

THE RELATIONSHIP ANALYSIS BETWEEN KNOWLEDGE MANAGEMENT AND FACULTY MEMBERS' SELF-EFFICACY

(CASE STUDY: ISLAMIC AZAD UNIVERSITY REGION 1)

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Abstract—The main purpose of this study was to analyze the relationship between faculty members' knowledge management and self-efficacy in branches of Islamic Azad University Region 1. Research population included 2181 faculty members and the sample were 436 person which were selected by random stratified cluster based on krejciey Morgan table. Jashpara knowledge management questionnaire (chronbach alpha= 0.89) and shwarzer et al (1991)self-efficacy questionnaire (chronbach alpha=0.82)with appropriate validity based on the specialists points of view were used to conduct this research. Pearson correlation coefficient and stepwise regression tests were used to analyze the relationship between faculty members' knowledge management and their self-efficacy. the results showed that all dimensions of knowledge management including knowledge creating, organizing, implementing and sharing had a positive and significant relationship with faculty members' self-efficacy. Among the dimensions of knowledge management , knowledge sharing and knowledge organizing had a significant power for predicting faculty members' self-efficacy.

Index Terms— Knowledge Management, Self-Efficacy, Faculty members, Islamic Azad University

I. INTRODUCTION

Nowadays universities and higher education institutes play an important role in societies. Many advanced countries pay special attention to higher education sectors in order to produce educated human capitals for their countries development. according to this, faculty members of universities and their competencies and capabilities are very

important to improve the quality of universities and their students.

One ways to increase the capabilities and competencies of staffs is applying knowledge management that create ,organize , share and apply knowledge in organizations in a systematic way , Thus, knowledge of the organizations and the staffs is trying to become more effective and updated[1]. Educational organizations requires the application of knowledge management. One of the aspects that are supposed that applying knowledge management can increase it, is faculty members' self-efficacy. Researches have shown that the improvement of faculty members' beliefs about their capabilities, which is named as faculty members' self-efficacy, can have a great impact on improving the performance of faculty members and students in learning[2],[3], [4],[5]. Chue[6]believe that the application of knowledge management in education can improve the teaching process of teachers. Other research has shown that attention on knowledge management in education systems can improve the various processes of education, quality of work life, professional development and job satisfaction of teachers.[7],[8]

It is thought that increased knowledge and awareness for faculty members' should be able to increase their self-efficacy in teaching. Accordingly , it is important that faculty members' believes about their abilities, which was created by knowledge management to do their responsibilities about students education.

Therefore, this research with regard to the importance of the role of university faculty members in shaping behaviors and skills of universities, in order to educate the next generation which is needed for development of countries, is trying to engage this issue that, is there any relationship between knowledge management of faculty members with their self-

efficacy in branches of Islamic Azad University Region 1? And whether different aspects of knowledge management can predict their self-efficacy?

Knowledge management is the planning, organizing, motivating, and controlling of people, processes and systems in the organization to ensure that its knowledge-related assets are improved and effectively employed [9].

Davenport[10] defines the knowledge management as an effort to explore the treasure lies in the minds of the people and turn this hidden treasure to finance in a way that a wide collection of people in organization involved in Organization's decisions. Balcomb[11]defined Knowledge management as "the systematic acquisition of knowledge sharing, creation and application of knowledge to enhance the organization".

Shanhong[12] defined Knowledge management as "effective detection, creation, development, solving, use, storing and sharing knowledge in order to create an approach to convert tacit knowledge into explicit knowledge."

Jashpara[13] defines knowledge management in the form of a four-looped process as: effective learning process blended in creating, organizing, sharing (both tacit and explicit) and applying knowledge, which leads to upgrade of organizational intellectual capitals and performance improvement .

- **Knowledge Creating:** Knowledge creating is an endless process which includes creating novel ideas, grasping new paradigms, and combining isolated principles for establishing new processes[14].

- **Knowledge Organizing:** This loop of knowledge management cycle refers to storing, recording, and preserving knowledge in formats and frames which let other employees regain it. (Radding,2003,pp178-189).

- **Knowledge Sharing :** Knowledge sharing is the mutual knowledge flowing and scattering among people and mechanical and nonmechanical bases for knowledge. In fact, 90% of the knowledge management success depends on right knowledge sharing.(Radding, 2003, pp. 160).

- **Knowledge Implementing :** It Consists of utilizing the obtained ideas and knowledge, without being concerned about their presenters [16].

Self-efficacy

For the first time, Armor et al. [17] defined teachers' self-efficacy as "the extent to which the university teacher believes he/ she has the capacity to influence university students' learning". Bandura [18] defined self-efficacy as individuals' beliefs in their abilities to fulfill duties successfully." Self-efficacy beliefs are beliefs in an individual's own perceived competencies and that she/ he believes that she/ he can perform an action well or at least satisfactorily" [19]

Dellinger et al. [4] defined teachers' self-efficacy as "teachers' beliefs in their own abilities to fulfill teaching and learning duties successfully within their own class context". They insist on teachers' teaching context in their own classes and this is

what does not exist in Bandura's definition of teachers' self-efficacy [20].

Tschannen-Moran et al. [21]define teachers' self-efficacy as "teacher's belief in his/ her abilities to organize and perform activities required for fulfillment of teaching duties against a specific background". Teacher self-efficacy beliefs may affect learners' success in many different ways. Teachers who have higher self-efficacy tend to use innovative teaching methods in the classroom and classroom management as well as the different perspectives and different teaching methods to encourage learners to self-reliance and reduce the severe supervision of teacher [22] .Chacón [3] stated that teachers having higher self-efficacy beliefs can manage class issues better.

Awang et al [23]in a study about the application of knowledge management in the learning system in Malaysia, concluded that knowledge management is an important factor in improving the professional status of teachers and the development of the educational system and increase the academic achievement of students .

Ghalai et al[24] reported that teachers' self-efficacy had a significant and positive relationship with academic achievement .

Drang[25] in a research stated that using knowledge management among teachers in preschool centers improve their classroom management status and enhance the capabilities of their training .

Margolis and McCabe[5], in their research concluded that the teachers' self-efficiency would increase the motivation to learn in learners.

Cerit[2]reported that the teachers' self-efficacy would improve the quality of teaching and their educational activities .

Ohlsen[26]also showed that the quality of teachers will improve outcomes for learners. He knows that one of the characteristics of quality teachers to improve their efficacy and leadership abilities to teach.

Petrides and Nodin's[7]research showed that applying knowledge management strategies in schools and educational institutions can improve educational outcomes for teachers, schools and learners .

II. MATERIALS AND METHODS

The descriptive method, of surveying type, was used for conducting the study. Research population included 2181 faculty members of different branches of region1 of Islamic Azad University. The sample were 436 person which were selected by random stratified cluster sampling persons and was selected randomly based on krejcey Morgan table. Jashpara knowledge management questionnaire (chronbach alpha= 0.89) and shwarzer et al [27] self- efficacy questionnaire (chronbach alpha=0.82)with appropriate validity based on the specialists points of view were used to conduct this research. Pearson correlation coefficient and stepwise regression tests were used to analyze the relationship between teachers' knowledge management and their self-efficacy.

III. RESULTS

First hypothesis: There is a significant relationship between faculty members' knowledge creating and their self-efficacy. To test this hypothesis, Pearson correlation coefficient was used; results showed that there is a significant ,positive and direct relationship between faculty members' knowledge creating and their self-efficacy. The Pearson correlation coefficient was 0.310 and it's significant level was 0.012.

Second hypothesis: There is a significant relationship between faculty members' knowledge organizing and their self-efficacy. To test this hypothesis, Pearson correlation coefficient was used; results showed that there is a significant ,positive and direct relationship between faculty members' knowledge organizing and their self-efficacy. The Pearson correlation coefficient was 0.458 and it's significant level was 0.000.

Third hypothesis: There is a significant relationship between faculty members' knowledge applying and their self-efficacy. To test this hypothesis, Pearson correlation coefficient was used; results showed that there is a significant ,positive and direct relationship between faculty members' knowledge applying and their self-efficacy. The Pearson correlation coefficient was 0.411 and it's significant level was 0.001.

Fourth hypothesis: There is a significant relationship between faculty members' knowledge sharing and their self-efficacy. To test this hypothesis, Pearson correlation coefficient was used; results showed that there is a significant ,positive and direct relationship between faculty members' knowledge sharing and their self-efficacy. The Pearson correlation coefficient was 0.447 and it's significant level was 0.000.

In table 1,pearson coefficient between faculty members' self-efficacy and dimensions of knowledge management are presented. Also the total relationship between faculty members' knowledge management and their self-efficacy , according to pearson coefficient was 0.528 which was significant at level 0.000 .

Variable	Self-efficacy		
	Mean	Correlation coefficient	P value
Knowledge Creating	4.3535	0.310	0.012
Knowledge Organizing	3.9762	0.458	0.000
Knowledge Implementing	3.7796	0.411	0.001
Knowledge Sharing	3.7492	0.447	0.000
Knowledge Management	4.2314	0.528	0.000
Self-efficacy	3.3559	1	

Table1: Pearson correlation coefficient between faculty members' and dimensions of knowledge management

In table 2 ,the stepwise regression between faculty members' self-efficacy and dimensions of knowledge management are presented.

Model		SS	df	MS	F	P	R	R ²	Revised R ²
1	regression	1.902	1	1.902	18.114	0.000	0.470	0.221	0.190
	residual	6.761	64	0.105					
	total	8.663	65						
2	regression	2.106	2	1.053	10.125	0.000	0.507	0.257	0.245
	residual	6.557	63	0.104					
	total	8.663	65						

Table 2: The stepwise regression between faculty members' self-efficacy and dimensions of knowledge management

Model		Unstandardized Coefficient		Standardized Coefficient	t	Significant level
		B	Standard Error	Beta		
1	Constant	2.429	0.219		10.720	0.000
	Knowledge Organizing	0.235	0.061	0.470	4.151	0.000
2	Constant	1.994	0.285		7.003	0.000
	Knowledge Organizing	0.181	0.054	0.335	3.062	0.003
	Knowledge Sharing	0.171	0.065	0.267	2.388	0.020

Table 3: Stepwise regression coefficients

As it is observed, among all dimensions of knowledge management, knowledge organizing in first step ,and knowledge organizing and knowledge sharing in second step ,had the most prediction power for predicting pre- faculty members' self-efficacy. According to findings knowledge creating and knowledge implementing had no power for predicting faculty members' self-efficacy.

IV. DISCUSSION AND CONCLUSION

With regard to direct and significant positive relationship between knowledge management and faculty members' self-efficacy, it can be concluded that , if Knowledge management is implemented correctly among faculty members, they can empower their abilities by creating, implementing, sharing and organizing their knowledge to improve the self-efficacy. Accordingly recommended that universities provide the basis for the implementation of knowledge management and encourage the creation and application of knowledge management in their own classrooms by adopting policies, for Using knowledge management capacities to increase their self-efficacy. The results achieved are consistent with results of the researches done by Awang et al[23],Drang[25],

Cerit[2], Ohlsen[26], Petrides and Nodin[7], and Ghalai et al[24].

As there was a direct and significant positive relationship between faculty members' knowledge creating and self-efficacy it can be concluded that, Knowledge creating can improve the faculty members' self-efficacy in the educational affairs. In other words, production and acquisition of the knowledge needed by faculty members can increase their faith in their own abilities to do their tasks successfully and lead to improve the outcomes' quality. The results achieved are consistent with results of the researches done by Awang et al[23], Drang[25], Cerit[2], Ohlsen[26], Petrides and Nodin[7], Ghalai et al[24] and Wang and Jia[8].

As there was a direct and significant positive relationship between faculty members' knowledge organizing and self-efficacy it can be concluded that, Knowledge organizing can improve the faculty members' self-efficacy in the educational affairs. thus it is recommended that universities should provide necessary basis for motivating faculty members to produce the desired knowledge. The results achieved are consistent with results of the researches done by Awang et al[23], Drang[25], Cerit[2], Ohlsen[26], Petrides and Nodin[7], Ghalai et al[24] and Wang and Jia[8].

With regard to direct and significant positive relationship between faculty members' knowledge implementing and self-efficacy it can be concluded that, Knowledge implementing can improve the faculty members' self-efficacy in the educational affairs, because paying attention to Knowledge implementing among faculty members can improve their believes about their abilities to do their educational tasks .so it is recommended that universities to provide a good basis for knowledge application in universities. The results achieved are consistent with results of the researches done by Awang et al[23], Drang[25], Cerit[2], Ohlsen[26], Petrides and Nodin[7], Ghalai et al[24] and Wang and Jia[8].

With regard to direct and significant positive relationship between faculty members' knowledge sharing and self-efficacy it can be concluded that, Knowledge sharing can improve the faculty members' self-efficacy in the educational affairs, because dissemination of ideas and knowledge among faculty members can improve their abilities and their believes about their abilities to do their educational tasks. it is recommended that universities to increase the possibility of publishing and distributing ideas and knowledge among faculty members by holding specialized scientific conferences and seminars. The results achieved are consistent with results of the researches done by Awang et al[23], Drang[25], Cerit[2], Ohlsen[26], Petrides and Nodin[7], Ghalai et al[24] and Wang and Jia[8].

REFERENCES

[1] A.P. Ciganek, E. Mao , M. Srite , Organizational Culture For Knowledge Management ,2008, Vol.4, No.1, Pp.1-16
[2] Y. Cerit, Teacher Efficacy Scale: The Study Of Validity And Reliability And Preservice Classroom Teachers' Self -Efficacy Beliefs, Journal of Theory and Practice in Education, 2010, No.24, pp:32-44

[3] C. T. Chacon, Teachers' perceived efficacy among English as a foreign language teacher in middle schools in Venezuela. Teaching and Teacher Education, 2005, 21, 257-272.

[4] A. B. Dellinger, J. J. Bobbett, D. F. Olivier, C. D. Ellett, Measuring teachers' self efficacy beliefs: Development and use of the TEBS-Self. Teaching and Teacher Education, 2008, No.24, pp:751-766.

[5] H. Margolis, P. McCabe ,Self-Efficacy: A Key To Improving The Motivation Of Struggling Learners, 2010, Available At : [Http://Www.informaworld.com/smpp/title~content=T914957660](http://www.informaworld.com/smpp/title~content=T914957660)

[6] K.W. Chue , M, Wang ,A. Yuen , Implementing Knowledge Management In School Environment: Teachers' Perception, Knowledge Management & E-Learning: An International Journal, 2011, Vol.3, No.2.

[7] L. A. Petrides, T. R. Nodine, Knowledge Management In Education : Defining The Landscape. (Report), 2003, Half Moon Bay, CA.: Institute For The Study Of Knowledge Management In Education.

[8] J. X. Wang, C. J. Jia, Education knowledge management strategies to promote teachers' professional development. Science & Technology Progress and Policy, 2005, 22(12), 159-161.

[9] W.R. King , T.R. Chung , M.N. Honey, Knowledge management and organizational learning, international journal of management science, 2008, OMEGA, Vol.36, p. 168.

[10] I.H. Davenport, Working Knowledge:How Organization Manage What They Know, 1998, Harvard Bussiness School Press, Boston, MA.

[11] J. Balcombe ,Getting Out Of The Box:The Role Of Information Professional In Knowledge Management, 1999, The Low Librarian.

[12] T. Shanhong, Knowledge management in libraries in the 21st century. Paper presented at the 66th IFLA council and general conference, 2000, Available at: <http://www.ifla.org/IV/ifla66/papers/057-110e.htm>

[13] A. Jashapara, Knowledge Management: An Integrated Approach Harlow, 2004, Essen: Prentice Hall.

[14] O. Nazari, Management and transfer of knowledge , Proceedings of the First International Conference on Human Resource Development, 2003, Tehran: Institute for Productivity and Human Resource Studies.

[15] A. Radding, Knowledge Management: succeeding in the information based global economy, Computer technology research corporation , 2003, pp:160-189.

[16] H. Benbya, Knowledge management, system implementation, lessons from the silicon valley Chands Publishing, International Journal of Knowledge Management, April-June, 2008, 5(2), pp: 103-105.

[17] D. Armor, P. Conry-Oseguera, M. Cox, N. King, L. McDonnell, A. Pascal, E. Pauly, G. Zellman., Analysis of the school preferred reading program in selected Los Angeles minority schools, 1976, (R-2007-LAUDS). Santa Monica, CA: The Rand Corporation.

[18] A. Bandura, (2000). Cultivate Self-Efficacy For Personal And Organization Effectiveness Handbook Of Principles Of Organization Behavior. Oxford, UK: Blackwell, 2000, Pp.120-139.

[19] Gist, M. E., & Mitchell, T. R. (1992). Self-Efficacy: A Theoretical Analysis Of Its Determinants And Malleability. Academy Of Management Review, Vol.17, No.2, Pp: 183-211.

[20] M. Yough, Self-Efficacy and the Language Learner, 2011, Ph.D dissertation, Ohio state university.

- [21] M. Tschannen-Moran, A. Woolfolk, W. K. Hoy, ,Teacher Efficacy: Its Meaning And Measure, Review Of Educational Research, 1998, No.68, Pp:202–248.
- [22] T. R. Guskey, P. D. Passaro,Teacher efficacy: A study of construct dimensions, American Educational Research Journal, 1998,No.31, pp:627–643.
- [23] M. Awang, R. Ismail, P. Flett, A. Curry, , Knowledge Management in Malaysian School Education: Do the Smart Schools Do It Better?, Quality Assurance in Education: An International Perspective,2012, vol:19 No: 3 pp :263-282.
- [24] B. Ghalai, P. Kadivar,Gh. Sarami ,M. Esfandiari ,Assessment Of Teachers Model Of Self-Efficacy Believes As Predictor Of Their Job Satisfaction And Student's Academic Achievement, Research In Curriculum Planning, 2012,Vol 2, No 32, Pp 95-107(Persian)
- [25] D.Drang , Preschool Teachers' Beliefs, Knowledge, and Practices Related to Classroom Management, 2011,Dissertation from Digital Repository at the University of Maryland.
- [26] M. Ohlsen ,A Study Of School Culture, Leadership, Teacher Quality And Student Outcomes Via A Performance Framework In Elementary Schools Participating In A School Reform Initiative, 2009,Phd Dissertation ,University Of Florida.
- [27] R.Schwarzer,et al; Teachers Self-Efficacy Questionnaire,1999, available at : http://userpage.fu-berlin.de/~health/teacher_se.htm