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Measuring the Effect of the Perception of Knowledge Management on its Utilization in Public Sector in Jordan: A comparative Study to Determine the Change in the Utilization of Knowledge Management Between 2004 – 2013

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Abstract
This study aimed to trace the development of the implementation of knowledge management initiatives in the public sector institutions in Jordan. The study was compared with precedent study had been conducted in 2004. The results showed there is very little progress in knowledge management utilization in the Jordanian government institutions compared to 2004. Also, the study suggested a set of recommendations to enhance the utilization of knowledge management in the Jordanian government institutions**.**
Keywords: Knowledge Management (KM), Knowledge Creation, Knowledge Transfer and Sharing, Knowledge Utilization, Implicit Knowledge, Explicit Knowledge, Public sector, Jordan

1. Introduction

Today, the world is witnessing a huge, multifaceted wave of change, and social change is one of the most important faces of that wave. The impact of such change varies between one person and another, and the change process towards knowledge society is social rather than economic. The change process affects the lives of individuals, and decisions taken by them in regard of the learning/ teaching mechanisms, the type of implemented action and lived life style. The social change is accompanied with economic and manufactural change, which includes introducing globalization, collapsing commercial barriers and borders (Wiig, 1993, Xiii).
Worldwide organizations seek continuous survivor under these sharp changes, developments and dynamic world. Organizations survivor cannot be achieved unless they have competitive advantages that can be achieved by knowledge. Heibeler (1996, 22) explained that organizations competitive advantages can be obtained by developing better knowledge management practices. Also, Kothuri (2002, 5) elaborates that knowledge is a competitive advantage in its self, and organizational competitive advantage is a hardly imitated resource and highly protected product. Pan and Scarbrough (1998, 55) ensure that knowledge is the most important resource in achieving competitive advantage.
Nonaka (1998, 23) explained the importance and roles of knowledge management in achieving excellence in organizations. For instance, Japanese companies such as Honda, Canon, Matsushita, NEC, Sharp and Kao; have achieved huge success and familiarity because of its rapid response to changes in the needs of customers, development of new products, and control of emerging technologies. In addition, the secret of such success is the generation of new knowledge. As a result, formal systematic knowledge is the most useful type of knowledge. The main measurements of the value of newly generated knowledge are quantitative, such as: increased efficiency, lower costs, and improved return on investment.

2. Theoretical Background

2.1 Knowledge:

Barnes (2002, 35), Stettner (2000, 27), Warner & Witzel (2004, 51 - 53), Wiig (1993, 73) and others had defined Knowledge as the sum of facts, views, opinions, judgments, working methods, experiences and information, data, concepts, strategies, and principles held by an individual or organization. Additionally, knowledge is used to interpret information related to a particular circumstance or situation, and to address this circumstance and this situation.

2.2 Knowledge Management:

Wiig (1993, 16), Cross (Little et al., 2002, 9), Capshaw & Frappaolo (1999, 44), Gartner Group (1998, 5), Dorothy Yu (Zerega, 1998, 16), Griffiths (1997, 62) and Fearnley and Horder (1997, 25) have defined knowledge management as the process of analyzing, combining, evaluating and implementing changes related to knowledge in order to achieve goals that have been set in an intentionally organized and purposeful manner. In

other words, knowledge management is the process of managing organizational knowledge in order to create value for business and generate competitive advantage.

2.3 Benefits of Knowledge Management:

Primarily, knowledge management implementation helps organization to achieve excellence by: improving innovation, increasing productivity, reducing costs, enhancing decision making process, increasing customer satisfaction, increasing creativity, promoting employees collaboration, enhancing work implementation within the organization (Myers, 2004, 32; Wickham, 2001, 223; Wiig, 1994, 25).

2.4 Sources of obtaining Knowledge:

Mainly, Marquardt (2002, 47) and Cullen (2005, 425) have mentioned two sources to obtain knowledge, which are: internal and external. The internal sources are the tacit knowledge such as: experiences, beliefs, assumptions, memories and memoirs of individuals. In addition, internal sources include explicit knowledge such as: documents and databases. By contrast, external sources include the following processes such as: benchmarking, participating in conferences, renting experts, following-up newspapers (e.g. magazines and published articles) on the World Wide Web, watching TV and videos, monitoring economic and social trends and technological developments, gathering information and data from customers and competitors and suppliers, cooperating with other organizations, and creating alliances and Joint ventures.

2.5 Types of Knowledge:

Knowledge has two types, which are: tacit knowledge and explicit knowledge. The tacit knowledge is a complex (i.e. composite) knowledge that is polished and accumulated in form of know- how and understanding in the peoples' minds. By contrast, explicit knowledge is a knowledge that can be expressed by words, numbers, sound, data sharing, scientific equations, visuals, product specifications, and manuals. Accordingly, explicit knowledge can be transferred, tested, and used by individuals easily, since it can be formed and organized in documents, procedures, software, or any other form. Consequently, it is a public knowledge and common experiences, can be shared, accumulated, transferred, and analyzed. Therefore organizations seek increment of knowledge stockpiles as part of the learning process (Balogun & Hailey, 2004, 67-68; Cullen, 2005, 311; Nonaka & Takeuchi, 2004, 3; Wiig, 1993, 207).

2.6 Processes of Knowledge management

Mainly, processes of knowledge management are practices to implement knowledge management in organizations. The most important processes are: knowledge creation, knowledge transfer and sharing, and organizational learning. Although, researchers indicate that processes can include other kinds such as: encoding, storage, and retrieval.

2.6.1 Knowledge creation: Essentially, two issues are raised by talking over knowledge creation process, namely: levels of knowledge creation, and stages of knowledge conversion. In regard of knowledge creation levels (Nonaka and Takeuchi, 1995, 47) suggested their theory on creation of organizational knowledge, and proposed that the key to create such knowledge is to convert tacit knowledge (i.e. individual knowledge) to an explicit knowledge (i.e. organizational knowledge). The previous theory, suggested four levels for knowledge creation, which are: individual level, group level, organizational level and Inter-organizational level. Additionally, knowledge conversion phases are also called "conversion of knowledge" which means converting tacit knowledge to explicit knowledge, and vice versa. However, Nonaka and Takeuchi (2004, 54 & 66) Nonaka (1998, 28) Wickham (2001, 349) and Warner & Witzel (2004, 91 - 93) argue that organization cannot create knowledge on their own. In details, organization must collect and accumulate tacit knowledge at the individual level, and then expanded through different modes of knowledge conversion process to be generated. Remarkably, knowledge conversion process is consisted of the following four modes, which are: **(a) Socialization:** is the conversion of tacit knowledge to tacit knowledge **(b) Externalization:** is the conversion of tacit knowledge to explicit knowledge **(c) Combination:** is the conversion of explicit knowledge to explicit knowledge and **(d) Internalization:** is the conversion of explicit knowledge to tacit knowledge. Importantly, knowledge creation abilities are essential for achieving continuous competitive advantage (Warner & Witzel, 2004, 91 - 93). (Marquardt, 2002, 33) suggested that knowledge creation can be done by number of processes that extend from challenging creativity, to hard research. Additionally (Marquardt, 2002, 33) explained that knowledge generated by solving the problem and experimentation, can be most valuable to the organization. Therefore, organization must support and stimulate knowledge-creating activities performed by individuals. The support can be done by providing the right environment for individuals.

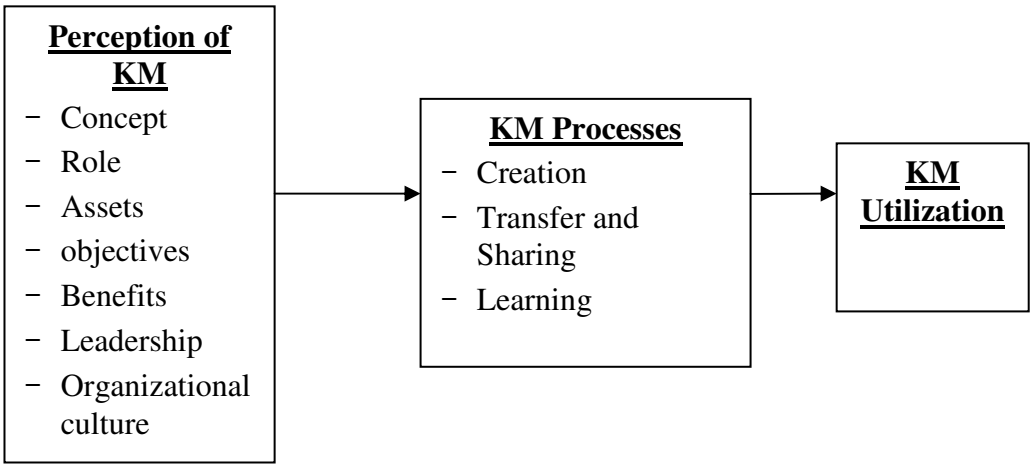
2.6.2 Knowledge Sharing: Fundamentally, Knowledge transfer process is the first and important step in the knowledge sharing process (Coakes, 2003, 42; Szulanski, 1996, 43; Zmud, 2000, 15 – 28; Earl, 1998, 48) because it focuses on "appropriate" delivery of knowledge to the "appropriate" person in the "proper" time, form, and cost, taking in mind that knowledge creation process, in its self, will not achieve the high performance unless the created knowledge transferred and shared throughout the organization, and utilized properly. This will reduce transference costs and increase organizational performance. In order to get the utmost benefits of knowledge management, Puccinelli (1998, 40) emphasizes the concept of knowledge sharing, because the environment which encourages knowledge creation will lead to create new knowledge (Marshall et., al., 1996, 77) despite voluntary knowledge sharing is difficult among users. Therefore, Bhatt (2001, 68-75) points to the importance of transferring, disseminating and sharing knowledge across the organization. Additionally, Bhatt (2001, 68-75) explained the positive impact of the interaction between technologies, techniques, and individuals over the effectiveness of knowledge distribution.

2.6.3 Learning: Wiig (1993, 183) defines organizational learning as the process of acquiring and internalizing new knowledge. Furthermore, Nancy Dixon (Little et. Al., 2002, 264) explains organizational learning as organization ability of utilizing the mental capacity of its members to create operations that enhances its ability to learning. Moreover, organizations aiming to achieve success, survival, sustainability, and profitability, need to learn from its experiences, researches, observations of what others do, and from any other available source, so new knowledge may become available to all stakeholders in a timely manner, easily and conveniently (Wiig, 1993, 188).

3. 2004 Study Background

The researcher (Hijazi, 2004) had conducted a study to measure the impact of perception of knowledge management on utilizing it in Jordanian organizations. Furthermore, recommendations had included re-examination of utilizing KM in Jordanian organizations, after at least four years, to determine the change in using of KM, and with the use of the same model. The model measures independent, moderating, and dependent variables to utilize KM. The measurement reflects impact of perceptions of both Jordanian public and private organizations in terms of knowledge management concept, role, assets, objectives, and benefits. Additionally, perception can be measured in terms of roles of leadership and organizational culture (independent variables) on the utilization of KM (dependent variable). Also, the model examines processes of knowledge management such as: knowledge creation, knowledge transfer and sharing, and organizational learning (moderating variable) and its impact on the utilization of KM at those organizations. Therefore, researcher had formed three key variables, which are: Perception (i.e. independent variable), Operation (i.e. moderating variable), and Utilization (i.e. dependent variable). The variables have been examined within Jordanian environment that deals with knowledge management as a modern administrative concept.

Figure (1)
The suggested Model for the study of 2004



4. Problem of current study

This current study attempts to determine degree of change in utilizing knowledge management within organizations of public sector in Jordan for the year 2013 compared with 2004. Evidently, the study uses model that had been used in 2004 (Hijazi, 2004) with a slight amendment (i.e. deleting concept and role from 2004 model, and combining objectives and benefits).

5. Importance of current study

This study is important since it is an implementation to one of the recommendations of the study, which took place in 2004 in terms of the re-examination of the model that had been designed previously, to see how the change in the use of knowledge management in the public sector of Jordan during the years 2004 - 2013, and to assist decision makers in these organizations to address the imbalance if it exists.

6. Objectives of current study

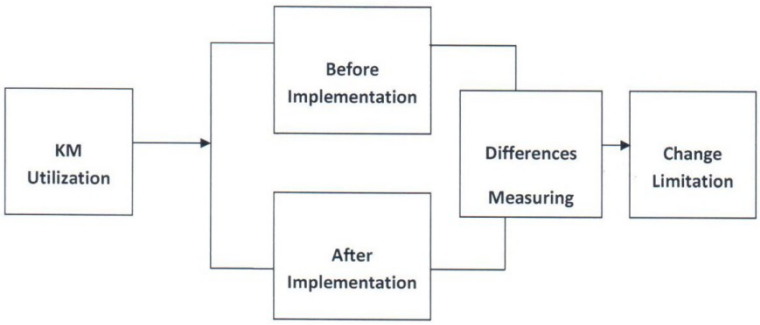
The present study aimed to:

1- Determine if there is a change in the knowledge management utilization in the Jordanian public organizations in comparison with 2004.
2- Determine the necessary improvements required to develop a successful knowledge management system in Jordanian organizations.
3- Measuring degree of success of knowledge management initiatives that have been applied in Jordanian organizations.

7. Model of current study

The model of the current study determines extent of change in utilization of knowledge management in Jordanian public organizations. The model compares results of this study with the achieved results of 2004 study, according to the following model:

Figure (2)
Model of Current Study



8. Hypotheses of current study

8.1 The first group (impact of the independent variable on the moderating variable / knowledge creation process):

Ho1: There are no statistically significant differences (α <.05) of the impact of knowledge assets on knowledge creation before and after application of the model

Ho2: There are no statistically significant differences (α <.05) of the impact of the objectives and benefits of knowledge on knowledge creation before and after application of the model

Ho3: There are no statistically significant differences (α <.05) of the impact of leadership on knowledge creation before and after the application of the model

Ho4: There are no statistically significant differences (α <.05) of the impact of organizational culture on knowledge creation before and after the application of the model

8.2 The second group (impact of independent variable on the moderating variable / process of knowledge transfer and sharing):

Ho5: There are no statistically significant differences (α <.05) of the impact of knowledge assets on knowledge transfer and sharing before and after the application of the model

Ho6: There are no statistically significant differences (α <.05) of the impact of the objectives and benefits of knowledge on knowledge transfer and sharing before and after the application of the model

Ho7: There are no statistically significant differences (α <.05) knowledge of the impact of the leadership on knowledge transfer and sharing before and after the application of the model

Ho8: There are no statistically significant differences (α <.05) of the impact of the organizational culture on knowledge transfer and sharing before and after the application of the model

8.3 The third group (impact of independent variable on the moderating variable / process of organizational learning)

Ho9: There are no statistically significant differences (α <.05) of the impact of knowledge assets on organizational learning before and after the application of the model

Ho10: There are no statistically significant differences (α <.05) of the impact of the objectives and benefits of knowledge on organizational learning before and after the application of the model

Ho11: There are no statistically significant differences (α <.05) of the impact of the leadership on organizational learning before and after the application of the model

Ho12: There are no statistically significant differences (α <.05) of the impact of organizational culture on the organizational learning before and after the application of the model

8.4 The fourth Group (impact of moderating variable on the dependent variable)

Ho13: There are no statistically significant differences (α <.05) of the impact of the knowledge creation process on KM utilizing before and after the application of the model

Ho14: There are no statistically significant differences (α <.05) of the impact of knowledge transfer and sharing process on KM utilizing before and after the application of the model

Ho15: There are no statistically significant differences (α <.05) of the impact of the organizational learning process on KM utilizing before and after the application of the model

8.5 The Fifth Group (impact of the independent variable on the dependent variable)

Ho16: There are no statistically significant differences (α <.05) of the impact of knowledge assets on KM utilizing before and after the application of the model

Ho17: There are no statistically significant differences (α <.05) of the impact of the objectives and benefits of knowledge on KM utilizing before and after the application of the model

Ho18: There are no statistically significant differences (α <.05) of the impact of the leadership on KM utilizing before and after the application of the model

Ho19: There are no statistically significant differences (α <.05) of the impact of the organizational culture on KM utilizing before and after the application of the model

9. Methodology

9.1 Population and sample of current study: The population of the study is compromised of all Jordanian public organizations. Moreover; the study was applied to (21) organizations. Beside, number of individual respondents included within the study is (385) individuals. Notably, 2004 study had used the same population and sample where 2004 group was considered as a control group. However, population and sample of 2013 study was considered as an experimental group.

Tools of current study: The study used the same tool that had been used in the 2004 study to measure the variables.

10. The study analysis and results

10.1Description of variables and hypothesis testing:

Table (1)
Arithmetic averages and standard deviations for the variables of the current study compared to 2004

The level of significance	value	2004		2013		Variable
		Standard Deviation	Arithmetic Mean	Standard Deviation	Arithmetic Mean	
0.000	13.183	0.824	3.266	.551	3.932	Knowledge Assets
0.000	9.442	0.844	3.152	.708	3.681	KM Objectives and Benefits
0.000	6.788	0.789	3.888	.665	4.245	Leadership
0.000	4.298	0.797	3.348	.611	3.568	Organizational Culture
0.000	7.832	0.796	3.276	.661	3.689	Knowledge Creation
0.000	9.224	0.769	3.097	.552	3.542	Knowledge Transfer and sharing
0.155	1.422	0.640	3.691	.647	3.757	Learning
0.007	2.688	0.623	3.519	.636	3.641	Km Utilization

According to Table (1) the arithmetical averages for all variables (i.e. independent, dependent and moderating) of both of the studies (i.e. both 2004 and 2013) were valued higher than (3). Therefore, results of arithmetical averages indicate that the perception of KM, practices of KM and utilization of KM in organizations are in a positive manner. Besides, the value of the standard deviations for all variables (i.e. Independent, dependent and intermediate) of the study (i.e. both 2004 and 2013) were less than (1) which indicates that answers have an acceptable degree of homogeneity.

Also, the table shows that arithmetic means for 2013 are larger than athematic means for 2004. This indicates a positive change, by the descriptive standard, KM perception in Jordanian organizations in terms of: assets, objectives and benefits, leadership, and culture, as well for Km processes (i.e. creation, transfer and sharing, and organizational learning).

In addition, values of t-test are statistically significant at the level (0.05) for the year 2013, because arithmetic means are the largest. As a result, there is a positive change in the deductive standard regarding the perception of KM in terms of assets, objectives and benefits, leadership, and culture, as well KM processes (creation, transfer and sharing, and learning) and utilization in Jordanian organizations.

10.2 Path Analysis Test Results:

10.2.1 Results of the Study for 2004

During the study which was conducted in 2004, the researcher tested the model in question (Figure 1). After analyzing the data that was obtained at the time, the researcher re-analyzed the model statistically using the method of path analysis to determine the direct and indirect impact for the sub-independent variables, main-independent variable, sub-moderating variables, and the main- moderating variable in the dependent variable.

The analysis of the multiple regressions through the model had clarified that knowledge creation, transfer and sharing, and learning affect utilization of KM in an individual manner. The value of Beta (Standardized Coefficients): (0.412) and (0.252) and (0.312), respectively. Besides, knowledge creation is impacted directly by the perception of KM assets, goals, and organizational culture. Particularly, implication happens since the value of Beta respectively is: (0.199) and (0.210) and (0.45). This conclusion was shown by testing the impact of dimensions of knowledge management perception on the creation process. Also, this conclusion was shown by testing of multiple regressions. Finally, Zero - Order Correlation test proved that the benefits, and leadership indirectly affect the knowledge creation, since this process is linked to a meaningful relationship with assets, objectives and organizational culture.

Additionally, knowledge sharing is impacted directly by assets, objectives, and the organizational culture. Particularly, implication happens since the value of Beta respectively is: (0.154) and (0.228) and (0.514). This conclusion was shown by testing the impact of dimensions of knowledge management perception on knowledge sharing process. Also, this conclusion was shown by testing of multiple regressions. At last not the least, Zero - Order Correlation test proved that the concept, role, benefits, and leadership indirectly affect knowledge sharing process. Specially; the sharing process is linked to a meaningful relationship with assets, objectives, and culture. As well, organizational learning process is impacted directly by the perception of km dimensions (i.e. assets, benefits, leadership, and culture). Particularly, implication happens since the value of Beta respectively is: (0.146), (0.140), (0.261)and (0.353). Also, this conclusion was shown by testing of multiple regressions. At last not the least, Zero - Order Correlation test proved that the objectives indirectly affect the learning process. Specially; the learning process is linked to a meaningful relationship with assets, objectives, leadership and culture.

10.2.2 Results of current Study for 2013:

In order to test the hypotheses of the current study, Amos 16 has been used. Moreover, the results of the direct and indirect implications of KM perception showed the following:

Table (2)
Results of Path Analysis Test for the Current Study

level of significance	critical value	standard error	Approximation	Moderating variable	Independent variable
.058	1.896	.078	.120	Knowledge creation	Knowledge Assets
.013	2.471	.076	.187	knowledge creation	KM Objectives & Benefits
.008	2.634	.051	.136	Knowledge Creation	Leadership
.000	8.114	.070	.571	Knowledge creation	Organizational Culture
.707	-.375	.078	-.029	Knowledge transfer & Sharing	Knowledge Assets
.005	1.844	.075	.139	Knowledge transfer & Sharing	KM Objectivess & Benefits
.000	3.883	.051	.199	Knowledge transfer & Sharing	Leadership

.000	6.516	.070	.456	Knowledge transfer & Sharing	Culture
.000	4.545	.086	.391	Learning	Knowledge Assets
.141	-1.471	.083	-.122	Learning	KM Objectives & Benefits
.350	-.935	.057	-.053	Learning	Leadership
.000	9.386	.077	.725	Learning	Culture
level of significance	critical value	standard error	Approximation	Dependent Variable	Moderating Variable
.000	3.584	.068	.242	Km utilization	Knowledge creation
.227	1.209	.068	.082	Km utilization	Knowledge transfer & Sharing
.000	8.330	.062	.512	Km utilization	Learning
level of significance	critical value	standard error	Approximation	Dependent Variable	Independent Variable
.093	1.679	.069	.116	Km utilization	Knowledge Assets
.461	-.738	.064	-.047	Km utilization	KM Objectives & Benefits
.009	2.603	.045	.137	Km utilization	Leadership
.710	.372	.088	.033	Km utilization	Culture

70%	Explanation Coefficient R2 for knowledge creation
58%	Explanation Coefficient R2 for Knowledge Transfer and Sharing
63%	Explanation Coefficient R2 for Organizational Learning
78%	Explanation Coefficient R2 For Knowledge utilization

10.2.2.1 The First Group (Impact of Sub-independent variables on Sub- moderating variable/ knowledge creation process)

The results of the study had shown no implication of perception role of the knowledge assets on the knowledge creation process at the level of (β = .120, P <0.05). Therefore, this study accepts the null hypothesis (Ho1) which argues that no impact of perception role of the knowledge assets on knowledge creation process at the level of (P<0.05). Also, the results of the study had shown implication of perception goals and benefits of the KM on the knowledge creation process at the level of (β = .187, P <0.05). As a result, this study rejects the null hypothesis (Ho2) and accepts the alternative hypothesis which shows implications of the effect of a statistically significant (α <.05) for the perception of goals and benefits of KM on the knowledge creation process. Besides, the results of the study had shown implication of perception role of leadership on the knowledge creation process at the level of (β = .136, P <0.05). Consequently, this study rejects the null hypothesis (Ho3) and accepts the alternative hypothesis which shows implications of the effect of a statistically significant (α <.05) to the perception of role of leadership on the knowledge creation process. Additionally, the results of the study had shown implication of perception role of culture on the knowledge creation process at the level of (β = .571, P <0.05). Therefore, this study rejects the null hypothesis (Ho4) and accepts the alternative hypothesis which shows implications of the effect of a meaningful statistics to perception the impact of the role of culture on knowledge creation process.

10.2.2.2 The Second Group (Impact of Sub-independent variables on Sub-moderating variable/ knowledge transfer and sharing)

The results of the study had shown no implication of perception role of the knowledge assets on the knowledge transfer and sharing process at the level of (P <0.05). Therefore, this study accepts the null hypothesis (Ho5) which argues that no statistically significant impact at level of (P<0.05) to the perception of the role of the knowledge assets on knowledge transfer and sharing process (β=-.029, P>0.05). Also, the results of the study had shown implication to perception role of KM goals and benefits on the knowledge transfer and sharing process. Therefore, the null hypothesis (Ho6) is rejected, and we accept the alternative hypothesis that argues implications of the effect of a statistically significant (α <.05) to perception of the KM goals and benefits on knowledge transfer and sharing process. Results, as well, shows that there is an implication to the perception of the role of leadership on knowledge sharing and transfer at the level of (β =.199, P <0.05). As a result, this study rejects the null hypothesis (Ho7) and accepts the alternative hypothesis which shows statistically significant implications at level of (α <.05) of leadership role on the knowledge transfer and sharing process. Besides, the results of the study had shown implication of perception of the role of culture on the knowledge transfer and sharing process at the level of (β = .456, P <0.05). Consequently, this study rejects the null hypothesis (Ho8) and accepts the alternative hypothesis which shows implications of the effect of a statistically significant (α <.05) to the perception of the roles of culture on the knowledge transfer and sharing process.

10.2.2.3 The Third Group (Impact of Sub-independent variables on Sub- moderating variable/ organizational learning process):

The results of the study had shown implication of perception the role of the knowledge assets on the organizational learning process at the level of (β=.391, P<0.05). Therefore, this study rejects the null hypothesis (Ho9) and accepts the alternative hypothesis which argues that statistically significant impact exists at level of (P<0.05) to the perception of the role of the knowledge assets on the organizational learning process. The results, also, had shown that there is no impact of the perception of the role of KM goals and benefits on the organizational learning process. Therefore, the null hypothesis (Ho 10) that argues that there is no impact of the perception of the KM goals and benefits on the organizational learning process (β=-.122, P>0.05) of the effect of statistically significant (α <.05) is accepted. Also, the results of the study had shown that there is an impact of the perception of the role of leadership on the organizational learning process. As a result, this study rejects the null hypothesis (Ho11) which shows no statistically significant implications at level of (α <.05) of recognizing leadership role in the organizational learning process (β=-.053, P<0.05). Besides, the results of the study had shown an impact of perception the role of culture on the organizational learning process at the level of (β =.725, P <0.05). Consequently, this study rejects the null hypothesis (Ho12) and accepts the alternative hypothesis which shows implications of the effect of a statistically significant (α <.05) to the perception of the role of culture on the organizational learning process.

10.2.2.4 The Fourth Group (Impact of Sub-moderating variables on the dependent variables):

The results of the study had shown an impact of knowledge creation process on utilizing KM in the researched organizations at the level of (β=.242, P<0.05). Therefore, this study rejects the null hypothesis (Ho13) and accepts the alternative hypothesis which argues that statistically significant impactions exist at level of (α<.05) of the knowledge creation process to utilize KM in the researched organizations. However, the results of the study did not show an impact of knowledge transfer and sharing on utilizing KM in the researched organizations at the level of (β=.082, P>0.05). As a result, this study accepts the null hypothesis (Ho14) which shows statistically significant implications at level of (α <.05) of knowledge transfer and sharing process in utilizing KM in the researched organizations. Besides, the results of the study had shown implication of organizational learning process in utilizing Km in the researched organizations at the level of (β =.512, P <0.05). Consequently, this study rejects the null hypothesis (Ho15) and accepts the alternative hypothesis which shows implications of the effect of a statistically significant (α <.05) of organizational learning process in utilizing KM in the researched organizations.

10.2.2.5 The Fifth Group (Impact of Sub-independent variables in the dependent variables):

The results of the study had shown no implication of perception knowledge assets in utilizing KM in the researched organizations. Therefore, this study accepts the null hypothesis (Ho16) which argues that no statistically significant impactions exist at level of (α<.05) to the perception of the role of knowledge assets in utilizing KM in the researched organizations at the level of (β=.116, P>0.05). In addition, the results of the study did not show implication of the perception of KM goals and benefits of knowledge in utilizing KM in the researched organizations. As a result, this study accepts the null hypothesis (Ho17) which shows no statistically

significant implications at level of (α <.05) the perception of the goals and benefits of KM in utilizing knowledge management in the researched organizations at the level of (β=-.047, P>0.05). In addition, path analysis test results showed a direct implication to the perception of the role of leadership in utilizing KM in the researched organizations at the level of (β=.137, P<0.05). Consequently, this study rejects the null hypothesis (Ho18) and accepts the alternative hypothesis which shows statistically significant implications at the level of (α <.05) to the perception of the role of leadership in utilizing KM in the researched organizations. Finally, the results showed that no implication to the perception of the role of culture in utilizing KM in the researched organizations. Therefore, this study accepts the null hypothesis (Ho19) that argues that there is no significant impact at the level of (α <.05) of the perception of the role of culture on utilizing KM in the researched organizations at the level of (β=.033, P>0.05).

The following results had been reached through the analysis; the sub-independent variables (i.e. perception of dimensions of KM) have interpreted 70% of the sub-moderating variable (i.e. knowledge creation process), 58% of the sub-moderating variable (i.e. knowledge transfer and sharing), and 63% of the sub-moderating variable (i.e. organizational learning process). However, the variation in the employment of knowledge has caused all independent and moderating variables to be interpreted to reach 78%.

As a result, this study deduces that there is a direct impact for the perception of KM dimensions on utilizing it in public sector in Jordan. In addition, this study deduces that there is an indirect impact for organizational learning process on utilizing KM in public sector in Jordan.

11. The Study Results and Recommendations

The study reached a number of results, which are: Firstly, public sector organizations in Jordan continue to implement programs of KM, and utilized such programs in their work compared to the study of 2004. Secondly, a positive change continues to appear, compared to the study of 2004, but in an albeit slight; whether in the field of perception KM in terms of: assets, objectives and benefits, leadership and organizational culture. Additionally, positive change continues to appear in terms of practice of KM processes, compared to the study of 2004, such as: knowledge creation, knowledge transfer and sharing, Organizational learning, as well as utilizing of knowledge. However, Jordan is still a newcomer in this field; in spite of efforts of Jordanian authorities' officials; who considered organizational KM one of the criteria of King Abdullah II award for Excellence for Government Performance and Transparency. As a result, degree of positive change in such field is constrained by the following factors: Firstly, scarcity of economic and natural resources in Jordan. Secondly, Jordan surrounding tensioned environment that hinders opportunities to investment in human resources, which is considered the main factor of knowledge and KM.

Based on the outcome of the study, the following recommendations can be proposed: Firstly, establishment of a governmental body concerned with the affairs of KM. Secondly, development of course curriculum in Jordanian universities that enables students to absorb the concept of KM, benefits, objectives, and operations. Consequently, students contribution can be enhances KM initiatives can be implemented after joining the labor market. Thirdly, encouragement of staff of government organizations to be involved in Km initiatives through special training courses of KM, strengthening rewards and compensation systems to encourage knowledge creation, transfer and sharing, and utilization. Fourthly, encouragement of public and private organizations by the concerned authorities to develop facilities that encourage transfer and sharing of knowledge such as: chat and dialogue rooms. Also, developing services that encourage the transfer and sharing of knowledge, such as: trips and outdoor activities for members of the organization. In addition, organizations must conduct promotional things, such as trust, that promotes knowledge sharing. Also, organizations should take all procedures that encourage the process of converting tacit knowledge to explicit knowledge. For instance, organizations should take procedures such as linking incentives with the process of converting tacit knowledge to explicit knowledge. Finally, organizations must provide all facilitation that would enhance the conversion process.

Figure (3)

Analyzing the Model using method of path analysis for the 2004 study

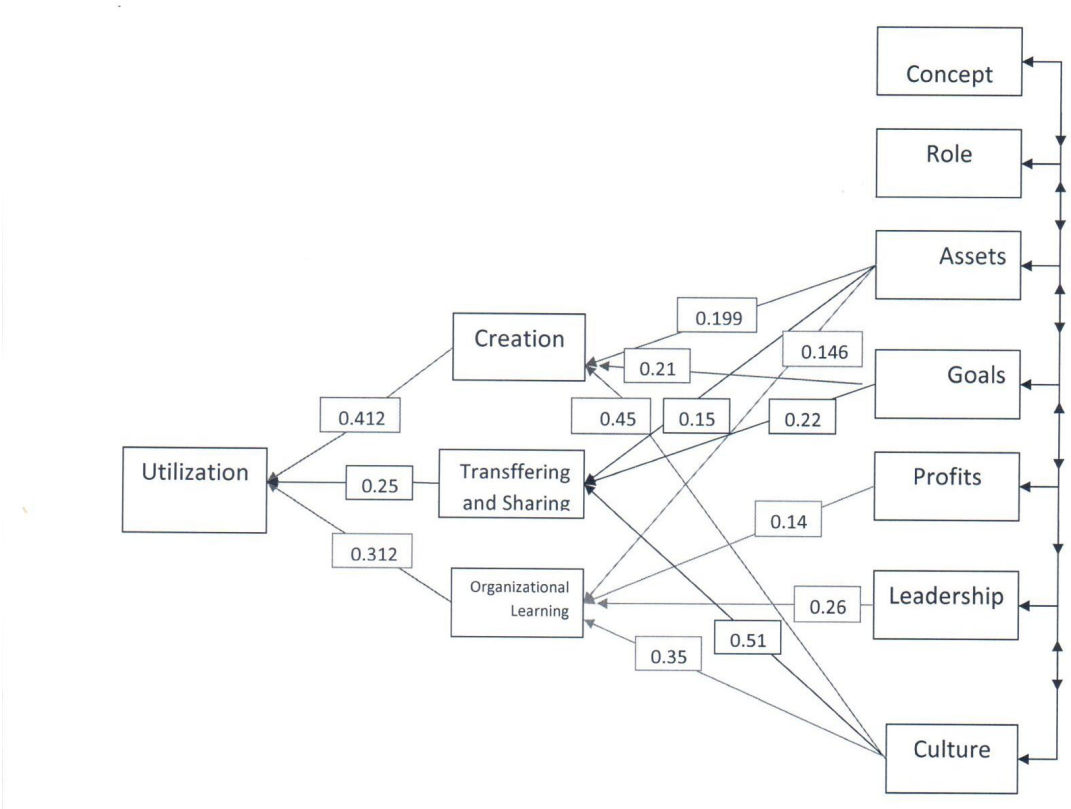
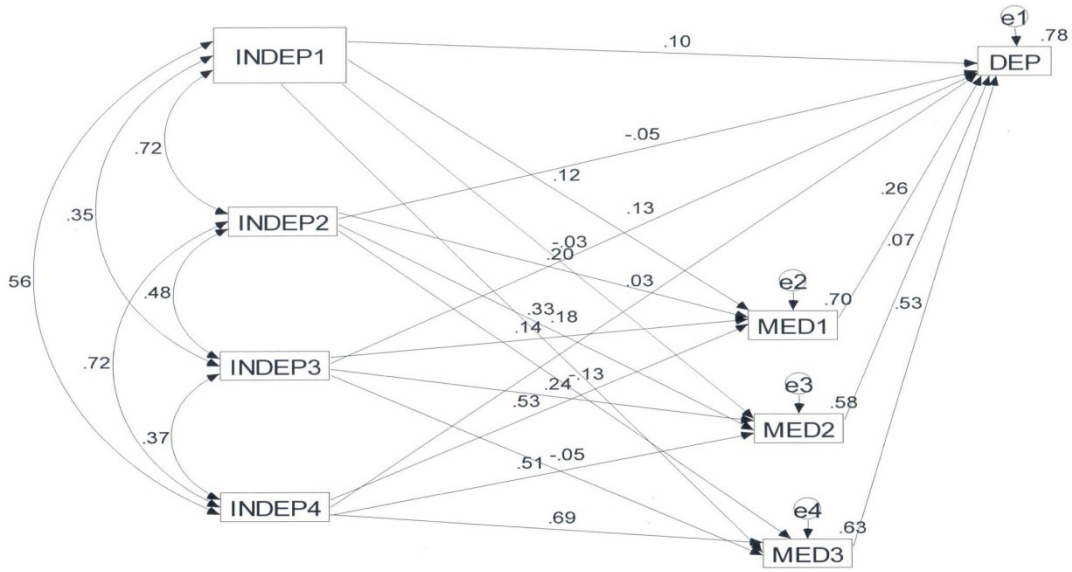


Figure (4)

Analysis of the model of the previous study in 2004 after the re-application in 2013



References:

1. Balogun, J. and Hailey , V. P. (2004) Exploring Strategic Change , Harlow , England , Prentice Hall
2. Barnes, Stuart (ed.) (2002) Knowledge Management Systems : Theory and Practice , London , Thomson Learning
3. Bhatt , G. D. (2001) Knowledge Management in Organizations : Examining the Interaction Between Technologies , Techniques , and People , Journal of Knowledge Management , 5 (1) pp. 68 – 75
4. Capshaw , S. and Frappaolo , C. (1999) Knowledge Management Software : Capturing the Essence of Know – How and Innovation , The Information Management Journal , July , pp. 16 – 25
5. Coakes, Elayne (ed.) (2003) knowledge Management : Current Issues and Challenges , U.S.A. , Idea Group Publishing
6. Cullen , J. B. and Parboteeah K. P. (2005) Multinational Management ,
7. Earl , M. J. (1998) Information Management , New York , Oxford University Press
8. Fearnley, P. and Horder, M. (1997) what is Knowledge Management? Knowledge Management in the Oil and Gas Industry , London Conference Proceedings Notes
9. Gartner Group (1998) 21st Century Vision , Information Strategy , 3 (9)
10. Griffiths , E. (1997) Knowledge Management for Global Operations and its Impact , Oil and Gas Industry , February 13 , pp. 61 – 70
11. Hiebeler , R. (1996) Benchmarking Knowledge Management , Strategy and Leadership , 24 (2) p. 22
12. Hijazi, Haitham A. (2004) Measuring the Effect of the Perception of Knowledge Management on its Utilization in the Jordanian Organizations: A Comparative Analytical Study Covers Public and Private Sectors towards Building a Model for Utilizing Knowledge Management, Ph. D. dissertation, Amman Arab University for Graduate Studies, Amman, Jordan
13. Kothuri , Smita (2002) Knowledge in Organizations : Definition , Creation and Harvesting , www.gse.harvard.edu , Retrieved March 18 , 2004
14. Little , Stephen , Quintas , Paul and Ray , Tim (ed.) (2002) Managing Knowledge : An Essential Reader , London , Sage Publications
15. Marquardt , Michael J. (2002) Building the Learning Organization : Mastering the 5 Elements for Corporate Learning , U.S.A. , Davis – Black publishing Company
16. Marshall , C. , Prusak , L. and Shpilberg , D. (1996) Financial Risk and the Need for Superior Knowledge Management , California Management Review , 38 (3) pp. 77 – 101
17. Myers , Paul S. (2004) Making the Business Case for Knowledge Management , www.Yahoo.com , Retrieved July 7 , 2004
18. Nonaka , Ikujiro and Takeuchi , Hirotaka (1995) The Knowledge Creating Company : How Japanese Companies Create the Dynamics of Innovation , New York , Oxford university Press
19. Nonaka, Ikujiro and Takeuchi, Hirotaka (2004) Hitotsubashi on Knowledge Management, Singapore, John Wiley & Sons (Asia) Pte Ltd.
20. Nonaka , Ikujiro (1998) The Knowledge – Creating Company , Harvard Business Review on Knowledge Management , U.S.A. , Harvard Business School Press
21. Pan , S. L. and Scarbrough , H. (1998) A Socio – technical View of Knowledge – Sharing at Buckman Laboratories , Journal of Knowledge management , 2 (1) p. 55
22. Puccinelli , B. (1998) Strategies for Sharing Knowledge , Inform , 12 (9) pp. 40 - 41
23. Stettner , Morey (2000) Skills for New Managers , U.S.A. , McGraw – Hill
24. Szualnski , G. (1996) Exploring Internal Stickiness : Impediments to the Transfer of Best Practice Within the Firm , Strategic Management Journal , 17 , pp. 27 – 43
25. Warner , M. and Witzel , M. (2004) Managing in Virtual Organizations , Australia , Thomson
26. Wickham , P. A. (2001) Strategic Entrepreneurship , Harlow , England , Prentice Hall
27. Wiig , Karl M. (1993) Knowledge Management Foundations : Thinking About Thinking / How People and Organizations Create , Represent and Use Knowledge , U.S.A. , Schema Press
28. Wiig, Karl M. (1994) Knowledge Management : the Central Management Focus for Intelligent Acting Organization , U.S.A. , Schema Press
29. Zerega , B. (1998) Art of Knowledge Management , Infoworld , July 27 , p. 61
30. Zmud, R. W. (ed.) (2000) Framing the Domain of IT Management: Projecting the Future through the Past, Ohio, Pinnflex educational resources, Inc.