

Studying the Relationship between Knowledge Management and Employee Empowerment

Case Study: Computer Research Center of Islamic Sciences

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Abstract: The current study seeks to figure out the relation between knowledge management and employee empowerment at the computer research center of Islamic sciences. This is an applied research in terms of objective while its method is descriptive and of correlation type. Statistical sample of research consisted of 179 persons. The data gathering instrument was a questionnaire distributed among the individuals following the assessment of its validity and reliability and the results were then analyzed. The Pearson correlation test was used to measure the relation between knowledge management and empowerment of human resources the results of which confirmed the positive relation between knowledge management and aspects of employee empowerment (including feeling Meaning, feeling autonomous, feeling Impact, feeling trust in others) while it disapproved the relation between knowledge management and feeling Competence. Moreover, Friedman test was used to rank the significance of hypotheses and questions. In the end, some recommendations are provided based on obtained results for managers and employee of organization as well as future studies.

Keywords: Knowledge Management, Employee Empowerment

1. Introduction

Rapid changes in global economy market are the main reason for establishment of novel approaches in workplaces which enforce organizations to review their management systems in order to survive in today's competitive turbulent economy. Advances in technology have increased and most consumers demand for more. To remain competitive, organizations require flexible policies whereby they may encourage personal responsibility and creativity while allowing individuals to be responsible for their own tasks since those employee are deemed as role players who influence the organization. They are managers who expect to become involved in decision makings of the organization. Therefore, employee empowerment is the main subject with regards to management and leadership performances and has enabled organizations to become more competitive. Empowerment is an important strategy for development of various organizations to achieve consistency with external variations (Goodarzi & Gaminian, 2010).

Considering the rapid changes in computer and information technology which serves as the main platform at the computer research center of Islamic sciences, empowerment of staff in the face of instantaneous variations in technologies is one of the best ways of compatibility with these changes. On the other hand, the dynamism in distribution of digitally published products calls for flexible staff and the employee are expected to become innovative and take responsibility of their own workplace. This would become possible through their empowerment for better practice of works. On the other hand, the main factors in survival of organizations are the quality of empowerment of human resources. In other words, the significant of human resources is way more than new technologies and financial resources i.e. the main difference between organizations is in knowledge and ignorance of employee and not in opulence and indigence. The role of efficient, knowledgeable and competent human resources in realization of organizational objectives is an undeniable fact. Human resource is the most important, most expensive and most valuable capital of an organization. Competent human resource may empower an organization. An empowered organization is an environment wherein staff from different groups collaborates with each other.

Empowerment of human resources as a modern inter-occupational motivational approach refers to set the potential forces of employee free while providing and creating opportunities for flourishing of talents, capabilities and competencies. Empowerment starts with change in beliefs, opinions and perspectives of employee such that

they have to realize that they possess the required competency and capability to successfully fulfill their tasks and to feel independence and liberty in their works to the extent that they find themselves influential in terms of affecting and controlling the outcomes of their jobs and come to realize that they are seeking a significant and valuable occupational objective while being treated with honesty and fairness (Ghorbani Zadeh & Khaleghi Nia, 2009).

The importance of discussing knowledge management results from exertion of power by knowledge in order to acquire stable competitive advantage. Renowned economic and business theoreticians have defined knowledge as the ultimate competitive advantage for new enterprises and the key to their prosperity and argue that knowledge is the only resource that is hard or even impossible to be copied or imitated. The computer research center which has taken the steps in digital publication as the first institute in Iran, may apply its experiences of more than 20 years as a means of competitive advantage over other institutes. On the other hand, technological advances have affected our evolution and entail appropriate, flexible, skilled and educated labor force. The tasks become increasingly complicated a part of which is due to technological changes and competition to gain more market share and revenue, but this technology has at the same time provided us with opportunities for unprecedented information sharing. Technology is one of the learning factors and helps professional teachers reconsider the learning process of individuals inside or outside classes.

Moreover, knowledge has become more and more transient and fugacious and the employee have often developed their career paths and created occupational changes for themselves. Many employee follow free agents and conclude job contracts or carry out counseling. Quitting jobs and replacement of employee with new and inexperienced staff has become a routine at the computer research center. Application of knowledge management would lead to resolution of problem, response to change and consistency with it, more flexibility, etc. hence, knowledge management in directly related to efficiency of today's organizations as knowledge plays the role of mediator in these organizations. Knowledge management provides the necessary opportunity for access to, preservation and improvement of human resources and acquisition of competitive advantage (Soorey, 2008).

According to the mentioned statements, computer research center is an organization with experienced human resource that was a pioneer in digital products manufacturing and now is in its mature period of time. This organization has to adapt itself with modern technologies. The main question is

that what shall this organization do? Empowering the human resource is an adequate way. In this research, knowledge management is considered as an important variable that affect employees' empowerment.

2. Research Literature

2-1. Knowledge Management

Knowledge management is a scientific discipline that encourages and strengthens the method of bilateral support for development, capturing, organizing and using information (Haney, 2003). Generally speaking, knowledge management may be defined as a series of processes that overlook the creation, dissemination and application of knowledge. This definition entails the creation of organizational and supportive structures, facilitation of members' relationships, application of technology tools in the networks, and explanation of knowledge (Gupta & Sharma, 2004).

2-2. Empowering the Employee

Empowerment refers to provision of sufficient freedom and information for individuals so that they may successfully carry out whatever they want instead of coercing them to do what we want (Votten & Cameron, 2002).

Involvement and contribution of numerous individuals in creation of a future prospect for the organization, establishing a strategy to achieve that goal and making attempts to realize this dream are referred to as empowerment (French, 1999).

Empowerment means emancipation and authorization of individuals to manage them while as an organizational concept, it means a change in culture and courage to develop and direct an organizational environment (Dastranj, 2009).

2-2-1. Aspects of Employee Empowerment:

Sprietzer (1992) has identified four aspects of empowerment in one of the best experimental studies conducted with regards to empowerment as the aspect of trust in others was also later on added to Sprietzer model. The five key aspects of employee empowerment are identified as follows (Votten & Cameron, 2002). For the managers to empower others, they must create these five features in them:

- Feeling significance: Appelbeum and Hanger believe that significance is an opportunity whereby individuals feel they are seeking important and valuable occupational objectives (Abdollahi & Naveh Ebrahim, 2007).
- Feeling Competence: competency or self-sufficiency refers to an individual's belief in his/her capabilities of successfully performing the delegated tasks. In case the task is such that the individual may fulfill the tasks with complete

confidence, it would have a positive effect on the self-sufficiency of that individual (Abtahi & Abesi, 2007).

- Feeling autonomous: Thomas and Velthouse define autonomy or authority as the independence and freedom of employee to determine required activities for fulfillment of tasks (Abdollahi & Naveh Ebrahim, 2007).

- Feeling Impact: A task is Impact when an individual considers it the cause of an effect in order to achieve assignment objectives. In other words, an individual may come to believe that fulfillment of occupational undertakings pays a major role in realization of determined objectives (Abtahi & Abesi, 2007).

- Feeling trust in others: the employee are confident that the operators of authority or wielders of power may not hurt or harm them and that they would be treated without any discrimination. Nevertheless, empowered individuals still hold a confidence in themselves or in other words they lack personal safety (Abtahi & Abesi, 2007).

2-3. Study of Conducted Research

Information, knowledge and skill in occupation are some of the effective factors on empowerment of employee. Bowen and Lawler consider empowerment as contribution of front line employee of organization in four elements of information, knowledge, reward and authority (Bowen & Lawler, 1992). The definition suggests that knowledge is one of the factors that lead to empowerment of employee. Therefore, individuals may be empowered through acquisition of knowledge and its management. Moreover, implicit knowledge management is gradually developed so that it takes time and the loss of time should be prevented. This should become an explicit knowledge to be transferred to other employee in order to empower them (Drucker, 1999).

Implicit knowledge as an important stimulant in creativity and innovation process plays an important role in prosperity of an organization in form of an organizational resource. Nowadays, all the taskforces and scientific teams reiterate that for organizations to compete in the business world, they should apply knowledge and science in their activities. Knowledge is a concept beyond data and information. Knowledge refers to a series of organized information, its relevant practical solution, results of its application in various decisions and its relevant instruction. Knowledge is the basis of skills, experience and expertise of an individual.

According to research findings, transfer of implicit knowledge and its transformation to explicit knowledge is directly related to participation of employee in decision making. Also, empowerment refers to a condition for motivation and fulfillment

of assigned tasks by boosting the self-efficiency feeling which eliminates the incapability in transfer of implicit knowledge (Ghorbani Zadeh & Khaleghi Nia, 2009).

Ghorbani Zadeh & Khaleghi Nia (2009) in a research called “study of relation between implicit knowledge and empowerment of employee in Payam Noor Universities of Mazandaran Province” concluded that there is a positive significant relationship between transfer of implicit knowledge on the one hand, and ability of employee to make decision, take responsibility of decision making, access to relevant tools to decision making and to finally take responsibility of decision outcomes on the other hand. Also, knowledge transfer would help the distribution of authority.

In a research called “study of effect of knowledge management processes on empowerment of employee in social security organization of Ardebil Province”, Rezaei Noor and Memshi (2013) suggested that there is a significant relation between knowledge management and empowerment of employee in this organization.

Kameli (2011) in his research called “study of relation between knowledge management process and empowerment of human resources in Iran Air

Tour Airline company” verified the positive relation between knowledge management (capturing, sharing, using of knowledge) and empowerment of human resources through application of Pearson correlation test.

In an article called “Relationship between the knowledge management processes and the administrative empowerment with the employees of the ministry of higher education and scientific research-jordan” Badah (2012) concludes that the statistical relationship indicates the knowledge management process and perception of employee empowerment. Considering the results, the researcher recommends creating of training courses and workshops for applied programs of knowledge management processes. Moreover, an effort is made to establish trust among employee to empower them and to promote self-in-relation among them.

Al Ajlouni underlines organizational confidence in his 2013 article called “The Relationship between Knowledge Management and empowerment of administrative on organization trust” and concludes that three factors of capturing, sharing and developing of knowledge increase organizational confidence.

2-4. Research Model

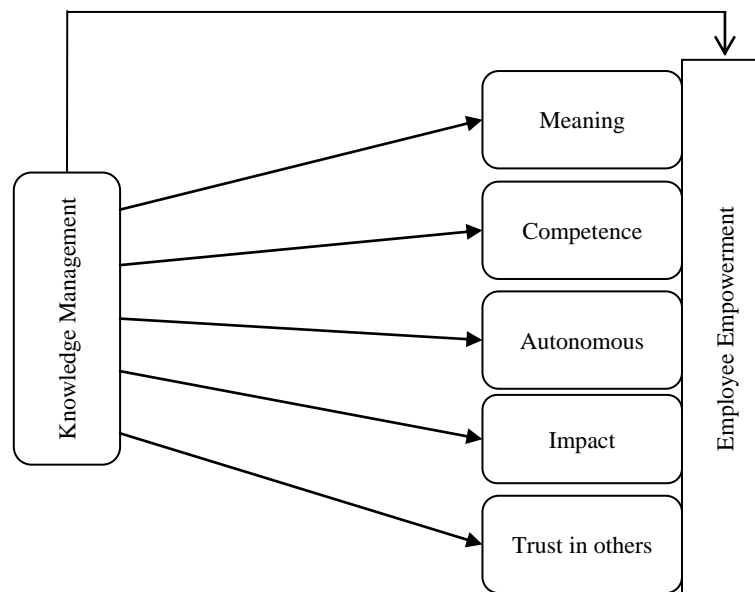


Figure 1. Research model adapted from Sprietzer-Mishra model (Votten & Cameron, 2002)

2-5. Research Hypotheses

The following hypotheses are proposed with respect to research model:

Main Hypothesis:

There is a significant relation between knowledge management and employee empowerment.

Secondary Hypotheses:

There is a significant relation between knowledge management and feeling Meaning.

There is a significant relation between knowledge management and feeling Competence.

There is a significant relation between knowledge management and feeling autonomous.

There is a significant relation between knowledge management and feeling Impact.

There is a significant relation between knowledge management and feeling trust in others.

3. Research Method

The current research is an applied one in terms of objective. The reason for conducting of applied research is to develop applied knowledge in a certain discipline. The research method is descriptive and of correlation type.

3-1. Statistical population and sample

Statistical populations in this research include the entire contractual employee of the computer research center of Islamic sciences which is 335 persons. The number of individuals enjoying sufficient and necessary information and required dispersion among the entire staff was estimated around 200 persons. To this end, a number of 200 questionnaires were distributed among employee out of whom 179 were acceptable.

3-2. Data Collection Instrument

Since the data collection method was a field study, the most conventional instrument in data collection was considered to be questionnaires.

Three questionnaires were applied as the main means of data collection. First, the demographic questionnaire is used to examine age, work experience, qualifications and workplace.

The following questionnaire designed in 24 questions is used to examine the knowledge management processes consisting of six micro-

scales proposed by Lawson measured based on the five-level Likert scale (Lawson, 2003).

In Likert scale, the respondent is not asked to merely express his/her agreement or disagreement with a case, but he/she is asked to choose from a number of answers and thus the intensity of agreement or disagreement is decided. Then the items are assigned scores and reliability of response is measured through the summation of scores of answers. One of the most important properties of this scale is that it expands the range of responses and provides more options.

The next questionnaire is designed in 15 questions to measure psychological empowerment of employee in the organization as well as its aspects which is measured according to five-level Likert scale and in accordance with Spritzer-Mishra model (O'Brien, 2010).

3-3. Reliability and Validity of Questionnaire

To ensure the validity of questionnaires, they were finally verified and approved by the university lecturers following a number of adjustments. Moreover, Cronbach's alpha is used to figure out the reliability of questionnaire, a method used to calculate the reliability of measurement instruments including questionnaires and tests of various features. Table 1 represents the number of questions related to each of the components used for measurement by Cronbach's alpha.

Table 1. Characteristics of questionnaire and its reliability

Aspect	Questions	Cronbach α
Knowledge of creation	1•2•3•4	0.76
Capture knowledge	5•6•7•8	0.75
Organizing knowledge	9•10•11•12	0.78
Knowledge store	13•14•15•16	0.74
Knowledge dissemination	17•18•19•20	0.80
Knowledge application	21•22•23•24	0.82
Meaning	27•26•25	0.84
Competence	30•29•28	0.80
Autonomous	31•32•33	0.79
Impact	34•35•36	0.75
Trust in others	37•38•39	0.86

3-4. Data Analysis Method

Following the collection of data through questionnaire and their classification, various statistical methods are used to analyze data. Statistical methods used in this research include descriptive statistical techniques such as frequency and deductive statistics techniques such as statistical hypothesis and variance analysis. SPSS software is used to analyze data. Pearson correlation coefficient is used to determine the correlation between knowledge management and employee empowerment. This tests is used to

describe the correlation between two variables measured by distance metric. Friedman test is also used to rank the empowerment aspects.

4. Research Findings

4-1. Studying Normality of Data

Parametric tests may be used to test the hypotheses in case of normal distribution of collected data and non-parametric tests are applied in case of non-normality. Here we discuss the results obtained from the aforesaid test in case of each of the dependent and independent variables.

Table 2. Normality test of data

	Knowledge Management	Empowerment
Number	179	179
Mean	17.02	18.67
SD	4.01	3
Kolmogorov-Smirnov Z	.714	.760
Asymp. Sig. (2-tailed)	.688	.610

Since the significance level for the two components is larger than 0.05 error, therefore frequency distribution of both independent and dependent variables is normal.

4-2. Examining Research Hypotheses

4-2-1. Correlation Test

Table 3. Correlation test results

Hypothesis	Independent variable	Dependent variable	Number	Sig	Correlation coefficient	coefficient of determination	Adjusted coefficient	Results
Main	Knowledge Mgt	Empowerment	179	0.000	.396	.157	.152	Rejected
1	Knowledge Mgt	Meaning	179	0.000	.291	.085	.080	Rejected
2	Knowledge Mgt	Competence	179	0.09	.090	.008	.003	Not Rejected
3	Knowledge Mgt	Autonomous	179	0.000	.356	.127	.122	Rejected
4	Knowledge Mgt	Impact	179	0.000	.398	.158	.153	Rejected
5	Knowledge Mgt	Trust in others	179	0.000	.292	.085	.080	Rejected

4-2-2. Regression Test

Table 4. Regression coefficients and straight-line equation of each hypothesis

Model		Not standard coefficients		Standardized coefficients	Statistics	Sig	Linear equation
		B	Standard Error	Beta			
Main	Constant	13.631	.902	.396	15.109	.000	Y = 13.631 + 0.296X
	Knowledge Mgt	.296	.052		5.737	.000	
1	Constant	3.016	.257	.291	11.747	.000	Y = 3.016 + 0.059X
	Knowledge Mgt	.059	.015		4.051	.000	
2	The assumption of a linear relationship between the variables was rejected.						
3	Constant	2.042	.275	.356	7.415	.000	Y = 2.042 + 0.08X
	Knowledge Mgt	.080	.016		5.076	.000	
4	Constant	2.079	.246	.398	8.460	.000	Y = 2.079 + 0.081X
	Knowledge Mgt	.081	.014		5.768	.000	
5	Constant	2.668	.255	.292	10.465	.000	Y = 2.668 + 0.059X
	Knowledge Mgt	.059	.015		4.058	.000	

4-2-3. Friedman Ranking

Friedman ranking test was used in order to rank the aspects of empowerment. Hypothesis test suggests that significant difference between the statuses of five empowerment rankings. Numerical value of

significance is zero and is lower than the standard significance level. Therefore, the H₀ hypothesis is rejected and thus aspects of empowerment are not similarly ranked.

Table 5. Friedman conclusion

Variables	Mean	Sig	Average Rank	Final Rank
Meaning	4.03	0.000	3.66	2
Competence	4.1	0.000	3.78	1
Autonomous	3.4	0.000	2.36	5
Impact	3.46	0.000	2.35	4
Trust in others	3.68	0.000	2.85	3

5. Conclusion and Discussion

Considering the significant relation between knowledge management and employee

empowerment as well as 40% correlation of knowledge management with employee empowerment and the fact that knowledge is of

great stance in the organization as a valuable source, managers must apply efficient knowledge-based management to flourish the concealed management in human resources whereby they may encounter the unconfident environment and on the other hand achieve long term organizational objectives.

Considering the research findings, the level of knowledge management at computer research center of Islamic sciences is below the average and the managers are recommended to support the knowledge management programs. It is recommended that in order to transfer knowledge among various departments, teams of managers, deputies, experts and staff should be formed so that they may discern the issues and provide solutions through convincing discussions which enables transfer of knowledge among individuals and development of employee capabilities.

Since 90% of employee hold degrees higher than Bachelor's and have the required aptitude for application of training tools for acquisition of knowledge, therefore the organization must be well-equipped to operationalize this potential. For instance, using video conferences instead of attending training classes decreases the time and money spent on these classes while increasing the experiences of staff.

Since 74% of employee have work experience of less than 10 years, the organization is recommended to pave the way for sharing of experienced by employee with more work experience. As the first secondary hypothesis is approved, it is better to do the following for improvement of significance:

Occupational cycle must be carried out so that the employee may realize through performing various jobs that which occupation is consistent with their virtues, beliefs and behaviors in order to feel Meaning.

Considering the proportionality of occupation with personality the directors' figure out the organizational positions compatible to personal values and behaviors.

Indirect control of staff must be carried out. Since the staff may not be initially emancipated, it is necessary that the employee be indirectly controlled and the form of this control changes over time as the staff become more seasoned, but the employee must be responsible for their tasks and duties.

Delegation of duties to taskforces causes the individuals to become innovative and make independent decisions and put the new ideas into test.

Individuals are involved in the organizational decision makings so that they may believe there is a need for change in workplace.

Stages and steps of work must be determined such that the staff regulates the speed, order, method and stages of their work.

The computer research center of Islamic sciences focuses more attention on inter-employee relations in order to build trust and establish honesty and serenity as the main elements of feeling of trust such that the employee perceive honesty and cordiality in the organization and make efforts to achieve it.

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