

Studying the Effect of Critical Success Factors of Knowledge Management on the Function of Educational Organizations Case Study: Yazd University

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ABSTRACT

The present study was conducted to investigate the effect of critical success factors of knowledge management on organizational functions with the factor of moderator in job satisfaction in State University of Yazd. In the study, using the factor analysis the indexes of dimensions of critical success factors of knowledge management, job satisfaction and organizational factors were determined. The a questionnaire of 27 questions was distributed among faculty members of State University of Yazd through group sampling method and the Cronbach's alpha coefficient for the variables (0.837) was in an acceptable level. The conceptual framework of the study was examined by structural equations modeling with the help of LISREL software. The results showed there is a positive and meaningful relation between job satisfaction and organizational function. But in the study the direct and immediate effect of critical success factors of knowledge management on organizational function was not confirmed.

KEYWORDS: critical success factors of knowledge management, job satisfaction, organizational function, structural equations modeling.

1. INTRODUCTION

In today's world, knowledge is the key to achieve and protect the competitive advantage [1]. Knowledge is a combination of experience, values, conceptual information and expertise views which provides a framework for estimating and combining new experiences and information [2]. According to Bose [3], management is the knowledge of leveraging the knowledge in an effective manner and in the direction of the organization's goals. Today, implementation of an effective knowledge management guideline and change of an organization into an organization based on knowledge is considered as the main term for successful organizations that are into a knowledge-oriented economy. Also in achieving the knowledge advantages some of factors play a key role that they are called critical success factors of knowledge management; achieving these factors is complicated and lacking of these factors is one of the main barriers of achieving the organization's goals [4]. These factors consist of different dimensions that in this research we examine 5 of them as the following:

- 1- Strategy and Leadership: one of the main challenges of successful implementation of knowledge management can be encouraging culture of accepting knowledge management and encouraging people to share knowledge. Knowledge management strategies, provide a framework that in that organization framework, will conduct targeted activities to lever the knowledge properties of the organization [5].
- 2- Systems and organizational structure: organizational structure includes organizational hierarchy, rules and regulations, and relation report [6]. In other words, structural dimension of knowledge management talks about norms and mechanisms of trust in organization [4].
- 3- Organizational culture: culture is a group of shared values, believes, norms, and methods by the organization members [7]. Culture is the main factor for success of knowledge management. Successful implementation of knowledge management requires organizational culture that encourage the members to share their knowledge [8].
- 4- Technology: in fact, the role of technology in knowledge management, is protecting the knowledge source, increasing accessibility and transferring knowledge and knowledge environment facilities and can provide individual, organizational and group cooperation. Also technology as an empowerment facility of knowledge helps the process of creating knowledge in scientific environments [9].
- 5- Human resources: individuals are creators of knowledge in organizations and a considerable part of knowledge is in their minds [10]. Individuals, the core of organizational knowledge creator, are the most important empowering for using knowledge management. Thus, to implement knowledge management plans successfully, considering the role and place of human is required. On the other hand having energetic and satisfied human resources is one of valuable resources of an organization and staffs function of an organization is because of their level of job satisfaction. According to Yang et al. [11], job satisfaction relates to desirable feelings of staffs to each and every piece of work they do and a level of their needs and wants will be met at work.

Also job satisfaction includes different dimensions as the followings:

1. Organizational factors like salary and premiums, promotion and equity in the organization [12].
2. Environmental factors like lightening, temperature, security system, suitable equipment, organization's technology [13].
3. Management factors like suitable relation with staffs, participating them in decisions, supervisor's desire for staffs' convenience [14], powerful and intelligent management [15].
4. Job and its content like job limitations, job's variety, job's level, engagement duration [16], encouraging job conditions [12].
5. Colleague's factors like positive and correct attitude [12], colleague's satisfaction from each other [17].
6. Personality factors like Emotional intelligence [18], high motivation, organizational commitment [17].

Job satisfaction influence on staffs' activity and in fact influence on organizational activity. Organizational activity means the outcomes from spending resources or combination of effectiveness and usefulness. Measuring the function means the process to quantify the results in a specific frame and in specific time limitation and comparing it with used resources [4]. Several researches have been done on effects of knowledge management and its critical success factors on functions and job satisfaction as the following:

Choi & Lee [19] investigate in industrial companies about relation between strategies of knowledge management including: human-oriented, system-oriented and knowledge management measurements including: creating knowledge (socializing, displaying, combining, internalizing) and organizational function including: investigating on financials and concluding that the human-oriented strategies are suitable for socializing and system-oriented strategies are suitable for combination. The combination of both strategies is effective in internalizing and displaying. Alignment of knowledge strategies can lead to functional empowerment. Choi & Lee [19] investigate in trading companies about relation between strategies of knowledge management and knowledge management measurements including: organizational structure (formalizing and centralization), organization culture (cooperation, trust, growth and learning), personnel (personnel's skills curve), technology (technology support) and organizational function including: financial (profitability), customers (total success, growth rate, market share, business extension in compare with competitors), growth and learning (creativity) and come to the conclusion that trust in organizational culture influences in all of knowledge creating processes. Technology influences in combination process. Knowledge creating process influences in organizational function. Chyang [20] investigated in research and development part of the manufacturing companies the relation between critical success factors of knowledge management including: human resources, cultural, structural and technical and organizational function including: customers and market (creativity, market position, difficulty of copying and adapting with the market needs) and came to the conclusion that human, cultural and structural factors influence on competitive advantage. Technology has a negative effect on competitive advantage. Jae Kim et al. (2007) investigated the relation between service function and customer's satisfaction and result that there is a relation of action and reaction between function and customer's satisfaction and improving service function will have a positive effect on increasing customer's satisfaction. Hu et al. [21] studied the hotel management industry the relation between critical success factors of knowledge management including: group work culture (supporting group work, group coordination and integration) and knowledge management measurements including: sharing knowledge (humanism, coexistence and fame) and organizational function including growth and learning (function of innovating services, behavior of innovating services, growth of new services) and concluded that sharing knowledge directly and indirectly through culture as a medial variable, group work will influence in function of innovating services. Dehghan et al. [22] studied the effect of senior managers' commitment on how they present services to staffs in organization commitment and job satisfaction and its effect on their function and concluded that management commitment influences in how they present services to staffs in organization commitment and job satisfaction, but just job satisfaction will have effects on staffs' function.

This study aims to present an integrated model for examining and displaying effect of critical success factors of knowledge management on job satisfaction and at last organizational function using previous researches. To estimate dimensions of organizational function an equal scoring card including financial aspect, beneficiaries' aspect, interior processes' aspect and growth and learning's aspect is used. In this regard first the relation between critical success factors of knowledge management, job satisfaction and at last organizational function is studied, then through survey method, using the collected information from each collage of State University of Yazd and using the structural equation modeling method, the model is tested.

2. METHODOLOGY

According to library studies three hypotheses are considered for the present research which will be examined

1. Between critical success factors of knowledge management and organizational function there is a positive and meaningful relation.
2. Between critical success factors of knowledge management and job satisfaction there is a positive and meaningful relation.
3. Between job satisfaction and organizational function there is a positive and meaningful relation.

The study is applied in terms of purpose; and is survey based in terms of administration. The study is administered sectional and to collect data questionnaire and library studies is used. To determine index for each dimension, related studies and expert's view is used. Also to explain the studied model three questionnaire were used to determine questionnaires' stability a sample of 50 people were selected. According to results from analyzing primary

questionnaires, questionnaire's stability of critical success factors with the Cronbach's alpha 0.831, organizational function with Cronbach's alpha 0.846 and job satisfaction with Cronbach's alpha 0.891 were determined. Our statistics society was faculty members of State University of Yazd and sample's size was calculated 191, using Morgan table. In this study a questionnaire was designed. To measure the validity of questionnaire from factor analysis a confirmation was taken from LISREL 8.7 software and the validity was confirmed. Also the validity of questionnaire content of critical success factors of knowledge management, job satisfaction and organizational functions were confirmed according to experts' views. The questionnaire of this study consists of 27 questions and the Cronbach's alpha for the variables were reasonable at 0.837.

In the study for building conceptual model to determine the relation between questionnaires of critical success factors of knowledge management, job satisfaction and organizational function structural equation model was used.

To test the data to be normal first the Skewness and kurtosis of data should be tested, that for each variable the according to table 1 were calculated:

It is observed that the skewness and kurisus of all of variables is between (+2 , -2), so all of the variables are normal. Also the mean for all of the variables is more than 3 and is in an acceptable level [4].

In order to process the model, first the variables and structural relations between them is defined according to the conceptual model of the research in LISREL software and finally the research model were confirmed that the details are in figures 1 and 2.

The fitness indexes model are presented in table 2. According to the results and comparing them with reasonable domain it can be said that all of the above fitness index models are placed in the reasonable domain so the structural models are confirmed.

Table 1: Check the normality of the variables

Critical success factors of knowledge management				
Normal distribution	Kurisu	Skewness	Mean	Variable
Confirmed	1.056	-1.017	3.8430	Leadership
Confirmed	-0.253	-1.625	3.3063	Organizational culture
Confirmed	1.002	0.234	3.1330	Technology
Confirmed	0.062	-0.042	-3.0215	HR
Confirmed	-1.012	0.322	3.2314	Organizational structure

Job satisfaction				
Normal distribution	Kurisu	Skewness	Mean	Variable
Confirmed	-1.132	0.325	3.0698	Chance of promotion
Confirmed	1.034	-1.782	3.7421	Type of occupation
Confirmed	-0.784	-1.981	3.6108	Paying system
Confirmed	-0.874	1.254	3.6990	Physical conditions
Confirmed	0.876	1.714	3.2330	Style of leadership
Confirmed	1.112	-0.590	3.2845	Organizational atmosphere

Organizational function				
Normal distribution	Kurisu	Skewness	mean	Variable
Confirmed	1.164	-1.242	3.0576	Financial
Confirmed	1.098	-1.411	3.0105	Beneficiaries
Confirmed	-0.786	-1.159	3.432	Internal process
Confirmed	1.121	-0.397	3.6257	Growth and learning

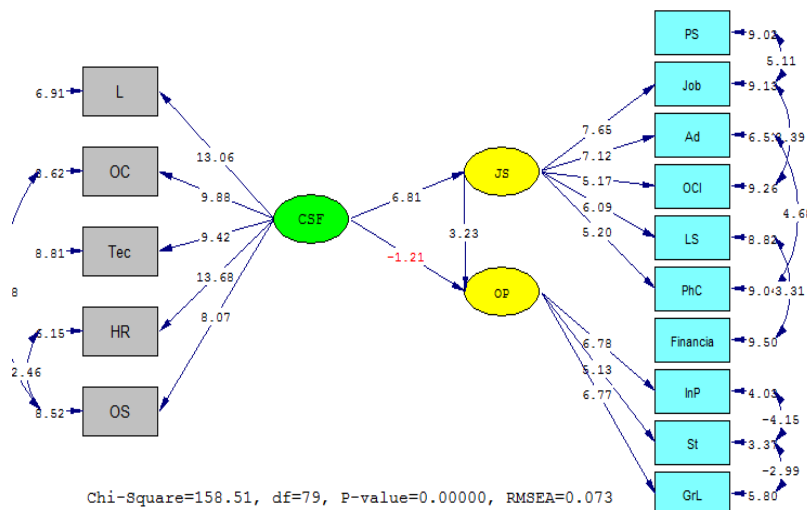


Figure1: out put of LISREL software (statistics T)

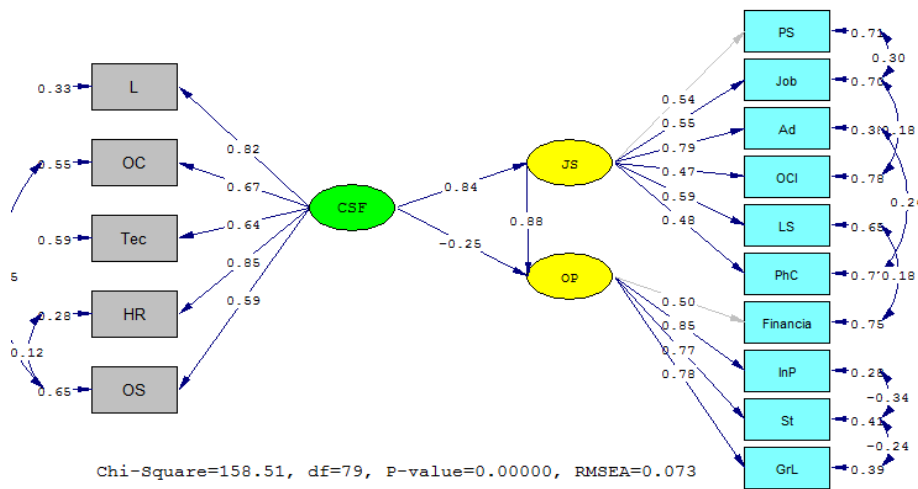


Figure 2: output of LISREL software (standard coefficient)

Table 2: fitness indexed model of the research

CFI	NNFI	NFI	RMSEA	SRMR	Fitness index
>0.9	>0.9	>0.9	<0.01	0.05	Accepted domain
0.94	0.92	0.91	0.073	0.021	Result

RESULT AND DISCUSSIONS

According to the fitness model of the research, the rejection or confirmation of the hypothesis can be expressed.

Followings are the results of hypothesis's test:

First hypothesis: critical success factors of knowledge management don't influence in job satisfaction.

H0: critical success factors of knowledge management don't influence in job satisfaction.

H1: critical success factors of knowledge management (CSF) don't influence in job satisfaction (JS).

As you see in table 2 the amount of T statistics is 6.81 and is rejected in assumed result and critical success factors of knowledge management has a positive (direct) and meaningful effect on job satisfaction.

Second hypothesis: critical success factors of knowledge management have a positive effect on organizational function.

H0: critical success factors of knowledge management don't have a meaningful effect on organizational function.

H1: critical success factors of knowledge management (CSF) have a meaningful effect on organizational function (OF).

Table 3: result of first hypothesis

Testing result	Method coefficient	T statistics	Relation's direction	Relation			Hypothesis
confirmed H0	0.84	6.81	Direct	JS	←	CSF	1

Table 4: second hypothesis result

Testing result	Method coefficient	T statistics	Relation's direction	Relation			Hypothesis
Rejection of H0	-0.25	-1.21	direct	OF	←	CSF	2

As you see in table 3 the amount of T statistics is – 1.21 so the supposed result of zero is confirmed and critical success factors of knowledge management don't have a positive (direct) and meaningful effect of organizational function.

Third hypothesis: job satisfaction (JS) has a meaningful effect on organizational function (OF).

H0: job satisfaction doesn't have a meaningful effect on organizational function.

H1: job satisfaction has a meaningful effect on organizational function.

As you see in table 4 the amount of T statistics is 3.23 and so the assumption of zero is rejected and job satisfaction has a positive (direct) and meaningful effect on job satisfaction

Table 5: third hypothesis result

Testing result	Method coefficient	T statistics	Relation's direction	Relation			Hypothesis
Confirmation of H0	0.88	3.23	Direct	OF	←	JS	3

3. DISCUSSION AND CONCLUSION

Although its years that knowledge management is one of the competitive advantage in industrial and trading organization, knowledge management is not taken into consideration in higher educations and there are less researches about it. So the study aimed to empower the scientific bases on this area help the scientific and educational institutes to be implemented. In this regard and in order to recognize the critical success factors of knowledge management better its dimensions extracted and introduced that these dimensions include the strategies and leaderships, technology, organizational structure, organizational culture and human resources. Also the job satisfaction is as the base in organizational relation to human resources that influence in organizational function. In this regard and to recognize the job satisfaction structures better, its dimensions are extracted and introduced, that these dimensions include paying system, style of occupation, organizational atmosphere, chance of promotion. Physical conditions and leadership's style and organizational function was determined using equal scoring cards that its financial, beneficiaries, interior process and growth and learning dimensions.

After determining the dimensions of each variable using LISLER software the relation and their effects on each other was assigned. Critical success factors of knowledge management has direct effect on job satisfaction and job satisfaction also has a direct effect on organizational function, but direct effect of critical success factors of knowledge management on organizational function was rejected. Using the studies' findings we can understand the role of knowledge management in empowering organizational function in higher educations and attempts to implement the knowledge management more in higher education environ.

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