

Assessment of the relationship between infrastructures of knowledge management and organizational performance in petrochemical company of Mehr

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Abstract

The main purpose of this study is to assess the relationship between infrastructures of knowledge management, knowledge process capability, creative organizational learning and organizational performance in petrochemical company of Mehr. Data analysis has been conducted through regression. At organizational level, knowledge management is along with several interests such as promotion of performance of the company through efficiency, productivity, quality and innovation. Those organizations that have high level in field of knowledge management are able to respond the rapid environmental changes and expansion of innovative ideas in products and services improving their performance. Conducted studies in relation with knowledge management have not considered all aspects of knowledge management infrastructures or they have not had a comprehensive view in this field. Companies can manage their performances' promotion through targeting, recognizing, defining of criteria and evaluation of continuous performance. Knowledge has been considered as the long-term key source for companies and its management is a necessity to access to success. Among variables of knowledge management (KM) infrastructures, the relationship between variables of trust, learning culture, decentralization, top management support, promotion and information technology (IT) support and Knowledge process capability (KPC) was confirmed; on the other hand, the relationship between variables of KPC and creative organizational learning was confirmed. Companies would be able to make logical decisions about important organizational issues relying on knowledge. Finally, the relationship between creative organizational learning and organizational performance in this company was confirmed.

Keywords: Knowledge management, trust, IT support, organizational performance

Introduction

Knowledge management has been one of the most important issues in current world. Knowledge management is a progressing approach considering its attention toward increase in efficiency and improvement of organizational processes effectiveness along with continuous innovation. Knowledge management is an important element for organizational performance and access to a sustainable competitive advantage. This part of study includes problem statement, importance and necessity of subject then there are some explanations about objectives and hypotheses as well as the application of results. Finally, this part is ended with definition of some key words. In this chapter, a general frame of the subject has been proposed and other parts are related to the responses to this subject. Identification of knowledge as an organizational source, growth theories and emergence knowledge-based organizations all have created a new scope of KM within information systems.

These progresses indicate that knowledge and its different forms are human capital and asset so that high-tech products and services are gained through investment in Knowledge. Knowledge and created capabilities by it are considered as increasing incomes of organization along with other production factors (Noroozi, 2011). Companies can manage their performances' promotion through targeting, recognizing, defining of criteria and evaluation of continuous performance. Knowledge has been considered as the long-term key source for companies and its management is a necessity to access to success. Rapid changes in knowledge and approach of KM can be discussed through a scope of knowledge dynamics. Knowledge dynamism is created by some factors such as investment in researches, creativity, education, knowledge sharing, knowledge development, knowledge transfer, knowledge application and delivery (Yadollahi et al, 2007).

Today, companies hardly try to be recognized as pioneers of skills of knowledge management and this would be possible through use of knowledge for innovative goals. Knowledge is considered as a powerful element in organizations that are pioneers of knowledge so that this element enables them to present significant potential in field of productivity and efficiency. This study has been conducted to respond this question that how infrastructures of knowledge management can effect on organizational performance.

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Literature Review:

Background of this study can be examined in two aspects. The first aspect refers to the elements and necessary infrastructure to increase the organization's readiness to implement knowledge management. Knowledge management includes technological and human aspects of an organization (Alavi, & Leidner, 2001). Therefore, there are special infrastructure for the organization. For example, knowledge leadership, knowledge, culture, continuous learning, organizational knowledge systematically developed technology and processes were introduced as the infrastructure. In research of Halsapl and Joshi (2000) presented Delphi study on a number of factors extracted from literature, three groups of management, resources, and environment as factors influencing knowledge management that referred to the management factors such as coordination, leadership and management, crew resources, financial resources, human, material and environmental factors in the markets, time pressure, Economy, and State, and so.

Chourides et al (2003) in their study emphasized on a number of factors into five task organization emphasized that these factors include: strategy, human resource management, information technology, quality and marketing. In another research, they studied supporting capabilities of knowledge management success in five categories including leadership, culture, structure, roles and responsibilities, and manage their information technology infrastructure.

Davenport et al (1998) with an exploratory study on 31 projects in 24 companies determined effectiveness factors of knowledge management, including: the explicit goal, standard and flexible knowledge structure, multiple channels of knowledge transfer, knowledge culture, technological and organizational infrastructure, changes in motivation and support from senior management.

Pan & Scarbrough (1998) introduces the three components of the foundation of knowledge management systems, the information and cultural information.

The second aspect refers to the history of the relationship between knowledge management and organizational performance. Rajaeipour and Rahimi (2008) studied the relationship between the process of converting knowledge management and the performance of Isfahan's faculty members. The results showed that there is a positive and significant correaltion between the conversion process of knowledge management and performance.

Madhoshi and Sadati (2011) studied the impact of knowledge management in small businesses and medium Entrepreneurship of East Mazandaran. The findings of this study indicate that sharing knowledge both directly and indirectly affect the process of organizational entrepreneurship. Gold et al (2001) found

that knowledge management capabilities within the organization have a significant impact on organizational performance. Lee et al. (2005) evaluated performance knowledge management in 101 companies, it included five components of the cycle of knowledge creation, storage, sharing, application and assimilation of knowledge.

Finally, they studied the correlation between knowledge management performance and financial components that results showed a significant correlation between them. According to a review of previous studies, it is noteworthy that most of these studies have investigated the relationship between knowledge management and organizational performance. But the remarkable thing is that the investigation is primarily to examine the relationship between knowledge management and organizational performance. However, by a closer examination of this issue, an organization should be examined various aspects and comprehensively. So it seems that the use of a universal model to investigate this relationship can be very effective and efficient guidance for the study. The aim of this study was to examine the relationship between the framework of knowledge management and organizational performance. Companies are affected by environmental factors while majority of these factors are not controllable.

According to these conditions, those companies are successful that can promote their performance level as well as knowledge acquiring and identification of the mentioned factors within current competitive environment. Knowledge is considered as the main competitive advantage for companies (Denning, 2006). Companies would be able to make logical decisions about important organizational issues emphasizing on knowledge. Accordingly, the knowledge management is more important than the matter of knowledge; hence, this subject has been considered as an important issue. Knowledge management is an organized approach that increases the ability of organization and effectiveness rapid in service delivery through three individual, team and organizational level creating conditions of innovation, knowledge sharing and application (Du Plessis & Boon, 2004). At organizational level, knowledge management is along with several interests such as promotion of performance of the company through efficiency, productivity, quality and innovation. Those organizations that have high level in field of knowledge management are able to respond the rapid environmental changes and expansion of innovative ideas in products and services improving their performance (Bidokhti et al, 2011).

Conducted studies in relation with knowledge management have not considered all aspects of knowledge management infrastructures or they have not had a comprehensive view in this field. Since this study has been conducted to present a general view in relation with KM infrastructures and their effects on performance of organization, it can be a new and valuable study. This study aims to analyze the relationship between KM infrastructures, knowledge process capabilities (KPC), creative organizational learning and organizational performance. Capability of knowledge management process and creative organizational level is a mediator within the relationship between knowledge management infrastructures and organizational performance.

According to the mentioned points in problem statement and goals of study as well as assessments of theoretical literature in this field, knowledge management infrastructures can effect on knowledge management capabilities, KM capabilities can effect on creative organizational learning and this variable

can effect on organizational performance. Hence, hypotheses of this study have been expressed as follows:

Hypothesis 1: there is a significant relationship between collaboration and knowledge process capabilities.

Hypothesis 2: there is a significant relationship between trust and knowledge process capabilities.

Hypothesis 3: there is a significant relationship between learning culture and knowledge process capabilities.

Hypothesis 4: there is a significant relationship between decentralization and knowledge process capabilities.

Hypothesis 5: there is a significant relationship between top management support and knowledge process capabilities.

Hypothesis 6: there is a significant relationship between knowledge promotion and knowledge process capabilities.

Hypothesis 7: there is a significant relationship between IT support and knowledge process capabilities.

Hypothesis 8: there is a significant relationship between knowledge process capabilities and creative organizational learning.

Hypothesis 9: there is a significant relationship between creative organizational learning and organizational performance.

Measurement tool of study is questionnaire while personal interview is not used in order to have data that is not affected by environmental effects and have real ideas of respondents. Questioning through questionnaire would give more time to respondents to think also would allow researcher to study more samples and obtain better results.

Methodology:

Library method has been applied for data collection in this study. In library part, theoretical bases are collected from books, and expert Persian and Latin papers and data of study have been extracted through distribution of questionnaire among statistical population. Studies are classified to fundamental, applied and action research in terms of objective (Pasha Sharifi & Sharifi, 2004, P. 85). Methodology of this study is applied because its expected results can be applied within the promotion process of KM level.

Researches are classified to experimental and non-experimental in terms of control level of researcher on variables of study; experimental research is an organized and logical method to respond the this question that what would happen if the research was conducted under the controlled conditions in which, researcher manipulate environmental conditions or behaviors to assess its effect on changed situation and relationship between variables. In non-experimental research, the relationship between non-manipulated variables is studies and this study includes two types of causal-comparative, past-event and correlational study. Correlational study would investigate the relation between two or more variables and researcher would be able to study the simultaneous relation between several variables and one another variable also study the relation between independent variables as well as the effect of each variable on dependent variable removing correlation between dependent variables; hence, correlational method is the best

method in studies that a variable is affected by several variables (Pasha Sharifi & Sharifi, 2004, Pp. 90-100). Accordingly, methodology of this study is correlational.

As it was mentioned before, a comprehensive view in relation with KM infrastructures can better describe the relationship between KM infrastructures, knowledge process capabilities and organizational performance. Model of Lee et al (2012) has been used in this study to investigate mentioned relationships. KM infrastructures have been divided into 4 scopes of culture, structure, management and technology in this model and relevant factors to each of these scopes are as follows:

- Culture includes collaboration, trust and learning culture
- Structure includes decentralization
- Management includes top management support and promotion
- Technology includes IT support

KPC also include acquisition, transformation, application, preservation of knowledge as well as preventing knowledge from abuse.

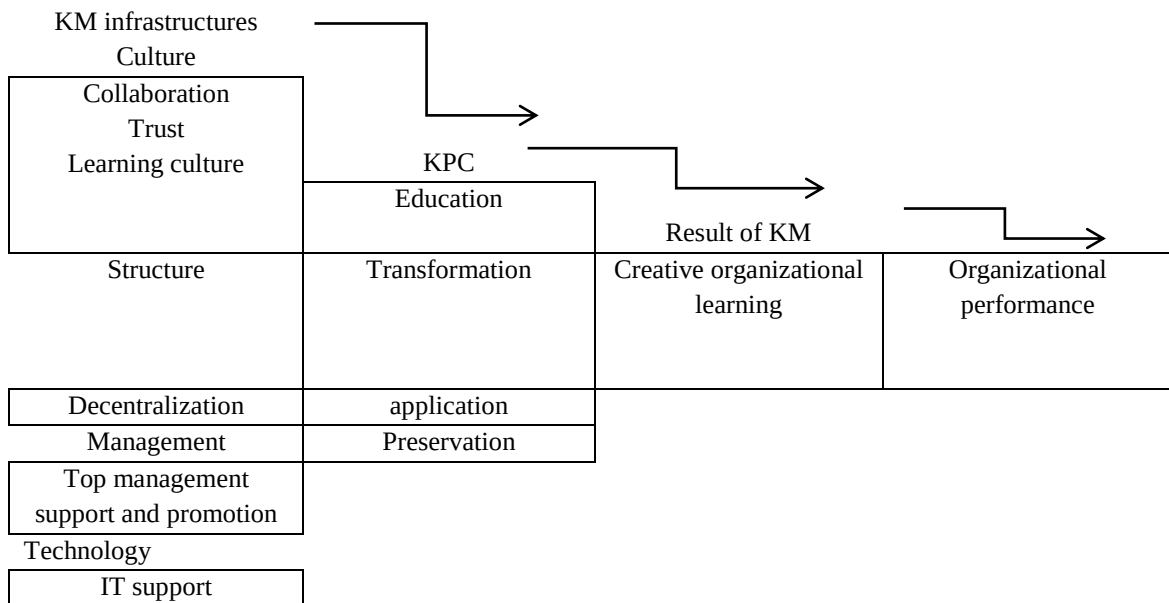


Diagram 1. KM infrastructures
Source:Lee et al, 2012, P. 185
(Sarmad, Bazargan and Hejazi, 2005)

Statistical population of study includes employees of petrochemical company of Mehr so that size of statistical population of study was obtained to 140 members. The sample size was obtained to 103 members using Morgan table. Questionnaire of this study includes two types of questions. First part of study includes identification questions that are related to respondents so that this information is applied in

data analysis and conclusion of questionnaire. Second part includes expert questions related to the subject of study. Variables of study as well as items and applied sources in questionnaire have been indicated in appendix 1.

One of the main matters of methodology is related to reliability of measurement tool. According to definition of this term, reliability of measurement tool is a degree and the obtained results can be obtained from re-measurement. In other words, the same results should be obtained when measurement tool is applied in the same situations. Reliability of questionnaire of this study was determined using Cronbach's alpha. Cronbach's alpha was applied in this study through SPSS software to determine whether the questions have been coordinated with goals and subject of study or they have been enough coherent or not. To assess the reliability of questionnaire, reliability coefficient was calculated using Cronbach's alpha after data analyzing. According to the obtained results, it was determined that designed questionnaire was reliable.

Cronbach's alpha is applied to assess the level of being one-dimensional of attitudes, ideas, etc. in fact, we are about to evaluate perception level of respondents about questions. The base of this coefficient is based on scales. Scale includes a number of figures allocated to persons, objects or behaviors in order to extract quantities from qualities. The most common applied scale in social studies is LIKERT scale. Assumption of LIKER scale is based on the equiponderate items. In this regard, each item is scored from 1 to 5 in accordance with 5-points LIKERT scale in which, the score of each person indicates the tendency of respondents.

Cronbach's alpha is calculated using one the following equations.

$$\alpha = \frac{k}{k-1} \left(1 - \frac{\sum_{i=1}^k S_i^p}{\sigma^p} \right) \quad \text{or} \quad \alpha = \frac{k\bar{C}}{\bar{V} + (k-1)\bar{C}}$$

In which, K is the number of questions, S_i^p is variance of question i, σ^p is total variance of questions, $\bar{C}$ is the average of covariance between questions, and $\bar{V}$ is the variance of mean of questions.

According to the definition of Cronbach's alpha, (1) the more positive correlation between questions, the higher level of Cronbach's alpha and reverse, (2) the more the mean variance of questions, the lower the Cronbach's alpha, (3) increase in number of questions can positively or negatively affect (in accordance with correlation type between questions) Cronbach's alpha, and (4) increased size of sample would lead to reduction in mean variance of question and increase in Cronbach's alpha.

Obviously, the closer the index of Cronbach's alpha to 1, the more internal correlation between questions will be and the more homogeneous questions. The obtained results of Cronbach's alpha for each of variables are as follows:

Table 1. The results of Cronbach's alpha test to assess reliability of questionnaire

Variable	Coefficient of Cronbach's alpha
Collaboration	0.268
Trust	0.845
Learning culture	0.904
Decentralization	0.899
Top management support	0.458
Promotion	0.494
IT support	0.843
Education	0.459
Transformation	0.855
Application	0.849
Preservation	0.439
Creative organizational learning	0.892
Performance	0.468
Capabilities of knowledge management process	0.259

Hypotheses of this study are obtained from a theoretical structure. For this purpose, specialized texts including books, papers, and other foreign and domestic scientific researchers have been studied before. Hypotheses design then the relevant ideas to this subject were placed in frame of 9 hypotheses. Hypotheses of this study are as follows:

Hypothesis 1: there is a significant relationship between collaboration and knowledge process capabilities.

Hypothesis 2: there is a significant relationship between trust and knowledge process capabilities.

Hypothesis 3: there is a significant relationship between learning culture and knowledge process capabilities.

Hypothesis 4: there is a significant relationship between decentralization and knowledge process capabilities.

Hypothesis 5: there is a significant relationship between top management support and knowledge process capabilities.

Hypotheses testing

Hypothesis 1. There is a significant relationship between collaboration and KPC.

Table 2. Summary of model of assessment of relationship between variable of collaboration and KPC

Model	Correlation coefficient	Coefficient of determination
1	0.190	0.036

According to table 2, correlation level between variable of collaboration and KPC has been obtained to 0.352 indicating correlation between them. Coefficient of determination is an important factor that explains the relationship between two variables of x and y. this coefficient is an index expressing the percentage of changes of fitness by regression models. In other words, this index indicates that what percentage of predicted values of dependent variable is coordinated with real values. It can be expressed about regression model of this study that 3/6% of changes in dependent variable are determinable by fitted regression model.

Statistical hypotheses of H_0 and H_1 can be described as follows in accordance with regression coefficient test in this model:

$$H_0 : b_1 = 0$$

$$H_1 : b_1 \neq 0$$

In this statistical hypothesis, significance level of following regression models is tested:

$$KPC = \beta_0 + \beta_1 \text{ Collaboration}$$

Table 3. Results of estimated regression coefficients of hypothesis 1

Variables of hypothesis 1	Coefficient value	Deviation	t	Sig level
Fixed value	3.362	0.263	12.786	0.000
Collaboration	0.128	0.066	1.940	0.055

Dependent variable: capabilities of knowledge management process (KPC)

Since sig level is obtained to 0.055 (>0.05), H_1 is not accepted and regression equation is not significant. Therefore, there is not a significant relationship between variables of collaboration and knowledge management capabilities in petrochemical company of Mehr.

Hypothesis 2. There is a significant relationship between trust and KPC.

Dependent variable: KPC

Table 4. Summary of model of assessment of relationship between variable of trust and KPC

Model	Correlation coefficient	Coefficient of
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		determination
2	0.496	0.246

According to table 4, correlation level between variable of trust and KPC has been obtained to 0.496 indicating correlation between them. It can be expressed about regression model of this study that 24.6% of changes in dependent variable are determinable by fitted regression model. Statistical hypotheses of H_0 and H_1 can be described as follows in accordance with regression coefficient test in this model:

$$H_0 : b_1 = 0$$

$$H_1 : b_1 \neq 0$$

In this statistical hypothesis, significance level of following regression models is tested:

$$KPC = \beta_0 + \beta_2 \text{ Trust}$$

Table 5. Results of estimated regression coefficients of hypothesis 2

Variables of hypothesis 2	Coefficient value	Deviation	t	Sig level
Fixed value	2.721	0.201	13.511	0.000
Collaboration	0.290	0.051	5.738	0.000

Dependent variable: capabilities of knowledge management process (KPC)

Since sig level is obtained to 0.055 (<0.05), H_1 is accepted and regression equation is significant. Therefore, there is a significant relationship between variables of trust and knowledge management capabilities in petrochemical company of Mehr. Hence, the model of hypothesis 2 is as follows:

$$KPC = 2.721 + 0.290 \text{ Trust}$$

Hypothesis 3. There is a significant relationship between learning culture and KPC.

Dependent variable: KPC

Table 6. Summary of model of assessment of relationship between variable of learning culture and KPC

Model	Correlation coefficient	Coefficient of determination
3	0.483	0.233

According to table 6, correlation level between variable of learning culture and KPC has been obtained to 0.483 indicating correlation between them. It can be expressed about regression model of this study that 23.3% of changes in dependent variable are determinable by fitted regression model.

Statistical hypotheses of H_0 and H_1 can be described as follows in accordance with regression coefficient test in this model:

$$H_0 : b_1 = 0$$

$$H_1 : b_1 \neq 0$$

In this statistical hypothesis, significance level of following regression models is tested:

$$KPC = \beta_0 + \beta_3 \text{ Learning culture}$$

Table 7. Results of estimated regression coefficients of hypothesis 3

Variables of hypothesis 3	Coefficient value	Deviation	t	Sig level
Fixed value	2.582	0.233	11.063	0.000
Collaboration	0.324	0.058	5.541	0.000

Dependent variable: capabilities of knowledge management process (KPC)

Since sig level is obtained to 0.055 (<0.05), H_1 is accepted and regression equation is significant. Therefore, there is a significant relationship between variables of learning culture and knowledge management capabilities in petrochemical company of Mehr. Hence, the model of hypothesis 3 is as follows:

$$KPC = 2.582 + 0.324 \text{ Learning culture}$$

Hypothesis 4. There is a significant relationship between decentralization and KPC.

Dependent variable: KPC

Table 8. Summary of model of assessment of relationship between variable of decentralization and KPC

Model	Correlation coefficient	Coefficient of determination
4	0.525	0.276

According to table 8, correlation level between variable of decentralization and KPC has been obtained to 0.525 indicating correlation between them. It can be expressed about regression model of this study that 27.6% of changes in dependent variable are determinable by fitted regression model.

Statistical hypotheses of H_0 and H_1 can be described as follows in accordance with regression coefficient test in this model:

$$H_0 : b_1 = 0$$

$$H_1 : b_1 \neq 0$$

In this statistical hypothesis, significance level of following regression models is tested:

$$KPC = \beta_0 + \beta_4 \text{ Decentralization}$$

Table 9. Results of estimated regression coefficients of hypothesis 4

Variables of hypothesis 4	Coefficient value	Deviation	t	Sig level
Fixed value	2.604	0.205	12.684	0.000
Collaboration	0.315	0.051	6.200	0.000

Dependent variable: capabilities of knowledge management process (KPC)

Since sig level is obtained to 0.055 (<0.05), H_1 is accepted and regression equation is significant. Therefore, there is a significant relationship between variables of learning culture and knowledge management capabilities in petrochemical company of Mehr. Hence, the model of hypothesis 4 is as follows:

$$KPC = 2.604 + 0.315 \text{ Decentralization}$$

Hypothesis 5. There is a significant relationship between top management support and KPC.

Dependent variable: KPC

Table 10. Summary of model of assessment of relationship between variable of decentralization and KPC

Model	Correlation coefficient	Coefficient of determination
5	0.457	0.209

According to table 10, correlation level between variable of decentralization and KPC has been obtained to 0.457 indicating correlation between them. It can be expressed about regression model of this study that 20/9% of changes in dependent variable are determinable by fitted regression model.

Statistical hypotheses of H_0 and H_1 can be described as follows in accordance with regression coefficient test in this model:

$$H_0 : b_1 = 0$$

$$H_1 : b_1 \neq 0$$

In this statistical hypothesis, significance level of following regression models is tested:

$$KPC = \beta_0 + \beta_5 \text{ Top management support}$$

Table 11. Results of estimated regression coefficients of hypothesis 5

Variables of hypothesis 5	Coefficient value	Deviation	t	Sig level
Fixed value	2.867	0.195	14.683	0.000
Collaboration	0.252	0.049	5.170	0.000

Dependent variable: capabilities of knowledge management process (KPC)

Since sig level is obtained to 0.055 (<0.05), H_1 is accepted and regression equation is significant. Therefore, there is a significant relationship between variables of learning culture and knowledge management capabilities in petrochemical company of Mehr. Hence, the model of hypothesis 5 is as follows:

$$KPC = 2.867 + 0.252 \text{ Top management support}$$

Stepwise regression was applied in previous part to test hypotheses of study. In this part, significance or insignificance relationship between general questions of study has been applied through t test with independent sample 1 and variance analysis. To determine the presence or lack of relationship between gender and other variables of study, t test with independent sample was applied because variable of gender includes only two groups.

Table 12. Results of t test with independent sample to determine the relationship of gender with variables of study

Variable	t value	df	Sig level	Result
Collaboration	1.161	101	0.248	There is not significant relationship
Trust	1.927	101	0.057	There is not significant relationship
Learning culture	2.110	101	0.037	There is a significant relationship
Decentralization	2.155	101	0.034	There is a significant relationship
Top management	2.263	101	0.026	There is a significant

support				relationship
Promotion	1.692	101	0.094	There is not significant relationship
IT support	2.429	101	0.017	There is a significant relationship
Education	1.556	101	0.044	There is not significant relationship
Transformation	2.053	101	0.044	There is a significant relationship
Application	1.604	101	0.112	There is not significant relationship
Preservation	0.883	101	0.379	There is not significant relationship
Creative organizational learning	1.466	101	0.146	There is not significant relationship
Performance	-0.843	101	0.401	There is not significant relationship
KPC	3.060	101	0.003	There is a significant relationship

According to table 12, there is a significant difference between perspectives of men and women toward some variables of study including learning culture, decentralization, top management support, IT support, transformation and capabilities of knowledge management process in accordance with ($\text{Sig} < 0.05$). This difference can be perceived based on the mean differences of each variable between men and women groups.

Conclusion:

Today, all scientific and work groups believe that they should work based on the knowledge and science if they want a continuous presence in world of trade and competition. Although knowledge is a vital source for survival of companies as well as success factor to access to a deep understanding at all levels of organizations, but many of organizations have not paid attention to knowledge management yet. At organizational level, knowledge management is along with several interests such as promotion of performance of the company through efficiency, productivity, quality and innovation. Those organizations that have high level in field of knowledge management are able to respond the rapid environmental changes and expansion of innovative ideas in products and services improving their performance.

Conducted studies in relation with knowledge management have not considered all aspects of knowledge management infrastructures or they have not had a comprehensive view in this field. This study was

conducted to present a general view in relation with mentioned infrastructures and its effect on performance of organization. This study included 9 hypotheses. The main purpose of this study was to assess the relationship between knowledge management infrastructures and organizational performance of petrochemical company of Mehr. Then the effect of KPC on creative organizational learning was assessed as well as the effect of creative organizational learning on organizational performance. To assess the relationship between each of aspects of KM infrastructures as well as the relationship between KPC and creative organizational learning, stepwise regression model was applied. A comprehensive view in relation with KM infrastructures can better describe the relationship between KM infrastructures, KPC and organizational performance. Estimated model by Lee et al (2012) was applied in this study to investigate the mentioned relations.

KPC includes education, knowledge transformation, knowledge application, knowledge preservation and preventing from knowledge abuse. Collaboration means that people help each other in a group through activities. Participating culture is required in order to share knowledge and science and organizations have emphasized on the importance of mutual and supportive relationship to expand the interaction between organization members in order to share various opinions. Collaboration culture can effect on knowledge creation through open communications and increase in knowledge exchange. Collaboration would support the common perception from internal and external environment of organization through individual communications and exchanges. In fact, participation in R&D and participation in knowledge transfer and technology development effect on inter-organizational relationships. Many of conducted studies consider collaboration as one of the main factors in knowledge creation and transfer. Knowledge is the power source making differences between hierarchical positions of organization members. Therefore, knowledge sharing indicates power sharing. However, knowledge sharing would threaten hierarchical positions of organizations' members and they might lose their competitive power. High level of trust might reduce the danger of losing individual competition as well as knowledge sharing. Trust can be defined as keeping mutual faith in terms of intention and behavior. Lack of trust is a considerable obstacle against knowledge sharing. When persons have a high-level trust in their relationships would tend to knowledge exchange and social interaction. Increase in trust among organization members is the necessity of knowledge transfer and lack of trust would make employees to hide their knowledge.

Learning culture is defined as a degree that encourages organization to learn toward various tools. Organizational learning is based on individual learning occurring in mind of persons. Therefore, emphasizing on individual learning would lead to increased expectations of knowledge growth in organizations. Hence, organizations should concentrate on both fields of individual and group learning to improve organizational performance. Decentralization indicates dispersion level of decision-making power through organization and centralization points to the degree of decision-making power in a centralized organization. Power dispersion would lead to promotion of self-courage, experience and freedom of expression. Centralization of power is a barrier for creative solutions that are essential for knowledge creation. Many of researchers have emphasized on the role of top management in knowledge management. Top management support is related to organizational view and strategy leading to knowledge sharing and knowledge application among organization members.

Therefore, top management strongly effects on organizational culture, norms and strategic actions. A serious obstacle for knowledge transfer is that top management does not believe in importance of knowledge management. According to the obtained results from statistical analysis of all relevant variables to KM infrastructures in this study, it was emphasized on the relationship between variables of trust, learning culture, decentralization, top management support, knowledge promotion, IT support and knowledge process capabilities. On the other hand, the relationship between variables of knowledge management process and creative organizational learning was confirmed. Finally, the relationship between variable of creative organizational learning and organizational performance was accepted.

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