

Examining the Role of Knowledge Management in Empowering Sistan and Baluchestan University's Staff

Arbabi Sarjou Azizollah¹, Miri Nejad Elahe², Nakhaee Rad Zahra², Keivani Shirvan³

¹Pregnancy Health Research Center, Zahedan University of Medical Sciences, Zahedan, Iran; ²Information Technology management, University of Sistan and Baluchestan, Zahedan, Iran; ³Business management, University of Sistan and Baluchestan, urmia, Iran

Abstract

Knowledge management (KM) is one of the sub-branches of knowledge economy; it represents quite a new concept and method of management and can affect empowering staff. In this study, which is of a descriptive nature and employed survey method, we dealt with examining the role of KM aspects in empowering the staff of the University of Sistan and Baluchestan. The sample size consisted of 75 persons who were chosen among 250 personnel of the University of Sistan and Baluchestan. The instrument of collecting information was questionnaire, and in order to analyze data, SPSS Version 17 was used. Apart from the two indicators, knowledge transfer and KM facilities, the results of regression analysis showed that other indicators of KM, namely the culture of KM, knowledge maintenance, knowledge documentation, the culture of KM and knowledge maintenance have no significant effect on staff empowering.

Keywords: Knowledge management, empowering, staff, university, Management

Introduction

Organizations in the current economy recognize knowledge as a key economic resource and, therefore, it is considered important for sustaining competitive advantage. Needless to say, organizations must possess the right knowledge in the desired form and content under all circumstances.

Stances to be successful. The risks and uncertainties inherent in such dynamic environments have increased the importance of managing organizational knowledge (Rahimi, Arbabi Sarjou, Allameh and Aghababaei 2011)

One of the most important challenges that modern managers are facing is the failure to sufficiently making use of intellectual resources, mental faculty and potential capabilities of human resources available. In most organizations, staff's abilities cease to be used optimally and managers are unable to make their potential work. In other words, individuals may bring in creativity, innovation and further action, but these abilities may not be put into action properly in organizational environment. Thinkers spent the management of staff empowerment as one strategy influencing the function and optimization of manpower. Empowerment provides potential capabilities for exploiting the source of human abilities which have remained fairly inoperable. Once organizations incline to survive in this complicated and dynamic modern world, such energy needs to be harnessed and put into use. All of these factors together have made the process of empowering in our organization growingly important and essential (Lee, 2001).

Empowered employees give benefits to the organization and they know their jobs and life goal-based and their involvement directly is turned into continual improvement in the systems and processes of work place. In empowered organization, the employees with emotional and honor implement their best thoughts and innovations. In addition, they work with responsibility and prefer the organization benefits to their benefits. Thus, employees' empowerment is of great importance in the organizations. The question is that how the employees' empowerment of an organization is increased? One of the solutions of increasing the empowerment of employees from the new management view is KM in the organizations.

Today, researchers believed that knowledge is the most important organizational source and its correct management and operation can create sustainable

Corresponding author: Keivani Shirvan, Business management, University of Sistan and Baluchestan, urmia, Iran. E-mail: shirvan_keivani@yahoo.com

competitive advantage for the organization (Zakeri, 2012). Indeed, KM is a response to the serious need of the organizations to using knowledge source in the era in which knowledge is the most important capital or organizations. Today, in the advanced countries in the world, this issue is accepted that knowledge and using it is the most important factor that can distinguish the competitor organizations from each other leads to the growth or loss of the companies than their competitors (Rajayipour, 2012).

However, one of the realities is low consideration or relative weakness of people and Iranian organizations to using KM principles in their management trend. The production and achieving advanced and up to date knowledge to implement the great industrial and economic plans now are the serious needs of the country and KM can turn various experiences to sustainable empowerment (Zakeri, 2012).

In the era that is called knowledge era and knowledge organizations and learners are the foundations of sustainable development of the communities, KM is of great importance. Now, for development, only the economic, natural and human resources are not useful alone and if the main factor that is knowledge doesn't exist, no development is achieved. Now, the ability of using knowledge of some empowerment as intelligence and creating new solutions to meet the human needs have special position in the global system and knowledge and knowledge creation are the main principles of advance development in the world. The competitive advantage of the organization and communities is "knowledge" and the countries achieve victory by knowledge power (Alvani, 2010).

Knowledge is the capital by which other capitals can be used optimally. Knowledge is intelligent human being and distinguishes human being from other creatures. Knowledge capital is different from other market capitals as when this capital is created, it can be used by many people without reducing its value and it is not exclusive. Knowledge capital cannot be divided and when it is disseminated, we cannot make some people deprived and make them exception. It can be said that knowledge is valuable when it is disseminated and used. The effective management on knowledge capital in organization is the most sustainable source for development.

Regarding the importance of KM in the country, it can be said that besides the importance of knowledge in the current economy that is considerable, it led into the formation of important changes in business world, some cultural and structural realities in our country increased the necessity of considering KM (Rappaport, 1995).

This means that in the mass-production based economy, measuring the performance is relatively simple. For example, we can calculate production output and compare or evaluate with the past performance or models but in the knowledge-based economy, measuring performance is difficult (Khoshsim, 2005). The current organizations should be agile, smart and rapid. The complexity of the 21th century facilitated the revolution space and those who don't learn to be compatible and accept the changes are destroyed easily. Learning saves us and this is done by management of organizational knowledge. What cannot be measured cannot be managed.

In recent years, the organizations spent great amount of money on KM. The calculation of this investment is not easy but the calculation of its capital return as exact and correct is difficult. The present study investigated whether the investments were effective or not effective for the organization? If evaluate the entire KM and effectiveness, at first, it is a great work, thus we restricted the study scope and only investigated a part of KM (knowledge creation processes) and its effect on KM effectiveness.

Review of literature

KM

It is said that the concept of KM emerged from the concept of the learning organization. The concept of the learning organization was first introduced by Peter Senge (1995) through his work titled the Fifth Discipline (Rahimi, Arbabi Sarjou, Allameh and Aghababaei 2011).

KM is one of the sub branches of knowledge economy. KM introduces a new management method. This concept acts on turning the reasoning grades of the employees and organizing the internal useful forces of the employees- competition force and new value. KM considers the information link with information, information with activities and information with a person- to fulfill knowledge sharing (tacit and explicit knowledge) and is different from information management. The traditional functions of library as collection, processing, dissemination, storage, using the document information are used to provide service for the society. In knowledge economy, library as the treasure of human knowledge, sharing the knowledge advance and is the important communication ring in knowledge advancement chain. KM in the libraries should focus on research and knowledge development, creating knowledge base, knowledge sharing and exchange among the

library employees (as knowledge users), training the library employees, facilitating the explicit processing of tacit knowledge and fulfilling its sharing. In most of the definitions of KM, the process of using knowledge is referred more than others and less the knowledge creation as the main element is considered. However, KM can play an important role in the society if it is successful in knowledge creation and production (Alvani, 2010).

Some of the definitions are referred as:

- Turban considered KM knowledge creation and storing and its distribution as using it is possible in the organization.

- Baron considered KM a systematic and integrated approach for recognition, application and sharing in organized and unorganized experiences and specializations in the organization.

Empowerment

The term “empowerment” in concise Oxford dictionary is authority, giving power and ability. Specifically, it is giving authority and freedom to people to manage themselves and in organizational concept is changing the culture and bravery in creating and guiding an organizational environment. In other words, empowerment is designing and building the organization as people besides controlling themselves can accept more responsibilities. Empowerment among the intelligent, friendly and honest employees creates the conditions by which they control their work life and achieve the growth to accept more responsibilities in future (Qasemi, 2003).

Various definitions are presented about empowerment. Most of the authors agree that the main element of empowerment is giving freedom of action to the employees in their related job activities. Some of the definitions are as followings.

Empowerment of the employees is that they can develop all their abilities and knowledge and apply them to reach the personal and organizational goals.

Empowerment is the process of achieving continual improvement in organization performance that is done via creation and development of people influence and groups on all duties scopes and affect the employees’ performance and total organization performance (Babai& Khalili, 2002)

Empowerment is suggesting power to people. As each management method improving the autonomy feeling of people leads to the power of people. The empowerment of human resources means the creation of required capacities among the employees to make them enabled to create value added in organization.

Empowerment is creation the power consistent with the surrounding environment and it is based on four main factors.

- 1- Affective support of involved people in stressful affairs

- 2- Encouraging and giving positive feedback to them

- 3- Introducing the examples of successful and effective people to them

- 4- Attaining experience via successful performance of an activity

Thus, empowerment is the state of mind in which the employee with empowered mental states experiences the similar feelings as (Rasuli, 2006).

- 1- The control on work implementation method

- 2- Awareness to the work place

- 3- Responsibility to the results of work

- 4- Sharing in unit and organization performance responsibility

- 5- Equality in receiving the rewards of individual and collective performances

Based on the above items, empowerment of employees is the process in which the manager helps the employees that they gain required ability for independent decision making. This process is not only effective in people performance but also is effective in completion of their personality.

KM and its strategic role in empowerment of employees

In recent years, the growth of knowledge and information are rapid and now the present era is the information explosion era as 80% of the technology and knowledge results and 90% of technical information and knowledge in the world are produced in 20th century. While, in every five and half years, it is doubled and most of them get old in less than 4 years.

Despite new products, knowledge can lead into sustainable advantage. Finally, all the competitors bring the cost and quality of their goods to the good level of the market and quality level and prices of the pioneer companies but the companies using the KM and the enrichment of wealth progress and achieve a high degree of quality, innovation and efficiency as the company can benefit more profit and it continues as specific trend. Despite the materialistic capitals, that in case of using, their value is reduced, the value of knowledge capital is increased as it is used (Davenport, T., & Grover, 2001). The knowledge-based companies don’t lose their new thoughts and they create new thoughts and improve the performance level of their forces. The

KM activities focus on using gained knowledge as one of the most effective components of this management. In other words, total consideration of the KM is on the point that existing knowledge in organizations is applied to lead into the organization profitability. Unfortunately, the great importance of knowledge doesn't guarantee its implementation in organization activities. In this issue, the stages of measuring tacit knowledge and available skills should be considered. The combination of the daily duties with the knowledge-management related duties, support of top managers and using knowledge are effective for competition and increasing efficiency and lead into the creativity and innovation in employees, their empowerment and creation of a learning organization. Empowerment and sustainable development of the employees is the principle by which the quality of productions and services to customers are improved continually (Beikzade Marzbani, 2008).

It can be said that effective factors on empowerment of employees is information, knowledge and job skill by which KM is achieved. To provide this factor, the facilities to develop the job skills in organization, the grounds of effective and efficient training in organization and having technical and specialized information with the positions are useful.

Research hypotheses

Main hypothesis: The dimensions of KM are effective in empowerment of employees.

Minor hypotheses

- KM culture is effective in employees' empowerment.
- The facilities of existing KM are effective in employees' empowerment.
- Keeping knowledge and information of organization are effective in employees' empowerment.
- Transferring knowledge by employees is effective in employees' empowerment.
- Documentation of organization information is effective in employees' empowerment.

Materials and Methods

As the general purpose of the present study is the investigation of employees empowerment, descriptive-analytic and causal (ex post facto) was considered by the researchers. In terms of data collection

method for this study, survey method was applied and it is one of the field studies.

Statistical population and sampling method

The Statistical population of this study was all the employees of Sistan Baluchestan University as 250 people and based on the limitation of staffs and supervisor, 75 employees were selected as study sample. The sampling method of the study was non-probability and optional.

Data collection measures

In this study, a three part questionnaire was used. In the first section, there are some items about social features of the study sample including age, gender, and education and etc and in the second section of the questionnaire, employees' empowerment was presented.

The questionnaire had 37 items related to employee's empowerment variable. In the final section of the questionnaire, the items of 5 KM indices are considered. This questionnaire included 25 items. The items of the second and third part of the questionnaire were designed as five choice responses called Likert scale.

The reliability of the study measure in this study by Cronbach's alpha test in SPSS software was as followings:

The employees' empowerment questionnaire

Table 1- The reliability of the items of employees' empowerment questionnaire

| |
|-----------------------------------|
| Reliability Coefficients |
| N of Cases = 60.0 N of Items = 37 |
| Alpha = .9539 |

The above table showed that Cronbach's alpha was 0.95 and it showed the high reliability of the items of questionnaire.

The KM questionnaire

Table 2- Reliability of the items of KM questionnaire

| |
|-----------------------------------|
| Reliability Coefficients |
| N of Cases = 63.0 N of Items = 25 |
| Alpha = .9461 |

The above table showed that Cronbach's alpha was 0.94 and it showed the high reliability of the items of questionnaire.

Data analysis

In this section, the collected data are processed by SPSS software and are analyzed in two levels of description and determination. In description level, the demographic indices are calculated. In determination level, to evaluate the effect of KM indices on employees' empowerment, multi-variate regression test and step-wise method were used.

Results

The statistical demographic data

The following table showed the descriptive demographic statistical data of the members as 75 employees of Sistan and Baluchestan University as the present study statistical sample as it was in the questionnaire.

Table 3. The descriptive statistical demographic data of the study sample

| | | | | | | | |
|------|----------------|-------|-------|---------|-------------------|----------|--------------------|
| Sum | | | | Woman | Man | Quantity | Gender |
| | | 75 | | 31 | 44 | F | |
| | | 100% | | 41.3 | 58.7 | % | |
| Sum | Above 20 years | 16-20 | 11-15 | 5-10 | Less than 5 years | Quantity | Experience (years) |
| 75 | 8 | 10 | 7 | 18 | 32 | F | |
| 100% | 10.7 | 13.3 | 9.3 | 24 | 42.7 | % | |
| Sum | | | | Married | Single | Quantity | Marital status |
| | | 75 | | 62 | 13 | F | |
| | | 100% | | 82.7 | 17.3 | % | |

Hypotheses testing

In this section, we analyze the relations and effects of dependent and independent variables. As the hypotheses of the study followed relations beyond the correlation and causal relations of the

phenomena, regression tests were applied to evaluate this issue.

In regression test by Step wise method, a model was obtained to investigate the effect of KM indices on employees' empowerment.

Table 4. Regression and residual indices test in the model

| Model | Entered variables | Excluded variables | Method |
|-------|--------------------|--------------------|----------|
| 1 | Knowledge transfer | - | Stepwise |
| 2 | KM facilities | - | Stepwise |

Dependent variable: Employees empowerment

The above table showed the result of regression test that is explained later. The above table showed that based on regression analysis of two models in which two indices of 5 indices remained in the mod-

el and showed the significant effect of the variables on employees' empowerment. Based on the knowledge transfer and KM facilities are the only KM indices as residual in the regression model.

Table 5. A summary of regression test model

| Model | Coefficient of determination (R) | Square R | The adjusted coefficient of determination | Estimation standard error |
|-------|----------------------------------|----------|---|---------------------------|
| 1 | 0.652 | 0.425 | 0.417 | 16.92 |
| 2 | 0.694 | 0.482 | 0.468 | 16.17 |

Model 1: Constant and knowledge transfer index

Model 2: Constant and knowledge transfer index and KM facilities index

Dependent variable: Employees empowerment

The above table showed that the variables entered in the regression model determined 48% of empowerment variance of the employees

($R^2:0.482$). This showed that two remained indices in the model only determined half of the dependent variable.

Table 6. ANOVA test

| Model | | Sum of squares | Degree of freedom | Mean of squares | F | Significance |
|-------|------------|----------------|-------------------|-----------------|--------|--------------|
| 1 | Regression | 15271.43 | 1 | 15271.43 | 53.32 | 0.000 |
| | Residuals | 20621.55 | 72 | 286.41 | | |
| | Total | 35892.98 | 73 | | | |
| 2 | Regression | 17309.39 | 2 | 8654.69 | 33.066 | 0.000 |
| | Residuals | 18583.59 | 71 | 261.74 | | |
| | Total | 35892.98 | 73 | | | |

Model 1: Constant and knowledge transfer index
 Model 2: Constant and knowledge transfer index and KM facilities index
 Dependent variable: Employees empowerment

The above table showed the results of ANOVA test. This test showed that how much we can rely on the models or in other words, how the regression models are sig-

nificant. As the significance value for the test was smaller than 0.01, (significance: 0.000) showed significance of regression models (with 99% confidence interval).

Table 7. The coefficients and regression equation

| Model B | Non-standardized coefficients | | Standardized coefficients | | t | Significance |
|---------|-------------------------------|-------|---------------------------|------|------|--------------|
| | Standard error | Beta | | | | |
| 1 | Constant | 37.13 | 8.96 | | 4.14 | 0.000 |
| | Knowledge transfer | 3.72 | 0.51 | 0.65 | 7.30 | 0.000 |
| 2 | Constant | 30.64 | 8.89 | | 3.45 | 0.001 |
| | Knowledge transfer | 2.17 | 0.74 | 0.38 | 2.93 | 0.004 |
| | KM facilities | 2.50 | 0.89 | 0.36 | 2.70 | 0.007 |

Dependent variable: Employees empowerment

The above table showed that both knowledge transfer (significance: 0.000) and KM facilities (significance: 0.007) were significant at the level 99%.

While the error of other variables was above (0.05) and didn't enter the regression equation. Based on values B, regression equation table is as:

$$\text{Employees empowerment} = 30.64 + [2.17 \times (\text{knowledge transfer})] + [2.50 \times (\text{knowledge management facilities})]$$

Based on the obtained Beta, it can be said that the role of knowledge transfer in determining the dependent variable (employees' empowerment) was more than the KM facilities. As this value shows that for one unit change in knowledge

transfer, 0.38 in standard deviation of dependent variable, change is created. However, for one unit change in standard deviation, the KM facilities, 0.36 in standard deviation of dependent variable, change is created.

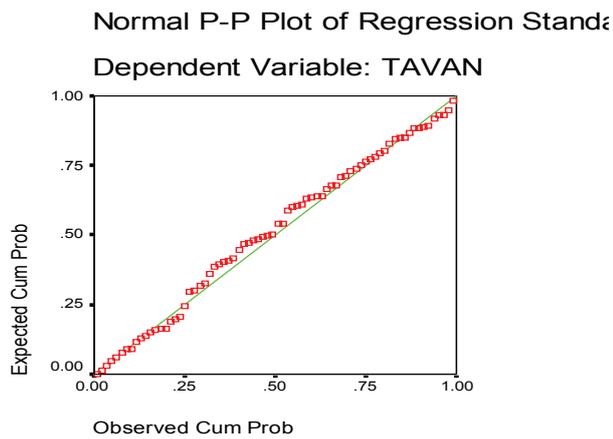


Figure 1: The regression line chart between the independent variables entered in the model and dependent variable

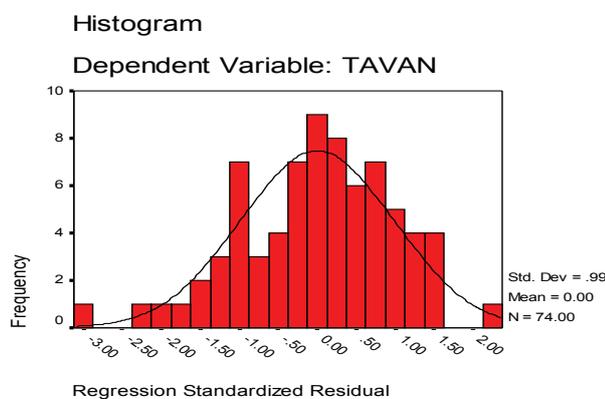


Figure 2: Normal distribution test of the variables entered in the model

The above two charts showed that there is high correlation between independent and dependent variables and this chart emphasized on the results of regression analyses and the increase or decrease of knowledge transfer or KM facilities were effective in increasing or decreasing the employees empowerment.

Also, figure 2 showed that statistical distribution was normal and this showed the accuracy of regression analysis. One of the pre-requirements of using regression analysis is normality of the frequency distribution of the variables.

The above table showed that in the final model of regression analysis, except two indices of knowledge transfer and KM facilities, other indices of KM had no significant effect on employees' empowerment and they are excluded of the regression model.

Discussion and Conclusion

In the current competitive world, the organizations follow the various management plans to achieve competitive advantage. In recent years, empowerment is considered as one of the important factors in successful management. The benefits of empowerment are known and we can refer to some items as employees' commitment, goods quality and services, efficiency, responsiveness, synergy and management power. The outcomes of empowerment of the employees can play important role in success of implementation of KM. The organizations by serious consideration of the dimensions and variables of employees empowerment including the development of work teams, providing the participation of the employees, commitment and support of top managers to empowerment of employees and implementation of KM, good leadership method and clarification of the goals, policies and organization mission in the view of the employees can provide the required ground for successful implementation of KM. This study had some limitations and one of the most important limitations is the lack of adequate trust of the respondents to the confidentiality of their responses in the questionnaire.

Table 8. The coefficients and regression equation

| | Model | Beta coefficient | t | Significance | Partial correlation Tolerance | Collinearity statistics |
|---|-------------------------|------------------|-------|--------------|-------------------------------|-------------------------|
| 1 | KM culture | 0.33 | 2.46 | 0.016 | 0.28 | 0.405 |
| | KM facilities | 0.36 | 2.79 | 0.007 | 0.314 | 0.43 |
| | Knowledge keeping | 0.165 | 1.22 | 0.22 | 0.143 | 0.431 |
| | Knowledge documentation | 0.043 | 0.39 | 0.69 | 0.047 | 0.69 |
| 2 | KM culture | 0.222 | 1.53 | 0.128 | 0.181 | 0.342 |
| | Knowledge keeping | 0.142 | 1.093 | 0.278 | 0.130 | 0.429 |
| | Knowledge documentation | 0.012 | 0.113 | 0.911 | 0.013 | 0.685 |
| Residual variables in model 1: Knowledge transfer | | | | | | |
| Residual variables in model 2: Knowledge transfer and KM facilities | | | | | | |
| Dependent variable: Employees empowerment | | | | | | |

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