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## INVESTIGATIVE OF THE RELATIONSHIP BETWEEN KNOWLEDGE MANAGEMENT AND COMPETITIVE ADVANTAGE

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### ABSTRACT

The objective of this study was to investigate the relationship between knowledge management and competitive advantage. The method of the study was Cross-correlation method and the population of the study was included all employees of the Petrochemi factory in the city of Bojnord. The sample size was 320 individuals according to Morgan and Krejcie Table (N=1400) and cluster sampling method was chosen to select sample. For data collection used two questionnaires. One of them was the researcher made questionnaire to find knowledge management based on “The building blocks of knowledge management” of Probst et al. model (2002) (including the fundamental elements of knowledge management, Knowledge goals, knowledge acquisition, knowledge development, and knowledge update) and another one was a standardized questionnaire for assessing competitive advantage. Data analysis (Pearson correlation test, one-way Analysis of variance, and Bonferroni post hoc test) was performed using SPSS software. The results showed that the main hypothesis of the study was approved and there was a significant positive relationship between the management of knowledge and gain competitive advantage at the level of  $P < 0.05$ . Accordingly, much expanded and institutionalized knowledge management may also increase the rate of gain competitive advantage.

**Keywords:** Knowledge Management, Competitive Advantage

### INTRODUCTION

In recent years, knowledge management has become a vital issue. Management Knowledge makes able the organizations to identify knowledge and basic skills, construction and updating of critical knowledge, exchange and transfer knowledge, and the stability of doing in the operations (Jan, 2011). Successful organizations are organizations that are not based on assets, such as factories and machines, but rely on the knowledge and the skills of employees are constantly innovating (Richter, 2013). Vuori and Okkonen (2012) demonstrated that the approaches of management knowledge focused to gain knowledge by official systems such as database of information typically. While, the participation between people make different the functions of management knowledge. Bechina and Ribiere (2012) pointed that the capability of production by an organization is depended on included knowledge in its routine programs and its structure of production. Accordingly, the physical capital of organization consider as limited asset of organization unless the people know how to use them.

### THE STATEMENT OF THE PROBLEM

This age is to accelerate and transform the lives of all of us so that the wave of these changes will affect our lives wanted or unwanted. Hence, a society is pioneer to cope with the changes and global competition compatibly to have skilled, specialist, creative, self-confidence and knowledge oriented manpower. The essential and required section in organizational success is a widespread domain of organizational ideas including strategic, economic, behavioral and management innovations. In today world which the production of the products and the presentation of the services become strongly knowledge-based, knowledge is as asset key to gain advantage competitive (Husin and Hanisch, 2011). Jennex et al. (2008) believe that the management knowledge at pioneer organizations help to create knowledge share culture among employees and with transforming human capital to organized intellectual

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asset create values for the organization. According to Casanueva & Castro & Galán (2013), knowledge-based and knowledge-oriented organization is an organization that creation of knowledge and the process of sharing knowledge are Internalized and it is accepted as the guidance way of the operations. White and Bruton (2007) consider that one of necessity of applying knowledge management is to make an environment in organization to share, transfer and contrast knowledge among the members and to teach them in line with conceptualization of their interactions. So, exclusively to make adoption strategies and measures to manage human capital-based (Adam and McCreedy, 1999). Gnyawali & Srivastava (2013) remarked that achieving to success regarding the substantiation of knowledge management in each organization needs involvement of all staff at its implementation (Ford and Mason, 2013).

Next decade is decade of value creation of through intellectual capitals for organizations and countries. Therefore, noting to intellectual capital at global and regional level and being new issue could be as an advantage for our country (Iran).

### **BACKGROUND OF THE STUDY**

The results of the study by Beik-zadeh and Souri (2003) indicate the role of organizational leadership and empowerment of human resources on a strategic model of knowledge management. The findings of another study by Moshabaki and Zarai (2003) showed the existence of organizational knowledge base which is efficient, fast and accurate identification of date and the opportunities and threats, is more important. Also, they expressed that investment on technical infrastructure in organizational knowledge is a very sensitive issue. The findings of the research done by Rahmati (2013) revealed that there are a direct and positive relationship between knowledge management and organizational climate in higher education. In addition, Elahi (2009) indicated that there are a direct and positive relationship between knowledge management and the expanding of entrepreneurship. The results of park (2004) suggests that there are significant differences between some of the actions and practices of knowledge management in the private sector and the public sector. Moreover, Lichtenthaler & Ernst (2006) showed that organizations do not have the great ability in knowledge management.

### **METHODS**

The cross correlation method was used in this study with attention to main hypothesis: "to investigate the relationship between knowledge management and competitive advantage". Population of the study included all employees of the Petrochemi factory in the city of Bojnord. The sample size was 320 individuals according to Morgan and Krejcie Table (N=1400) and cluster sampling method was chosen .

For data collection used two questionnaires. One of them was the researcher made questionnaire to find knowledge management based on "The building blocks of knowledge management" of Probst et al. model (2002) (including the fundamental elements of knowledge management, Knowledge goals, knowledge acquisition, knowledge development, and knowledge update) with 36 questions by format of Likert (5 degrees) another one was a standardized questionnaire by Mogimi for assessing competitive advantage containing 15 questions (5 degree Likert). The validity of research instrument confirmed through library studies and comments of specialist in this topic. The reliability of research instrument determined by Cronbach alpha coefficient. It was 0.89 and 0.81 for competitive advantage and knowledge management questionnaires for the entire sample respectively.

### **THE RESULTS**

There is a significant relationship between knowledge management and competitive advantage (0.05 > 0.00) (Table 1).

✓ First hypothesis: There is not a significant relationship between the determination of knowledge goals and gained competitive advantage at the level of significance (0.17 > 0.05). (Table 1)

✓ Second hypothesis: There is a significant relationship between knowledge acquisition and gained competitive advantage (0.05 > 0.00). (Table 1)

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- ✓ Third Hypothesis: There is a significant relationship between knowledge development and gained competitive advantage ( $0.05 > 0.02$ ). (Table 1)
- ✓ The fourth hypothesis: There is a significant relationship between Updating of knowledge and gained competitive advantage ( $0.32 > 0.05$ ). (Table 1).

**Table 1: The Results of the Pearson correlation test to examine the relationship between knowledge management and its elements and gained competitive advantage**

Number	P-value	Pearson coefficient		
316	0.00	0.712	<b>Knowledge Management</b>	
316	0.170	0.130	Determining of knowledge goals	<b>Elements of Knowledge Management</b>
316	0.00	0.43	Acquiring of Knowledge	
316	0.20	0.680	Development of Knowledge	
316	0.11	0.32	Updating of knowledge	

**The relationship between Assumptions of the study and demographic characteristics:**

1) With regard to the p-value, there is a significant relationship between work experience, education degree levels and knowledge management. (Table 2)

**Table 2: The Results of ANOVA test to investigate Service records (experience), Education level with knowledge management**

Source of change	Error sum of squares (ss)		Degrees of freedom (df)		The mean square error (Ms)		Statistics ( F )		p-value	
	Experien ce	Educati on	Experien ce	Educati on	Experien ce	Educati on	Experien ce	Educati on	Experien ce	Educati on
Treatme nt	0.738	1.607	1	2	0.738	0.803	15.139	18.714	00:00	0.000
Error	6.921	6.052	314	313	0.049	0.043				
Total	7.659	7.659	315	315						

2) There is a significant difference between knowledge management with Associate degrees and diploma and bachelor's degree (Table 3).

**Table 3: The result of Bonferroni post hoc test for comparison twosome of Knowledge management based on education degree levels**

p-value	Standard deviation	The difference between two means	Components
0.00	0.052	0.269	<b>Diploma - Associate degrees</b>
1.00	0.046	-0.04	<b>Associate degrees - bachelor's degree</b>
0.00	0.041	0.229	<b>Diploma - bachelor's degree</b>

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3) There is no significant relationship between the years of service (work experience) and education degree levels with gained a competitive advantage

### **DISCUSSION AND CONCLUSIONS**

Knowledge management is the process needs to process data into information and information into knowledge. Knowledge management is a two-way process in which the data acquire, extract and save firstly; and then the data will be converted or reformed to suitable state for applying by users. The research by Daneshfard and Zakeri (2009) showed that there was positive relationship between knowledge management and competitive advantage. The results suggested that knowledge management has assumed as an antecedents of competitive advantage. The results of current study confirmed the result of the studies by Rahmati (2011) and another study by Moshabaki and Zarei (2003).

So, the success of any organization depends on its realized knowledge management. Organizational dynamic is in the acquisition of knowledge, the deployment of staff's experiences and applying of these experiences and skills in performing the tasks, roles, activities and the interaction in multiplexing (transmission) of knowledge and communication within and outside the organization. According to confirming of the second hypothesis in this study, it might be concluded that the ultimate focus of knowledge management activities is to apply acquired knowledge which is the most effective components of management. Based on this issue, knowledge should be achieved of the internal and external resources such as knowledge of the customer, the production, Competitors and the like. In other words, in fact, customers, sponsors, competitors, and partners make result in the production of knowledge around it.

In this way, some tools like the telephone, conferencing, Internet are effective. Also, the organizations can buy and develop new knowledge that cannot provide by own through hiring experts to achieve the objectives of organization. Another ways to acquire new knowledge is collaboration and partnerships with other sectors of industry and competitor within the organization to work through this initiative of others. Based on the results of the third hypothesis, there was no relationship between the development of knowledge and to gain a competitive advantage. It is accordance with the study by Moshabaki and Zarei (2003). What are important in this area is that the organizations should make effort to enhance their learning experiences in the creation or development of knowledge management actions or the potential to create competitive wing to operate.

In this matter, organization can use a map of the knowledge that focused on learning experiences to get more favorable results in its activities. This step focuses on creating new skills, new products, better ideas and processes are effective. Meanwhile, the knowledge is not only a source of expertise, but the experience is important; Therefore, an organization's internal network and facilitated communication among individuals is the key matter of this stage. The development of knowledge management includes all administrative efforts to build capacities in the organization which still has not come into existence. In this issue, some actions can be effective including the use of expert groups, devoting places for meeting, Internet, reviewing their activities after its finishing, staff multiple educating, and using chat to communicate Beik-zadeh and Souri (2003).

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