discussion and exchange of ideas, presence of official positions for management of KM-oriented activities, possibility of connection with outside in order to acquire extra-organizational groups' knowledge, and easy access to experts, professionals and organizational managers. Questions 13 through 17 are related to this variable (Salavati, 2011).

#### *IT infrastructures*

It infrastructure is defined as a combination set of hardware, software, network, facilities and etc. (consisted of alit technologies) in order to develop, test, present, monitor, control or support IT services (Tabarsa & Ourmazi, 2008: 46). It is measured on a Likert 5 point scale and includes indexes such as presence of required grounds and communication networks for easy and expansive access to intra-organizational information, presence of required grounds and communication networks for information and knowledge exchange with other organizations, presence of required grounds and communication networks for intra-organizational information and knowledge exchange. Questions 18 through 20 are related to this variable (Salavati, 2011).

#### *Cultural factors*

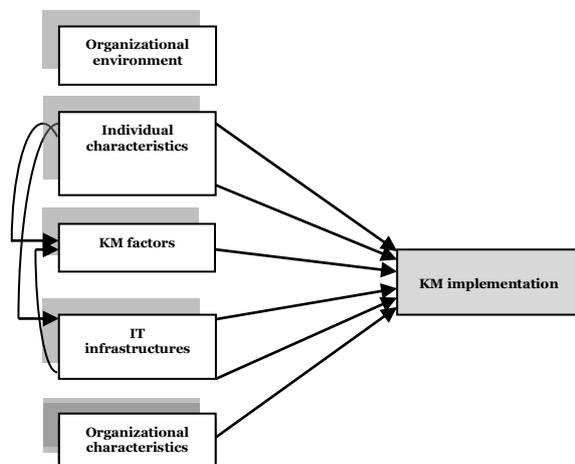
It reflects all the specification, characteristics, strength and weaknesses of an organization, and reveals its image in terms of employees' commitment to values, principles, beliefs, views and other related ideas (Yiing & Bin Ahmad, 2009: 62). It is measured on a Likert 5 point scale and includes indexes such as crating motivation for acquisition and application of knowledge, mutual trust between managers and employees, valuing knowledge and its holders,

flexibility toward new ideas, encouraging team work, employees evaluation and reward system's reliance on employees' participation in knowledge creation. Questions 1 through 6 are related to this variable (Salavati, 2011).

*Implementation of knowledge management*

It includes the processes of acquisition, capture and maintenance, creation, application and sharing of knowledge (Hong *et al.* 2011: 14424). It is measured on a Likert 5 point scale and includes indexes such as presence of a knowledge-based culture in organization, management's support of KM procedures, presence of IT to assist knowledge transfer and dissemination, presence of system that accommodates transfer of knowledge and skills, presence of a reward system and motivating employees to create, store and disseminate knowledge, employing a system of suggestions in the organization, and attention to knowledge management because of the competitive environment. Questions 32 through 38 are related to this variable (Nadjafbeigi *et al.* 2011).

After proper identification of the variables, a network of relation between variable must be codified in order to suggest and examine related hypotheses. The concept model for this study is interpreted from the one employed by Huang & Lai (2012), and is codified as bellow:



**Fig. 1.** Concept model for research (Huang & Lai, 2012: 26).

*Considering the research concept model, the hypotheses are as bellow*

*Research hypotheses*

Hypothesis 1- organizational environment affects KM implementation.

Hypothesis 2- individual characteristics affect KM implementation.

Hypothesis 3- KM factors affect KM implementation.

Hypothesis 4- organizational characteristics affect KM implementation.

Hypothesis 5- IT infrastructures affect KM implementation.

Hypothesis 6- cultural factors affect KM implementation.

Hypothesis 7- organizational environment affects KM implementation.

Hypothesis 8- organizational environment affects organizational characteristics.

Hypothesis 9- IT infrastructures affect KM factors.

*Tools of data collection*

Questionnaire is one of the common tools of data collection in studies. A questionnaire is a set of questions which research subjects are required to answer and state their opinions about. In the present paper, in order to assess the views of professionals and experts in the mentioned organization, a questionnaire using a Likert 5 point scale (from strongly disagree to strongly agree) has been used. The results of the questionnaire's reliability are demonstrated in table 2.

The Chronbach's alpha obtained for each variable is greater than 0.7 which testifies to the reliability of the questionnaire used in this study.

**Table 2.** Reliability of the questionnaire’s items.

| Row | Variable                      | Cronbach’s Alpha |
|-----|-------------------------------|------------------|
| 1   | Cultural factors              | 0.84             |
| 2   | Individual characteristics    | 0.85             |
| 3   | Organizational characteristic | 0.81             |
| 4   | IT infrastructures            | 0.89             |
| 5   | KM factors                    | 0.88             |
| 6   | Organizational environment    | 0.81             |
| 7   | KM implementation             | 0.89             |

*Methods of data analysis*

In order to investigate the relation between parts of the model, structural equation models have been employed. Structural equation models also have been used for confirmatory factor analysis. To analyze the data and examine the research hypotheses structural equation models have been used. Structural equation modeling is a strong multi-variable technique of multi-variable regression family; in more accurate words, it is an expansion of general linear model which helps the researcher to examine a set of regression equations at the same time. Structural equation modeling is a comprehensive statistical approach to examine the hypotheses about the relation between observable and latent variables. It is also known as structural covariance analysis, causal modeling and lisrel, however it is commonly called structural equation modeling, or SEM. This term refers to a set of general models which include confirmatory factor analysis, classic simultaneous structural model, path analysis, multiple regression and other statistical methods. After the model is determined, there are numerous ways to test the model’s goodness-of-fit.

*Normality test*

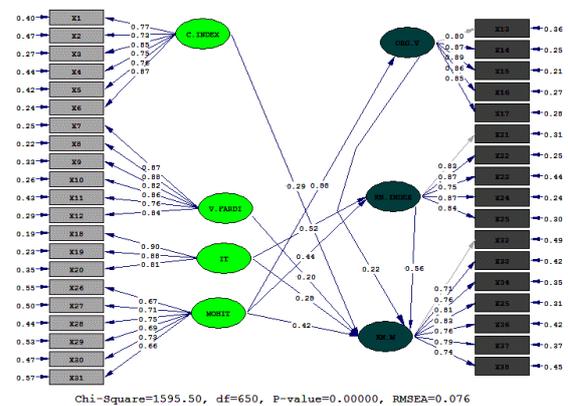
Tables 3 demonstrate that the level of significance for the variables of this study in Kolmogorov-Smirnov test are above 0.05. Therefore the variables in the studied sample have normal distribution.

**Table 3.** Kolmogorov-Smirnov test for the variables of the study.

|                                | Test statistic | Level of significance |
|--------------------------------|----------------|-----------------------|
| Cultural factors               | 1.104          | 0.174                 |
| Individual characteristics     | 0.934          | 0.348                 |
| IT infrastructure              | 1.194          | 0.063                 |
| Organizational environment     | 0.805          | 0.536                 |
| Organizational characteristics | 0.983          | 0.289                 |
| KM factors                     | 0.907          | 0.383                 |
| KM implementation              | 0.905          | 0.386                 |

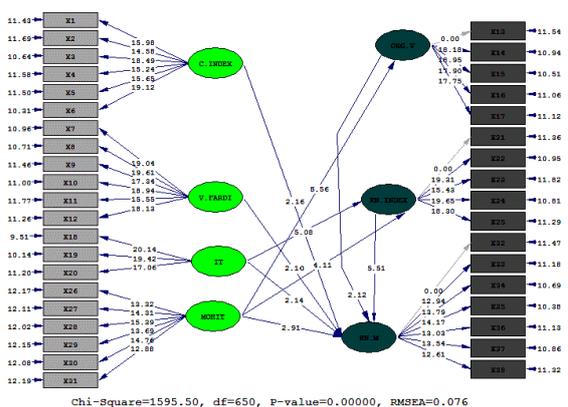
*Evaluating the model in standard mode*

The fig. below demonstrates the relation between the variables.



**Fig.2.** Model evaluation test (standard mode).

*Evaluating the model’s significance values*



**Fig.3.** Model evaluation test (significance values).

In this mode, the significance of the relation between variables of the study can be evaluated. In this instance, only values outside the interval (-1.96, 1.96) are

considered significant. In other words, if in t-test a value falls between -1.96 and 1.96, it will insignificant.

After estimation of the parameters for a model it needs to be determined how much the data is fitted into the model, that is, to what extent the model is

supported by the sample data. There are some tests to determine how well the model describes the observable relation between the measurable variables. The table bellow indicated different indices of goodness-of-fit and significance of the model.

**Table 4.** Model's significance and fit indices.

|                      | Index name                                  | Abbreviation         | Fit if it is            | The assessed level in the model | Result    |
|----------------------|---|----------------------|-------------------------|---------------------------------|-----------|
| Significance indices | The Root Mean Square Error of Approximation | RMSEA                | Less than 0.1           | 0.076                           | Confirmed |
|                      | Chi-square to the Degree of Freedom         | $\frac{\chi^2}{d_f}$ | Equal or smaller than 5 | 2.45                            | Confirmed |
| Fit indices          | Goodness-of-Fit index                       | GFI                  | Greater than 0.8        | 0.89                            | Confirmed |
|                      | Non-Normed Fit index                        | NNFI                 | Greater than 0.8        | 0.93                            | Confirmed |
|                      | Normed Fit index                            | NFI                  | Greater than 0.8        | 0.90                            | Confirmed |
|                      | Comparative Fit Index                       | CFI                  | Greater than 0.8        | 0.95                            | Confirmed |
|                      | Incremental Fit Index                       | IFI                  | Greater than 0.8        | 0.95                            | Confirmed |

Considering the obtained results it can be said that the model is confirmed in terms of significance and fit indices.

*Path analysis results*

As the software output shows the standard estimations and significance values, the bellow table

demonstrates the results of the model's variables indirect effects.

The above calculations indicate that IT infrastructures via KM factors have the greatest effect on KM implementation in the organization.

**Table 5.** Results of path analysis of the structural model.

| Indirect effect   | Path   |                |
|---|--|----------------|
| (0/52)(0/56) = 0/29<br>(5/08)(5/51)   | IT infrastructures ← KM factors ← KM implementation              | Indirect paths |
| (0/44)(0/56) = 0/25<br>(4/11)(5/51)   | environment ← KM factors ← KM implementation                     |                |
| (0/88)(0/22) = 0/19<br>(8/56)(2/12)   | environment ← organizational characteristics ← KM implementation |                |
| 0/28<br>(2/14)  | IT infrastructure ← KM implementation                            | Direct paths   |
| 0/20<br>(2/10)  | individual characteristics ← KM implementation                   |                |
| 0/29<br>(2/16)  | cultural factors ← KM implementation                             |                |
| 0/42<br>(2/91)  | environment ← KM implementation                                  |                |
| 0/56<br>(5/51)  | KM factors ← KM implementation                                   |                |
| 0/22<br>(2/12)  | organizational characteristics ← KM implementation               |                |
| Attention: the numbers on top are path coefficients, and the numbers on the bottom are path significance t values |  |                |

Also KM factors have the greatest direct effect on KM implementation in the organization.

### Results and discussion

In this section, the results of deductive methods in the form of structural equation modeling are presented.

#### *Hypothesis 1. Organizational environment affects KM implementation*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 2.91; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of organizational environment on KM implementation is measured 0.42.

#### *Hypothesis 2. Individual characteristics affect KM implementation*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 2.10; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of individual characteristics on KM implementation is measured 0.20.

#### *Hypothesis 3. KM factors affect KM implementation*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 5.51; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of KM factors on KM implementation is measured 0.56.

#### *Hypothesis 4. Organizational characteristics affect KM implementation*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 2.10; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of organizational environment on KM implementation is measured 0.20.

#### *Hypothesis 5. IT infrastructures affect KM implementation*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 2.14; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of IT infrastructures on KM implementation is measured 0.28.

#### *Hypothesis 6. Cultural factors affect KM implementation*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 2.16; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of cultural factors on KM implementation is measured 0.29.

#### *Hypothesis 7. Organizational environment affects KM factors*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 4.11; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of organizational environment on KM factors is measured 0.44.

#### *Hypothesis 8. Organizational environment affects organizational characteristics*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 8.56; and since this number is outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient, the effect of organizational environment on organizational characteristics is measured 0.88.

#### *Hypothesis 9. IT infrastructures affect KM factors*

Considering the significance value of the research model, the obtained t-statistic between the two variables equals 5.08; and since this number is

outside the interval (-1.96, 1.96), the hypothesis is confirmed. Also considering the standard coefficient,

the effect of IT infrastructures on KM factors is measured 0.52.

Review of the literature

Table 1. Research history.

| Researcher                     | Year | Title   | Results  |
|--------------------------------|------|---|--|
| <b>A: foreign studies</b>      |      |   |  |
| Huang & Lai                    | 2012 | Study of factors affecting KM implementation  | Results indicated that organizational environment, individual characteristics, KM factors, organizational characteristics, IT infrastructures and cultural factors influence KM implementation.  |
| Kuan                           | 2005 | Key elements affecting KM implementation in small and medium companies  | In this study, fundamental elements fo KM implementation were identified. It was also revealed that other infrastructural and key variables including IT, motivative assistance, organizational infrastructures and activitie have positive effect on KM.  |
| Hung <i>et al</i>              | 2005 | Effective factors in acceptance of KM in pharmaceutical industry  | Results indicated that 7 factors of knowledge-oriented structure and strategy, organizational culture, IT infreastructure, environment and culture of learning, top management’s commitment, evaluation of education and temwork, employees education and participation, are the basic elements for implementation of KM.                          |
| Khalifa <i>et al</i>           | 2003 | Factors influencing KM programs   | The results indicated that organizational factors such as organizational culture, KM strategy and information technology affect implementation of KM.  |
| <b>B: native studies</b>       |      |   |  |
| Rezaei Kalantari <i>et al.</i> | 2014 | The relation between organizational culture and KM in Azad-e-Eslami university, Sari branch, and determining the impact of each component | The results indicated that there is a correlation between organizational culture and KM. also there is correlation between aspects of organizational culture such as organizational participation, organizational flexibility, organizational mission, organizational compatibility and KM.  |
| Mahmoudi <i>et al.</i>         | 2013 | Feasibility study of implementation of KM system in Tehran Azad-e-Eslami central branch, and presenting a model.                          | The results of this study indicated that in this university condition of components of human resources is desirable, condition of organizational structure and organizational culture is at medium level, and condition of information technology is not desirable. Between the views of professors and employees concerning IT and organizational |

| Researcher                 | Year | Title  | Results  |
|----------------------------|------|--|--|
| Emamdoust & Tabari         | 2012 | Presenting a concept model for implementation of KM in governmental organizations (case study: Golestan province administration of labor and social affairs) | structure, there are no significant differences. Also there are different views on human resources and organizational culture and KM.<br>The results showed that concerning human resources and technology, there are no suitable grounds for implementation of KM in Golestan province administration of labor and social affairs. However concerning organizational structure and organizational culture, the conditions are good. |
| Ardabili <i>et al.</i>     | 2012 | Effect of extra-organizational elements in implementation of KM in Pyam-e-Noor university  | The results revealed that political, technological and cultural elements influence the implementation of KM.   |
| Nadjaf-beigi <i>et al.</i> | 2011 | Designing the required infrastructural pattern for implementation of KM in organization  | The results indicated that organizational culture revolving around learning culture, trust and collaboration, and organizational structure based on decentralization and unofficialization, also IT support and motivation of employees are the most important infrastructures required for implementation of KM in the studied governmental organizations.  |

**Conclusion**

Considering the presented analysis in this study, based the path coefficient of 0.42 it can be concluded that organizational environment affects implementation of knowledge management. Considering the presented analysis in this study, based on the path coefficient of 0.20 it can be concluded that individual characteristics affect implementation of knowledge management. Considering the presented analysis in this study, based on the path coefficient of 0.56 it can be concluded that KM factors affect implementation of knowledge management. Considering the presented analysis in this study, based on the path coefficient of 0.20 it can be concluded that organizational characteristics affect implementation of knowledge management. Considering the presented analysis in this study, based on the path coefficient of 0.28 it can be concluded that IT infrastructures affect implementation of knowledge management. Considering the presented analysis in

this study, based on the path coefficient of 0.29 it can be concluded that cultural factors affect implementation of knowledge management. Considering the presented analysis in this study, based on the path coefficient of 0.44 it can be concluded that organizational environment affects KM factors. Considering the presented analysis in this study, based on the path coefficient of 0.88 it can be concluded that organizational environment affects organizational characteristics. Considering the presented analysis in this study, based on the path coefficient of 0.52 it can be concluded that IT infrastructures affect KM factors

*Research limitations*

During the process of data collection and achievement of results, each researcher faces problems that need to be identified and solved. Conduction of this study had its own problems as well. The following are some of the major ones:

1. Limited library and field information about the variables.
2. The results obtained in this study pertain to a specific time frame when the data had been collected. As the time passes, the results may vary.
3. Unwillingness of some experts to share a part of their time to participate in answering the questionnaires and face-to-face interviews.
4. Devising an appropriate strategy for application of the factors contributing to KM success in non-governmental and support organization of Imam Khomeini relief committee of Guilan province.

### *Suggestions*

#### *Suggestions based on conclusions*

Based on the research literature, methodology, data analysis, and results this study indicated that organizational environment affects KM implementation, KM factors, and organizational characteristics. However the item "Employees' freedom of expression" obtained the least average score. Therefore the managers are advised to give their employees the freedom to state their ideas and opinions. For this purpose, the following suggestions are put forward:

1. Managers' concern with ideas, beliefs and opinions of their employees.
2. Accommodating horizontal connections and interactions between employees of the organization
3. Facilitating the employees' participation in determining the organization's objectives.
4. Allowing employees to state their opinions on their performance evaluation.
5. Allowing employees' creativity and personal judgment in their work process.

The results indicated that individual characteristics affect knowledge management implementation. However the item "assigning a space for discussion and exchange of ideas" obtained the lowest average score. Therefore the following suggestions are put forward:

6. The employees are given the authority for solution of problems during their work.
7. Individuals are given vocational identity, in a sense that they are given the opportunity to carry out a whole task so that they can program, execute and evaluate on their own.
8. Employees are made aware of their work results and receive feed backs from their supervisors, co-workers and clients about their duties and performance.
9. Allowing employees to participate in decision makings related to their job and vocational duties such as choosing the methods of execution and planning.

The results indicated that factors of knowledge management affect implementation of knowledge management. However the factor "access to the stored data in least possible time" obtained the lowest average score. For this matter the following are suggested:

10. For intra-organizational informatics, local area networks (LAN) are installed and necessary strategies are chosen.
11. Launching websites and databases and developing them using up to date software.
12. Creating databases with regard to needs of the organization and information applicants using (Oracle, MS SQL, etc.)

13. Preparing fast search engines for retrieval of information in sites and databases.

14. Preparing connectivity software interfaces in order to exchange information in forms of text, pictures, and audio-visual forms and etc. Using up-to-date technologies organizations can easily send statistics and information in form of computer files to other centers.

The results indicated that IT infrastructures affect both KM implementation and KM factors. However the factor “presence of grounds and required communication networks to exchange information and knowledge with other organizations” obtained the lowest average score. Therefore the following is suggested to the managers:

15. In order to communicate with centers and organizations outside the country and using their knowledge, programs and plans need to be prepared for launching and use of global networks (WAN).

The results indicated that cultural factors affect KM implementation. However the factor “reward and employees evaluation system based on their participation in knowledge creation” obtained the lowest average score. For future improvements the following are suggested:

16. Reward payment systems in organizations must include the three features of capture, maintaining and motivation of the employees.

17. Payments need to be closely related to employees’ performance and based on their competence and capability, and monotony in payment must be avoided. For that purpose a comprehensive evaluation system seems crucial.

18. Meritocracy systems need to be established with the purpose of employing the most competent persons. Individuals need to be evaluated based on

their capabilities and by rules and regulation, and in case they deserved, be rewarded and promoted.

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