

# A Survey of the Effect of Social Capital on Knowledge Management (The Case Study: Payame Noor University of Hormozgan (Bandarabbas))

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**Abstract** Universities because of the importance and position they play in the every country's socio-economic development, require attention to personnel social capital at the university, because the social capital, makes effective knowledge management possible. Hence, this study was performed to investigate the effect of social capital on knowledge management among staff of payame Noor University at Hormozgan province (Bandar Abbas). This research is survey-descriptive of correlation type and the required data were collected through library- field. The subjects in this study consist of Payame Noor University staff of Hormozgan province. In this study, 54 staff of Bandar Abbas Payame Noor University were selected through random sampling. Data gathering tool was knowledge management questionnaire and knowledge management process was measured based on the five dimensions such as registration knowledge, acquisition knowledge, transmission knowledge, creation knowledge, application knowledge which its validity was face validity and its reliability was established through cronbachs alpha. Data analysis was performed by spss software version 20 using descriptive and inferential statistics such as regression, one way anova, t test. The result show that the staff mean score of knowledge management was  $76/66 \pm 20/48$ . The result show that there was a significant relationship between social capital and knowledge management. Also there was a significant relationship between social capital and the five component of knowledge management such as creation of knowledge, acquisition of knowledge, capture of knowledge, transferring of knowledge, application of knowledge.

**Keywords** Knowledge managemen, Social capital, Staff, Hormozgan (Bandar Abbas) Payame Noor University

## 1. Introduction

Universities are the type of the social systems which are the information stimulant force and are known as thinking commanders of communities.

Today in order to cope with challenges and complexities of their environment, universities and higher - education establishments have to benefit from modern approaches of management.

Knowledge management which is best created in learning and knowledge based enviroments is one of the most efficient ways to achieve the above mentioned goal.

Knowledge management study strategy is the process and technology for the purpose of acquisition, selection, organization, decision and application of specialty and vital information for business and work to improve the quality of decision - making and the efficiency of the organization. (Riches, 2005).

Knowledge management also acts as a science which facilitates quick and easy communication, exchange and transfer of information and expresses the innovation, ability and efficiency in organizations, especially universities. (Lahijaniyan, 2006: 20).

The establishment of a successful knowledge management depends on various factors such as social capital which interacts with knowledge management variables.

The idea of social capital for the first time was introduced by Jane Jacobs in his classical work.

The existence of social capital can increase attraction, codification and transmission of knowledge. Social capital increases knowledge management processes (Hoffiman, Hoelscher & Sherif, 2005).

Fukuyama believes social capital is individuals abilities for working together, in order to achieve common goals in groups and organizations (Fukuyama, 2001).

According to putnam, social capital is networks and norms of mutual cooperation that will create value (putnam, 2002).

Social capital is also an effective factor in the direction of the transfer of knowledge among personnel in organizations and helps them have a better relationship with others as a result of the necessary knowledge they have acquired.

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Considering the above mentioned information, this study seeks to examine how the impact of social capital on knowledge management at the Hormozgan (Bandar Abbas) Payame Noor University.

In this regard the real question of this study is whether the social capital have an impact on knowledge management? whether is there a significant relationship between social capital and dimensions of knowledge management?

Therefore, the main aim of the present study, is to examine the impact of social capital on knowledge management at the Hormozgan (Bandar Abbas) Payame Noor University.

## 2. Background and Research Theoretical

Hoffman et al (2005) have investigated the relationship between social capital and knowledge management and how knowledge management impacts organizational performance. The findings of their study shows that there is a significant relationship between social capital and knowledge management, and organizations with higher levels of social capital have more knowledge management compared with organizations with lower levels of social capital.

Demori et al (2010) investigate the relationship between knowledge management and social capital at the Islamic University (from the perspective of the faculty members of Yazd university). The results of their studies shows that there is a positive and significant relationship between knowledge management and social capital.

The results of the studies done by Khanifar et al (2011) shows that there is a significant relationship between components of knowledge management and social capital.

Abili & Zarekhalili (2014) in their study showed that there is a positive and significant relationship between organizational social capital and knowledge management. moreover test results showed that all components of social capital have a positive and significant relationship knowledge management.

Landry et al found good evidence based on the relationship between social capital and knowledge management (Landry et al., 2002).

Danpoort & Prosatt (2009) believe that knowledge management helps to create knowledge sharing culture among personnel and create value for organization by converting human capital to the organized intellectual property. (Danpoort & Prosatt, 2009: 12)

Specter & Anderson (2000) believe that Knowledge management is a new engine that can remove gaps and spaces. educational institutions that use knowledge management reach to a higher degree of quality, innovation and efficiency (Specter & Anderson, 2000).

Hulse considers knowledge management as the process through which organizations find the ability to turn data into information and information into knowledge and will also be able to utilize the acquired knowledge in their decisions

effectively. (Abtahi & Salavati, 2007: 34).

## 3. Research Methodology

The present study utilized a quantitative approach by survey method. The subjects of this study consist of all employees and professors of Hormozgan (Bandar Abbas) Payame Noor University. Fifty four employees and professors were selected according to simple random sampling.

The main tools data collection in this research is questionnaire. In order to provide for the reliability of the questionnaire Cronbach's alpha was used. The coefficient of Cronbach alpha for social capital was 0.92 percent, and for knowledge management 0.94 percent. These numbers indicate that the questionnaire used in this study enjoys a high reliability. The validity of the questionnaire has been approved by specialists in the field.

Data were entered in to statistical package for social science (SPSS) to be analyzed. To analyze the data from the descriptive statistics methods and inferential statistics, such as Pearson, regression analysis, analysis of variance and t-test were used.

## 4. Hypotheses

- Seems to be there is a significant relationship between social capital and knowledge management.
- Seems to be there is a significant relationship between social capital and knowledge management components (creation of knowledge, acquisition of knowledge, capture of knowledge, transferring of knowledge, application of knowledge).
- Seems to be there is a significant relationship between age and knowledge management.
- Seems to be there is a significant relationship between gender and knowledge management.
- Seems to be there is a significant relationship between education degree and knowledge management.
- Seems to be there is a significant relationship between work experience and knowledge management.
- Seems to be there is a significant relationship between employment status and knowledge management.
- Seems to be there is a significant relationship between job category (administrative, scientific) and knowledge management.

## 5. Finding

Based on the results of the descriptive statistics in the sample it was seen in this study 48/1 percent of the subjects are male and 51/9 percent are female.

31 people (57/4 percent) less than 35 year, 19 people (35/2 percent) between the ages of 35- 45 and 4 people (7/4 percent) higher than 45 year. Regarding marital status 33/3 percent

are single and 66/7 percent are married.

24/1 percent of the subjects have associate degree, 51/9 bachelors' degree and 24/1 percent master's degree or higher. The most work experience was between 6-10 years with the frequency of 44/4 percent and the least work experience was between 11- 15 years with the frequency of 13 percent. In terms of employment status, the majority of the respondents with 50 percent were working on a contract based. 63 percent of them were clerical and 37 percent were faculty members.

The average score of knowledge management among the employees was 76/66 that knowledge transfer has the highest score (16/70) and application of knowledge has the lowest score (10/92).

**Table 1.** Mean and standard deviation knowledge management and its dimensions

variable	Mean $\pm$ Standard deviation
Creation of knowledge	11/01 $\pm$ 4/20
Acquisition of knowledge	12/01 $\pm$ 3/25
Capture of knowledge	14/50 $\pm$ 4/51
Transferring of knowledge	16/70 $\pm$ 4/86
Application of knowledge	10/92 $\pm$ 3/46
knowledge management	76/66 $\pm$ 20/48

The findings of the relationship between social capital and knowledge management using regression method, showed

that there is a positive and significant relationship between these two variables in the level of significance 0/99 ( $r = 0/881$  and  $p \leq 0/01$ ). So the main research hypothesis with the significance level of 0/99 is confirmed.

As results indicate social capital has a positive and significant relationship with five dimensions of knowledge management. This is an indication of the confirmation of the research hypothesis.

In order to examine the existence of assumptions of the relationship between the age and knowledge management ANOVA was used .as we see the table people in the age range of less than 35 years, 35- 45 years and more than 45 years, had the averages of 78/51, 70/10, 93/50 in knowledge management respectively. In fact, the average score of knowledge management has been in between higher in people over 45 years. This hypothesis is also confirmed with the significance level of 0/054.

With the significance level of 0/538 this hypothesis which deals with the meaningful difference between knowledge management and gender cannot be confirmed.

Table 6 shows the relationship between variables such as degree of education, work experience, employment status and knowledge management using ANOVA. We can see that there is no significant relationship between these variables and the knowledge management.

**Table 2.** Pearson correlation coefficient between social capital and knowledge management

Variable	R	R <sup>2</sup>	Adj.R <sup>2</sup>	Standard error	B	Beta	F	T	Sig
Social capital	0/881	0/775	0/771	9/80	1/18	0/881	179/43	13/39	0/000

**Table 3.** The relationship between the mean of social capital and dimensions of knowledge management

Dimensions of knowledge management	R	R <sup>2</sup>	Adj.R <sup>2</sup>	Standard error	B	Beta	F	Sig
Knowledge creation	0/784	0/614	0/607	2/63	0/216	0/784	82/87	0/000
Knowledge acquisition	0/740	0/548	0/539	2/20	0/158	0/740	62/94	0/000
Knowledge capture	0/696	0/485	0/475	3/27	0/206	0/696	48/88	0/000
Knowledge transfer	0/801	0/641	0/635	2/94	0/255	0/801	93/02	0/000
Knowledge application	0/745	0/555	0/547	2/33	0/169	0/745	64/87	0/000

**Table 4.** Results of the ANOVA of knowledge management with age

age	Frequency	Mean	Standard deviation	Standard error	Sum of squares	Mean square	F	Sig
Less than 35years	31	78/51	19/29	3/46	2057/46	1028/73	2/59	0/054
35- 45 years	19	70/10	20/28	4/65				
More than 45years	4	93/50	23/18	11/59				
Total	54	76/66	20/48	2/78				

**Table 5.** Test results of mean difference of knowledge management in terms of gender

Gender	Frequency	Mean	Standard deviation	Levenes Test	T	Sig
Female	28	78/32	23/61	2/40	0/620	0/538
Male	26	74/88	16/76			

**Table 6.** Results of the analysis of variance of knowledge management with degree of education, work experience and employment status

Variable	F	Sig
Education degree	0/357	0/701
Work experience	1/89	0/160
Employment status	0/342	0/712

**Table 7.** Test results of mean difference of knowledge management in terms of job categories

Job categories	Frequency	Mean	Standard deviation	Levenes Test	T	Sig
Administrative	34	75/29	22/66	1/56	0/491	0/216
Scientific	20	79/00	16/41			

According to the level of significant, this hypothesis which deals with the meaningful difference between knowledge management and job is not confirmed.

- promoting research and development level and coherent communication with other universities research and development centers.

## 6. Conclusions

Results of testing research hypotheses shows that the average score of knowledge management among people over 45 years is more compared to other two age gorups (less than 35years, 35-45years). Thus, the assumption of the existence of the relationship between age and knowledge management is confirmed.

As the results of the study show social capital has a positive and significant relationship with the five dimensions of knowledge management. This finding is in line with the results of the study done by Abili & Zarekhalili, 2014, Hoffiman et al, 2005, Khanifar, 2011.

Another finding of this study confirms that there is not a significant relationship between gender, degree of education, the employment status, work experience, type of job and knowledge management.

## 7. Recommendations

Organizations in order to benefit from effective knowledge management for their organization must try to strengthen the social capital and mutual trust among their staff.

In order to strengthen the growth of social capital and knowledge management the following can be considered:

- Providing active participation for the employees in order to solve the problems of the organization and create a climate of mutual trust.
- Encouraging working procedures at universities so that employment policy should not be based only on speciality, but on the person's ability to communicate with others and the person's interest in working with the group.
- knowledge creatin is an important indicator for the implementation of knowledge management. With regards to the meaningful relationship between social capital and creation knowledge, it is suggested that universities value knowledgsge creatrion mechanisms.

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