

Needs Assessment of Petra University for Competent Departments in Knowledge Management

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Abstract

This study aimed to identify the needs assessment of Petra University to have a knowledge management departments , and the differences for the estimations of the sample attributed to the variables of the study (gender, experience and job title). Sample of study consist of Academic Administrators of Petra University totaling (40) persons. The results showed that the degree of Petra University practice in knowledge management was medium. It also showed that the importance degree of Petra University practice of knowledge management was high. There was a significant difference between the practice and importance, and there were no significant differences related to study variables gender experience and job title for administrators.

The study recommends increasing awareness and interest in the practice for knowledge management at the University of Petra and stating its role in the progress, development and prosperity of Petra University and other universities in Jordan.

Keywords: needs assessment, knowledge management

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تقدير حاجة جامعة البترا إلى دوائر مختصة في إدارة المعرفة

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ملخص

هدفت هذه الدراسة التعرف إلى تقدير حاجة جامعة البترا إلى دوائر مختصة في إدارة المعرفة، والفروق التي تعزى لمتغيرات الدراسة (الجنس، الخبرة والمسمى الوظيفي). تكوّن مجتمع الدراسة من الإداريين الأكاديميين العاملين في جامعة البترا، وتم اختيار العينة بالطريقة القصدية وبلغ عددها (40) إدارياً، تكونت أداة الدراسة من (59) فقرة موزعة على (6) مجالات، وأظهرت نتائج الدراسة أن درجة ممارسة جامعة البترا لإدارة المعرفة كانت متوسطة، كما أظهرت أن درجة أهمية ممارسة جامعة البترا لإدارة المعرفة كانت مرتفعة. وأظهرت النتائج أيضاً وجود فروق ذات دلالة إحصائية عند مستوى الدلالة ($\alpha = 0.05$) ما بين الواقع والأهمية. بالإضافة إلى عدم وجود فروق ذات دلالة إحصائية عند مستوى الدلالة ($\alpha = 0.05$) تُعزى لمتغير الجنس، والخبرة، والمسمى الوظيفي للإداريين.

وقد أوصت الدراسة بزيادة الوعي والاهتمام بممارسة الإجراءات المتعلقة بإدارة المعرفة في جامعة البترا وبيان دورها في تقدّم وتطوّر وازدهار جامعة البترا بشكل خاص والجامعات الأردنية بشكل عام.

الكلمات الدالة: تقدير الحاجات، إدارة المعرفة

Introduction:

In the light of the an abnormal transformations, the Jordanian Universities witness unprecedented developments and shifts in terms of information flow. What is going on recently, on the ground, could be classified as real informational & Internet revolution as well. Whilst on the subject, the foregoing lead us to conduct deep thinking as to how we may benefit from such revolution to arrange for the availability of qualified individuals to attracting, activating and employing such revolution to serve our communities, in general, to proceed in parallel with the recent developments through employing the highest efficiencies which represent the basis of any university's success.

Should the university achieve successful attempts in that regard, then this shall lead to more development and walk in line with the modernist variables witnessed at the renaissance eras, especially in terms of technology and IT. During Technological renaissance era know-how becomes researchers' problem as to method of conducting accurate selections of information out of huge number of documents and references, especially those which are available on the internet.

In the light of these changes and circumstances, researchers and scholars wonder if knowledge needs to be managed? The answer is that knowledge has to be managed, because the enormous information and communication revolution has made universities feel that knowledge is present and intangible, which is the most important element, given that universities have the knowledge of course, but these universities use it inappropriately, some the Those universities cannot detect, reach and even apply them, because they hardly know the appropriate means to apply it (Al Thaher 2008).

The management work to provide the universities and organizations of concern, with methods of generating knowledge, apply and distribute thereof to take part in administrative decision making, and further increase its competing ability, and encouraging innovation in order to achieve universities' or organizations' strategic goals; improving performance and increase values thereof. Information neither classified as knowledge, nor all information is valuable. Thus, the management duty is to define the beneficial knowledge and using thereof in the organization's operations and activities. (Al Faris, 2010)

Knowledge is defined by a knowing something and be aware of it ; i.e. to be fully aware of. Knowledge is more comprehensive and broader than science, as it contains wide and huge balance of knowledge, information and science which human can collect through human long history, through his senses, thinking and mind. Knowledge is considered an outcome of previous efforts and current scientific interpretations, (Al Rabei', 2008).

Moreover, knowledge is classified as leader to control the organizations in its business, it is the basic and effective factor as to organizations superiority, under an account that knowledge is intangible, but its results are tangible and clear to everybody, (Olayan, 2012).

Currently, our life depends totally on knowledge in all its trends, being the most precious sources owned by human, and represented by human know-how, values, skills and believes, and it is considered the most effective and influential element of our time. Further it is considered one of the bases which intellectual and technological development are based on which is in harmony with all quick and continuous changes, especially those to come, in terms of knowledge management era. The foregoing works to increase knowledge investment and innovation level in many scopes to achieve institutions aims; Universities in particular, to increase the knowledge and thinking development which shall support the specialized knowledge to bring the community into prosperity, (Al Zboun, Al shaikh, 2015).

The need for knowledge management is set out through thinking quality practiced by administrators in Universities during their administrative missions, it has been linked also, by positive relationship with the mental curve practiced by administrators to solve problems. The knowledge management and needing thereof; is one of the most important matters for universities and related personnel, attributed to its impact on their knowledge and intellectual performance. Whilst, knowledge need concept refers to the individual ability in participating and enjoying the complicated knowledge activities, re-act with knowledge challenges to reach at knowledge and generate thereof. Schommer referred to her idea by stating more applications of knowledge management, generate more increase in our ability to offer the best. Once knowledge is poor, the problem could be larger from real knowledge shortage, but it is attributed to management

nature (Schommer, 2008). The idea of this study selected Petra University as it contributes among other universities, to the building and development of society, and from which many of whom became decision makers had graduated.

And upon that, there might be a need for knowing the reality and expected concerning knowledge management at Petra University “our field of study”. For the difference between them resembles the real need assessment.

Study Problem & Related Questions

Currently, the administrative work is based on advanced knowledge; a matter that requires a different type compared with traditional one, and represented by knowledge management. The foregoing is considered necessary in many institutions of all types of business and roles in addition to their levels. Knowledge management is an activity directed to locate knowledge via education method through change, within well-planned means which shall raise the competitive feature to spread knowledge to generate benefits there from. While universities suffer knowledge accumulation minority, attributed to weak planning and know-how, in addition to lack of full harmony between personnel therein. The universities are searching for best procedures of positive interaction with such problem. Knowledge management forms one of the main methods to deal with such phenomena, and further offer help to personnel to find out solutions of personnel participation. Petra University is not excluded from such problem, which is common in many Jordanian universities. This prevailing reality constitutes motive to conduct this study to identify and assess the need of Petra University to specialized departments concerned of knowledge management, through replying the following question.

What is the assessment degree of Petra University's need as to specialized department concern of knowledge management?

To reply such question we have to offer replies to the following questions as well:

- 1 What is the practicing procedures degree, of concern, as to knowledge management in Petra University?

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- 2 What is the degree of practicing such procedures of knowledge management in Petra University?
 - 3 What is the need level of practicing knowledge management procedures in P. U.?
 - 4 Are there differences of statistical significance at significant level ($0.05 \geq \alpha$) in assessing the need for specialized departments in knowledge management which are attributed to gender, experience and job title?

The Importance of Study

The study importance is launched from knowledge management concept importance in Jordanian educational institutions, organizations and universities, especially Petra University. This study drives at setting out an expanding knowledge' community circle, aware and beneficial from the offered knowledge thereto and also able to employ such knowledge in various means, any time and place whereas benefit could be generated there from via the most innovative mean that is in conformity with modern managements and trends.

Such importance is sourced from investigating the knowledge management reality in Petra University as a prestigious academic institution that always seeks to maintain its level and reputation among Jordanian and Arab universities. The importance of this study is also derived from the importance of building the proposed theoretical frame of the Petra University need to apply knowledge management. This study seeks, also, to add the Arab Libraries by study that monitors Jordanian Universities need to have specialized departments in knowledge management, after recognizing that such researches are minor in that field. The researcher hopes that her study should be of a source of interest for other researchers to launch in other areas related to the topic of knowledge management, which is a modern one.

Study Definitions

The following definitions are used here in:

Need Assessment: It is a written procedure whereas priorities are arranged in order manner, decisions are made in respect of programs, as well as sources are defined and allocated. Needs assessment is linear track presented based on defining each series of stages (Witkin, Altschud.1995).

Procedural Need Assessment : It is the difference or gap between realities and expectations; between what is already available and what is preferred.

Knowledge Management: It is processes, activities and behaviors that help University, organization or educational institution to generate knowledge and obtaining thereof, drafted by beneficiaries in the University. It could be organized, published and shifting the information and expertise owned by the organization, activate thereof in its various administrative activities to be reflected on business operations. It could be employed in administrative activities as work procedure, strategic planning and administrative decision-making (Al Malkawi, 2007).

The knowledge management is defined in procedural manner to be knowledge employment through range of activities and operations that contribute in generating the knowledge, using, publishing and sharing thereof between administrative personnel to develop and improve the administrative work in the University to be reflected on graduates through pre-arrangement issue of the management.

Study Goals :

This study aims at identifying Petra University need assessment as to specialized departments in knowledge management, and defining differences of statistical significance at significant level ($0.05 \geq \alpha$) in assessing the need for specialized departments in knowledge management that ascribed to gender, expertise and job title.

Study Questions:

Hopefully, this goal will be met by answering the following questions:

- 1 What is the practicing procedures degree, of concern, as to knowledge management in Petra University?
- 2 What is the degree of practicing such procedures of knowledge management in Petra University?
- 3 What is the need level of practicing knowledge management procedures in P. U.?
- 4 Are there differences of statistical significance at significant level ($0.05 \geq \alpha$) in assessing the need for specialized departments in knowledge management which are attributed to gender, experience and job title?

The limits of the study and its determinants

The study outcomes are defined by the following:

- 1 Human limits: This study focuses in particular on administrative academics in Petra University
- 2 Temporal limits: this study has been applied in academic year 2014/2015
- 3 Spatial limits: this study has been applied on Petra University.
- 4 Objective limits: The outcomes of this study are defined accurately, objectively and truth feature of sample individuals within their response to the study tool allocated to collect its data, noting that the researcher also verified stability and truth degrees thereof in due manner.

Theoretical Literature

The studies and literatures related to the modern administrative thinking stated that educational universities, institutions and organizations of all specialties need the knowledge and managing thereof, and to be applied through decision making, analyzing and seconding thereof. Moreover, data

and information databases shall be made available to enhance the group's good practice opportunity under the social environment of such universities, institutions and organizations that depend on innovation in its performance. On the light of the Jordanian Universities need of knowledge management, we shall present concepts, through which we can reach to knowledge management and reality as well. Such is defined by organized efforts aspire to intellectual capital, investing and developing thereof in educational universities and organizations. The foregoing could be attained from computing knowledge and generating knowledge from its internal and external sources, then storing, organizing and distributing thereof. Also it could be shared by individuals and use it to create good knowledge and then apply it in administrative activities and decision making to solve problems, (Odeh, 2010).

Many theoreticians, such as Valente and Rigallo (2004) present knowledge management as an issue that help in improving and organizing individuals knowledge to take the optimum decisions, besides it is considered as a plan set out by the supreme management for work organizing and employees orientation to identify the opportunities and challenges that face the organization through knowledge abilities sharing, and further reach at the best to store, organize and apply to strength and weak points in the educational institutions.

Knowledge management aims to provide the organization with edequate knowledge support to build an infrastructure that works to achieve the organization aims and control its leadership and efficiency. Also it can provide the organization with necessary knowledge for improvement and development. The knowledge management also drives to transfer the identified processes that contribute in improving and developing products and offering thereof with developed services, (Al Raqab, 2011).

Previous Arab Studies:

Al Talbani et al (2014) titled requirements to apply knowledge management in Palestinian Universities at Gaza Strip. The study community was consisted of Administrators and academics who work in the Palestinian Universities at Gaza Strip. This study used tool to collect data from sample selected randomly from Administrators and academics employed at Palestinian Universities in Gaza Strip. The selected sample consisted of 241 individuals. The study outcomes presented positive relationship between

knowledge management requirements (organizational culture, organizational structure, leadership & ID) from one side and applying knowledge management in Palestinian Universities from other side. The generated outputs displayed that IT category occupied the first degree followed by in serial order leadership, organizational structure then organizational culture. The study included recommendations to hold series of workshops and conferences to spread knowledge management culture outreach, design of a central database among Palestinian universities to store and share knowledge.

Abu Al Nadi (2014) drove at assessing the Jordanian Universities need to specialized department in knowledge management. In order to achieve such aim, developed questionnaire has been used to collect data from sample individuals who were totaled 112 persons. The study generated pool of outcomes, the most important of which were: practicing knowledge management processes procedures in Jordanian Universities which recorded medium level. The University of Jordan needs assessment referred to the availability of specialized departments in knowledge management at great degree.

Masaadh and Zaydeien (2012) titled Applying knowledge management requirements in University teaching; Teaching body point of view in Jordanian Universities: Study of Al Zarqa University case, whereas the study community was represented by all teaching body members in the university, totaled 251 members. The study tool was prepared and tested to assure its stability and credibility. After distributing the questionnaire among the study sample individuals, the most important outcomes which were generated in terms of knowledge management's application degree in University teaching at Al Zarqa University, recorded higher level from the teaching body point of view. Also there were no differences of statistical significance at 0.05 level in applying knowledge management requirements in the University teaching which are ascribed to gender of teaching body members, while there was differences of statistical significance at 0.05 level in terms of applying knowledge management requirements in University teaching; teaching body members point of view in respective university which is ascribed to experience term in university teaching. The differences were in the favor of those who hold 10-15 years experience.

On the light of generated outcomes the study set out recommendations to direct the universities towards using knowledge management in the University teaching in order to bring such teaching out of its traditional and inactive circle. Moreover, knowledge management application's requirements shall be made available at university teaching and other fields as well.

Othman (2010) aimed to identify governmental schools headmasters' trends towards applying the knowledge management in Northern districts of Palestine. The study sample was formed from such secondary schools headmasters and headmistresses in same regions; totaled 640 persons. After collecting the data and generating outcomes, headmasters' trends towards applying knowledge management recorded high and positive level. So the study recommended applying thereof by the Ministry of Education in all its secondary schools in Palestine.

Abu Al Nadi (2009) titled suggested rules for knowledge management in Official Jordanian Universities based on selected forms. This study aimed to identify knowledge management reality in official Jordanian universities. The study sample was formed from administrators and teaching body members therein, totaled 593 individuals. The generated results displayed the absence of any practice as to knowledge management in such universities. Also there were differences of statistical significance ascribed to both experience and university variables. There also were differences of statistical significance of job title variable. The study recommendations directed to adopt suggested rules for knowledge management in Jordanian official universities.

Abu Mreghi (2009) titled assessing the educational administrative needs of private schools headmasters in HKJ. This study aimed to assess the administrative needs of private schools headmasters in HKJ based on four fields; i.e. planning, relationship with domestic community, educational oversight and reformation. The study community was consisting of 12 headmasters in private schools. The reached outputs has displayed that administrative efficiencies reality at private schools recorded medium level in all fields excluding the relationship with domestic community which recorded high level.

Maher & Hussein (2014) drove at identifying the knowledge management processes impact on post education in Iraq, from a pilot's perspective. Both researchers prepared the study tool to collect data and

information, in addition to auxiliary tools; personal interviews & site visits which have been analyzed, conclusions of which identified correlative relationship and impact, both of statistical significance between knowledge management processes and education quality assurance in common. On the light of such conclusions the study recommended the adoption of effective program to detect the students and community problems as well and the necessity to take into account the students expectations and views once offering services or setting out standards to offer educational services.

Previous Foreign Studies:

Zack et al., (2009) aimed to identify knowledge management impact on the functional performance of commercial companies through studying the effect of employing the knowledge management on accrued quality, and further locating the relationship between employing the knowledge management and organizational performance. The study sample consisted of 1500 Executives who received training courses at Leading North business School. The most important outcomes generated from there is represented by the availability of direct relationship of statistical significance between knowledge management and organizational performance. The same has been also noticed between financial and organizational performances. Besides there was relationship of statistical performance between financial performance and knowledge management practices. The study noticed also effective factors in addition to knowledge management which impact the financial performance; i.e. company relations, product development and processes distinction. The study recommendations focused on the necessity of improving the scales of knowledge management to be aware of its role in achieving the organizational performance, and activating knowledge management role to improve occupational performance outputs.

Study prepared by Rawat (2011) drove at realizing the knowledge management support on Internet; to enable students of Indian Universities, employing and increasing thereof.

The study sample was consisted of 7000 students. After collecting the study tool and analyzing the included data therein, the results displayed that the administrators and academics in post education institutions care to set

out knowledge bases, technology employment bases in many of educational subjects. In the light of the study outcomes, recommendations have been reached at including, but not limited to, shed light on knowledge management in Universities; both administrative and academic that enhance the relationship between knowledge management and electronic education in order to activate education in easy manner.

Study prepared by Dickhauser & Reinhard (2009) aimed to know the impact of knowledge need in forming school performance expectations. The study sample was formed of 554 students in USA Universities. After applying the tool on the sample it was noticed that knowledge need level among students worked to increase the school actual performance level. Moreover, the generated outcomes revealed that knowledge need recorded medium level once performing some expected missions, while it increased once such expected missions and procedures thereof are being complicated, especially when such missions are serious and generate good benefits.

What distinguish this study from other studies, within the researcher knowledge limits, that it tackled Petra University need assessment as to specialized departments in knowledge management. This study also came as scientific addition that tackled Jordanian Universities & educational institutions need of knowledge management. The foregoing forms new knowledge addition in the Jordanian domestic research field and also at the level of Arab research which is applied, in common, in educational organizations and institutions, as well as post education institutions in particular.

Methodology & Procedures

Study Methodology

This study employed the survey descriptive methodology to achieve its goal, represented by "Petra University need for specialized departments in Knowledge management"

Study Community

The study community is consisted of Administrators and academics in Petra University at the Hashemite Kingdom of Jordan; academic year 2014/2015.

Study Sample

The sample has been selected intentionally, consisting of the complete study community. 48 Questionnaire have been distributed among the respective individuals in their offices. We excluded 8 questionnaires, being unfit for statistical analysis, non-completed responses, or sample individuals who did not fill the form. The final sample was totaled at 40 administrators and academics rated at 83.3% of the main sample.

Table No. (1) displays study sample distribution based on gender, expertise and job .

Table (1) Sample Individuals Distribution based on Gender, Expertise & Job

Variable	Category	Repetition	Percentage %
Gender	Male	28	70%
	Female	12	30%
	Total	40	100%
Expertise	Less than five years	**	**
	From 5-10 years	9	22.5%
	More than 10 years	31	77.5%
	Total	40	100%
Job Title	Dean	8	20%
	Deputy dean	3	7.5%
	Assist. Dean	5	12.5%
	Section head	18	45%
	Unit director	6	15%
	Total	40	100%

Study Tool :

For the purpose of achieving the study goals, we have designed study tool based on theoretical literature and ex-studies (Abu Al Nadi, 2009). The study scale is consisted from two parts:

First part: Including demographic information; i.e. gender, experience years number, job within senior administrative and academic business in the University.

Second part: including study questions consisting of 59 Paragraphs, all relates to Petra University need degree in terms of specialized departments in knowledge management. This part tackles the following dimensions:

First: Dimension handles knowledge diagnosis degree and importance thereof. It includes 1-9 Paragraphs

Second: Dimension relates to degree of practicing knowledge plan and importance thereof. It includes paragraphs from 10-16

Third: Dimension relating to degree of acquiring knowledge and its importance, including paragraphs from 17-23

Fourthly: Dimension relating to degree of practicing knowledge storage and its importance, including paragraphs from 24-31

Fifthly: Dimension relating to degree of generating knowledge and importance thereof, Paragraphs from 32-44.

Sixth: Dimension relating to degree of knowledge sharing and distribution and importance thereof, Para 45-59.

The importance degree has been scaled through locating differences between reality and expected.

Ex-Study Tool Credibility:

The purport credibility has been measured, referred to in (Abu Al Nadi, 2009) study, which has been verified by presenting the study tool before ten arbitrators. The study tool, consisting of 63, has been summarized in final mode to be 59 paragraphs. Such summary was made by striking off some paragraphs, as recommended, and amending some of it until the scale is adapted to reach to the current study.

Study Tool Credibility compared to the Purposes of Current Study:

Study tool credibility has been verified by using purport credibility. The tool has presented before ten of teaching members in Petra University, University of Jordan and some other competent bodies, (refer to appendix 2) in order to assure that the tool measure the target which is intended to be measured, and further determining thereof in terms of harmony degree of the paragraphs with the concerned dimension, phrases belonging to main study dimensions and suitability thereof, clarity degree & credibility of its language. The arbitrators showed their interaction with the study tool paragraphs which assures the virtual credibility of the tool.

Study Tool Stability

In order to calculate study tool stability we employed internal consistency coefficient; CronbachAlpha, for the study dimensions in terms or practice and importance. Table (2) shows stability coefficients values as follows:

Table (2) Stability consistency coefficient of the main dimensions by using CronbachAlpha coefficient in terms or practice and importance

Study Variables	Stability Coefficient – Practice (Reality)	Stability Coefficient – Importance
Knowledge Diagnosis	0.87	0.73
Knowledge Mapping	0.81	0.87
Knowledge Acquisition	0.81	0.60
Knowledge Storage	0.82	0.79
Knowledge Generating	0.93	0.95
Knowledge Sharing & Distributing	0.92	0.93

Table (2) clarifies that the stability coefficients values by using CronbachAlpha for auxiliary dimensions are fair and suitable for the study objectives.

Adopted Standard to Determine the Assessment Degree :

Based on Lekert fifth scale to assess the practice and importance, the SMAs reached at this study were treated pursuant to following equation:

$$\frac{5 - 1}{3} = \frac{4}{3} = 1.33 \text{ this value equals category length}$$

Accordingly, the low level shall read from $1.00 + 1.33 = 2.33$

Medium level from $2.34 + 1.33 = 3.67$

High level from 3.68-5.00

Study Variables

This study includes many variables

- 1 Independent variable: The practice reality of administrative academics of knowledge management.
- 2 Intermediate variables (Secondary Independent): gender, experience years number, job
- 3 Dependent variable: the sample individuals' response as to the study tool.

Employed Statistical Treatments

After developing the study tool and extracting credibility and stability, we have distributed thereof among the study sample. Then we recovered the tool, sort it out, transferred responses into raw degree and then enter thereof on the computer to extract outcomes and performing statistical methods by using SPSS program. We have employed herein the following statistical methods:

Extracting the repetitions & percentages of sample individuals' description, using CronbachAlpha test to assure the tool stability, extracting

the SMAs to define the paragraphs importance & standard deviations in the questionnaire in order to identify the replies dispersion away from its SMA. This study used T-Test to identify the difference between practices and importance. We also used Three Anova Way to identify the differences in the need which are ascribed to demographic variables.

Study Outcomes

This study drove at identifying Petra Need assessment to specialized departments in knowledge management. In our way to simplify outcomes presentation issue, we divided thereof according to study questions. Finally the study reached at the following outcomes:

First Question: What is the practicing procedures degree in terms of knowledge management in Petra University?

To reply such question, we have computed SMAs and standard deviations of each dimension in the questionnaire and each paragraph to identify practice degree of procedures relating to knowledge management. We present hereinafter such outcomes:

Table (3) SMAs and standard deviations of sample Individuals response in terms of "procedures practice's degree of knowledge management, in Petra University" in descending order

Serial	Procedures reality of knowledge management in Petra University	SMA	Standard deviation	Order	Reality level
5	Knowledge generating	3.37	0.58	1	Medium
1	Knowledge diagnosis	3.35	0.55	2	Medium
4	Knowledge storage	3.33	0.48	3	Medium
6	Knowledge sharing and distribution	3.27	0.59	4	Medium
3	Knowledge acquisition	3.20	0.56	5	Medium
2	Knowledge mapping	3.15	0.57	6	Medium
	Scale total degree	3.28	0.44		Medium

Table (3) above, displays the SMAs of dimensions; procedures practice reality of knowledge management in Petra University, which ranged from 3.37 – 3.15. Reality acquired in common, total SMA of 3.28, at medium level. Knowledge generation fills the first degree, at SMA of 3.37, with standard deviation of 0.58, at medium level. Knowledge diagnosis fills the 2nd degree at SMA of 3.35, and standard deviation of 0.55, at medium level. Knowledge storing fills the 3rd. degree, at SMA of 3.33, and standard deviation of 0.48, medium level.

Knowledge mapping occupied the last degree, at SMA of 3.15, and standard deviation of 0.57, medium level. Knowledge acquisition occupied (Before the last degree) at SMA of 3.20, and standard deviation of 0.56, at medium level.

The foregoing offers interpretation for the fact that practice reality of knowledge management practice in Petra University came at medium level.

Second Question: what is the procedures practice importance degree of knowledge management in Petra University?

To reply such question, we have calculated the SMAs and standard deviations for each dimension in the questionnaire and each paragraph to identify the procedures importance of concern as to knowledge management. We display hereinafter the generated outcomes:

Table (4) SMAs and standard deviations of study sample

Serial	Reality of procedures of knowledge management in Petra University	SMA	Standard deviation	Order	Importance level
5	Knowledge generation	4.17	0.68	1	High
6	Sharing & distributing knowledge	4.15	0.60	2	High
3	Knowledge acquisition	4.14	0.49	3	High
4	Knowledge storage	4.01	0.48	4	High
2	Knowledge mapping	3.95	0.64	5	High
1	Knowledge diagnosis	3.93	0.43	6	High
	Scale total degree	4.06	0.46		High

Individuals responses on importance degree of knowledge management procedures in Petra University, in descending order

Table No. 4 clarifies that SMAs of dimension (importance of practicing procedures of knowledge management in Petra University), ranged between 4.17, 3.93. Such dimension acquired in common, total SMA of 4.06, at high level. Knowledge generation occupied the 1st. degree at SMA of 4.17, and standard deviation of 0.68, at high level. 2nd. degree was occupied by knowledge sharing and distribution, of SMA 4.15, standard deviation of 0.60, at high level. 3rd. degree has been filled by Knowledge acquisition, of SMA 4.14, standard deviation of 0.49, at high level. The last degree was occupied by Knowledge diagnosis, of SMA 3.93, standard deviation of 0.43, at high level. Knowledge mapping came before the last degree, of SMA 3.95, standard deviation of 0.64, at high level.

The foregoing offers explanation that procedures relating to knowledge management in Petra University registered high level.

Third Question: What is the Need degree of each knowledge management procedures at Petra University?

In order to reply such question, the differences among SMAs have been identified for each Paragraph in Practice degree paragraphs and similar one in importance degree. We have conducted T test and identified the level of differences significant among SMAs. Table No. (5) displays the following outcomes: The Availability of differences of statistical significance between the SMAs of practice and importance paragraphs.

Table (5) SMAs, standard deviations, T differences significance between practice (reality) and Importance (Expected) of the study tool

	Para	SMA	Standard deviation	Difference	T value	Statistical significance
Practice (reality)	1	3.62	0.81	- 350 -	-2.176-	033
Importance (expected)	1	3.98	0.62			
Practice (reality)	2	3.50	0.91	-650-	-3.591-	001
Importance	2	4.15	0.70			

	Para	SMA	Standard deviation	Difference	T value	Statistical significance
(expected)						
Practice (reality)	3	3.08	0.76	-450-	2.546-	013
Importance (expected)	3	3.52	0.82			
Practice (reality)	4	3.45	0.75	-625-	-3.969-	000
Importance (expected)	4	4.08	0.66			
Practice (reality)	5	3.48	0.78	-425-	-2.486-	015
Importance (expected)	5	3.90	0.74			
Practice (reality)	6	3.12	0.76	-750-	4.531-	000
Importance (expected)	6	3.88	0.72			
Practice (reality)	7	3.25	0.71	-550	-3.075	003
Importance (expected)	7	3.80	0.88			
Practice (reality)	8	3.08	0.80	-750	-3.687	000
Importance (expected)	8	3.82	1.01			
Practice (reality)	9	3.60	0.78	-600	3.747-	000
Importance (expected)	9	4.20	0.65			
Practice (reality)	10	3.48	0.64	-700	-4.624	000
Importance (expected)	10	4.18	0.72			
Practice (reality)	11	3.38	0.93	-700	3.757-	000
Importance (expected)	11	4.08	0.73			
Practice	12	3.35	1.03	-925	-5.112	000

Needs Assessment of Petra University for Competent Departments ...

Maram Abu Al nadi

	Para	SMA	Standard deviation	Difference	T value	Statistical significance
(reality)						
Importance (expected)	12	4.28	0.51			
Practice (reality)	13	3.00	0.91	-900	-4.457	000
Importance (expected)	13	3.90	0.90			
Practice (reality)	14	3.00	0.85	-925	4.471-	000
Importance (expected)	14	3.92	1.00			
Practice (reality)	15	2.88	0.65	-725	-4.051	000
Importance (expected)	15	3.60	0.93			
Practice (reality)	16	2.95	0.82	-775	-3.715	000
Importance (expected)	3.72	1.04				
Practice (reality)	17	3.18	0.84	-975	-5.749	000
Importance (expected)	17	4.15	0.66			
Practice (reality)	18	3.00	0.99	-1.225	5.912	000
Importance (expected)	18	4.22	0.86			
Practice (reality)	19	3.22	0.86	-1.125	-6.279	000
Importance (expected)	19	4.35	0.74			
Practice (reality)	20	3.50	0.91	-800	-4.284	000
Importance (expected)	20	4.30	0.76			
Practice	21	3.40	0.71	-450	-2.245	0.28

	Para	SMA	Standard deviation	Difference	T value	Statistical significance
(reality)						
Importance (expected)	21	3.85	1.05			
Practice (reality)	22	3.02	0.70	-1.000	-5.958	000
Importance (expected)	22	4.02	0.80			
Practice (reality)	23	3.05	0.68	-1.025	-6.510	000
Importance (expected)	23	4.08	0.73			
Practice (reality)	24	3.60	0.87	-875	-5.235	000
Importance (expected)	24	4.48	0.60			
Practice (reality)	25	3.10	0.59	-550	-3.051	003
Importance (expected)	25	3.65	0.98			
Practice (reality)	26	3.28	0.64	-725	-4.529	000
Importance (expected)	26	4.00	0.78			
Practice (reality)	27	3.58	0.75	-625	-4.352	000
Importance (expected)	27	4.20	0.52			
Practice (reality)	28	3.28	0.75	-550	-3.362	001
Importance (expected)	28	3.82	0.71			
Practice (reality)	29	2.95	0.71	-650	-3.577	001
Importance (expected)	29	3.60	0.90			
Practice (reality)	30	3.60	0.76	-450	-2.902	005
Importance	30	4.05	0.71			

Needs Assessment of Petra University for Competent Departments ...

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	Para	SMA	Standard deviation	Difference	T value	Statistical significance
(expected)						
Practice (reality)	31	3.22	0.77	-1.050	-6.645	000
Importance (expected)	31	4.28	0.64			
Practice (reality)	32	3.55	0.75	-925	-5.394	000
Importance (expected)	32	4.48	0.78			
Practice (reality)	33	3.22	0.62	-900	-5.667	000
Importance (expected)	33	4.12	0.79			
Practice (reality)	34	3.42	0.71	-625	-3.369	001
Importance (expected)	34	4.05	0.93			
Practice (reality)	35	3.50	0.75	-625	-3.288	002
Importance (expected)	35	4.12	9.94			
Practice (reality)	36	3.42	0.78	-675	-3.460	001
Importance (expected)	36	4.10	0.96			
Practice (reality)	37	3.52	0.88	-750	-3.648	000
Importance (expected)	37	4.28	0.96			
Practice (reality)	38	3.32	0.80	-775	-4.401	000
Importance (expected)	38	4.10	078			
Practice (reality)	39	3.58	0.93	-850	-4.769	000
Importance	39	4.42	0.64			

	Para	SMA	Standard deviation	Difference	T value	Statistical significance
(expected)						
Practice (reality)	40	3.50	0.78	-1,000	-5.477	000
Importance (expected)	40	4.50	0.85			
Practice (reality)	41	3.20	0.69	-975	-6.076	000
Importance (expected)	41	4.18	0.75			
Practice (reality)	42	3.22	0.86	-650	-3.226	002
Importance (expected)	42	3.88	0.94			
Practice (reality)	43	3.00	0.82	-950	-4.769	000
Importance (expected)	43	3.95	0.96			
Practice (reality)	44	3.35	0.80	-625	-3.718	000
Importance (expected)	44	3.98	0.70			
Practice (reality)	45	3.82	0.81	-500	-2.834	006
Importance (expected)	45	4.32	0.76			
Practice (reality)	46	3.28	0.91	-975	-5.080	000
Importance (expected)	46	4.25	0.81			
Practice (reality)	47	3.52	0.96	-700	-3.6011	001
Importance (expected)	47	4.22	0.77			
Practice (reality)	48	3.22	0.77	-950	-5.374	000
Importance (expected)	48	4.18	0.81			
Practice	49	3.20	0.76	-825	-	000

Needs Assessment of Petra University for Competent Departments ...

Maram Abu Al nadi

	Para	SMA	Standard deviation	Difference	T value	Statistical significance
(reality)					4.229	
Importance (expected)	49	4.02	0.97			
Practice (reality)	50	3.25	0.93	-7875	-4.466	000
Importance (expected)	50	4.12	0.82			
Practice (reality)	51	3.18	0.87	-700	-3.255	002
Importance (expected)	51	3.88	1.04			
Practice (reality)	52	3.12	0.88	-950	-4.879	000
Importance (expected)	52	4.08	0.86			
Practice (reality)	53	3.38	0.67	-650	-3.855	000
Importance (expected)	53	4.02	0.83			
Practice (reality)	54	3.20	0.82	-1.100	-6.096	000
Importance (expected)	54	4.30	0.79			
Practice (reality)	55	3.22	0.66	-925	-6.451	000
Importance (expected)	55	4.15	0.62			
Practice (reality)	56	3.15	0.92	-1,000	-5.811	000
Importance (expected)	56	4.15	0.58			
Practice (reality)	57	3.20	1.02	-1,025	-5.085	000
Importance (expected)	57	4.22	0.77			
Practice	58	3.05	0.85	-1.075	-	000

	Para	SMA	Standard deviation	Difference	T value	Statistical significance
(reality)					6.111	
Importance (expected)	58	4.12	0.72			
Practice (reality)	59	3.25	0.93	-950	-4.425	000
Importance (expected)	59	4.20	0.99			
Total degree (practice)		3.28	0.44	-78014	-7,875	000
Total degree (importance)		4.06	0.46			

Fourth Question: Are there differences of statistical significance at level 0.05 in assessing the need for specialized departments in knowledge management ascribed to gender, experience and job title?

In order to identify the differences in assessing the need for specialized department in knowledge management ascribed to gender, experience and job title we used Three Way ANOVA test. Table No. (6) clarifies such issue

Table (6) Three Way ANOVA test to identify the differences in assessing the need for specialized departments in knowledge management ascribed to gender, experience and job title.

Source	Total squares	Free marks	Squares average	F value	Statistical significance
Intercept	8.160	1	8.160	20.579	000
Gender	0.047	1	0.047	0.119	0.732
Experience	0.408	1	0.408	1.029	0.318
Job title	1.502	4	0375	0.947	0.449
Fault	13.085	33	0.397		
Total	39.655	40			
Corrected total	15.310	39			

Dependant variable:

Table (6) offers the unavailability of differences of statistical significance at 0.05 level, in assessing the need for specialized departments in knowledge management at Petra University which ascribed to gender, expertise and job title variables. F statistical value registered (0.119, 1.029, 0.947) respectively, which are non-significance statistically at significance level 0.05. This lead us to the fact that the study sample individuals agree on their point of views as to need level to specialized departments in knowledge management at Petra University of all genders, expertise and job titles. Thus the need acquired high level.

Discussing the Results & Recommendations**1 Discussing the Generated Results**

The study results refer to the need of Petra University for high degree of practice's procedures relating to knowledge management from the study sample's point of views. The importance order comes as follows: Generating knowledge, knowledge sharing, knowledge acquisition, storing knowledge, knowledge acquisition, and knowledge planning then knowledge diagnosis.

Moreover, the results refer to the fact that knowledge generating reality displayed medium level in Petra University. Upon performing statistical comparisons between reality and importance, the need reason is represented by innovative individuals attracting minority in the university to general knowledge. On the other hand, generating knowledge, selecting, organizing, using, spreading thereof and further converting the information and expertise owned by the organization are considered necessary factors in terms of administrative activities, that increase the knowledge management level and also increase the personnel abilities to take administrative decisions within special standards in Petra University. The study outcomes came in conformity with Abu Al Nadi, 2014, Dickhauser & Reinhard, 2009 studies outcomes.

However, knowledge diagnosis displayed medium level while the importance displayed high level. Based on statistical comparisons, we could reach at differences of statistical significance between reality and importance which, indeed, predict the need. This result may be ascribed to depending on domestic expertise in the University and defining necessary knowledge on work practice. Knowledge diagnosis is considered one of the importance axles for any knowledge management program. On the light of diagnosis, policies and other sub-operation methods shall be set out. Knowledge diagnosis defines the gab between reality and importance to apply any program in knowledge management. Diagnosis is vital process as the objective thereof is to search behind the University knowledge, define the persons who carry such knowledge and their positions. Knowledge diagnosis also is considered one of the importance challenges that face the Universities in common and Petra University in particular.

As far as knowledge storing reality is concerned, it recorded also medium level in Petra University, which could be attributed to minor benefiting from IT, databases in particular, and minority of depending on the implied knowledge in the personnel minds. Knowledge storing process refers to the importance of organizational memory. Once conducting comparisons between reality and importance, the outcomes refers to statistical significance differences therein, which reflects that Petra University needs knowledge storing, as applying thereof is an important issue while storing thereof is considered necessary. We have to maintain the knowledge duly certified and stored in its databases. Storing is performed through various types of means or saving units, feedbacks once needed, investing, distributing and organizing thereof up to being activated and beneficial. Rawat, 2011 study outcomes seconded the importance of saving knowledge process and enhancing the relationship between knowledge management and technology bases.

The results displayed also that the knowledge sharing reality and knowledge distribution is at medium level in Petra University from the study sample point of view, which is ascribed to minority of activating the brainstorming, arguments, conducting courses and forums to share knowledge. The outcomes confirmed after comparisons between reality and importance, that there are differences of statistical significance among them. Knowledge sharing among personnel is a mean of success & development in the University, while Petra University depends on better knowledge for

its personnel. Once moving from a state to a better state the University must make sure that it owns the credible and suitable knowledge, and thus knowledge sharing is considered one of the most important factors of knowledge management as it achieve the competitive feature, improves the university capability to fulfill the personnel & students various needs. The study outcomes came in difference with those of Abu Nadi, 2014, & Othman, 2010.

From the generated results we could figure out that knowledge acquisition reality recorded medium level in Petra University which is ascribed to the fact that the University may not depend on domestic sources; conferences & arguments among individuals to acquire knowledge at enough degree, also minority in using the technology such as attending video conferences in good manner which may raise the knowledge management level in common which shall inflame the need for knowledge acquisition and maintain thereof, after conducting comparison test between reality and importance, which revealed statistical significance differences between them. We have to seek discussions which confirm the individual knowledge possessing, activating, improving thereof, and also work to carry it from person to another, from firm to another, or from university to another in good image which shall increase the university knowledge level and shall be reflected on the university reputation and efficiency. The outcomes herein are in harmony with those of Massaadah and Zaydeien, 2012, Zack, et al, 2009 studies.

The generated results also showed that knowledge mapping in Petra University came at medium level, which is attributed to the fact that Petra University does not bridge the knowledge gap, sufficiently, through creative knowledge. Moreover, Petra University does not perform its role to depend on the outcomes of applying forms to identify the University environment. The results also revealed that Petra University does not employ knowledge plans to clarify the relationships inside the university at required level, which showed a gab between future reality and importance to activate thereof in good manner in order to obtain the best uses and define the good plans of the knowledge, manage and distribute thereof, further to work ahead on such issue to specify the strength and weak points in the University and to take suitable decisions to support the accurate ones and solve originated problems. The foregoing works to classify the knowledge

planning to be necessary and vital in any case. The study outcomes came in line with that of Al Talbani, 2015.

Finally this study outcomes referred to the unavailability of statistical significance differences in need assessing to specialized departments in knowledge management at Petra University ascribed to Gender, expertise and job title. This offers explanation that all the sample individuals agree on the need level to specialized departments in knowledge management at Petra University, and such need recorded high level.

Recommendations

On the light of the study generated outcomes, the researcher set out the following recommendations: In this study, the outcomes refer to medium level in terms of procedures practice issue as to knowledge management at Petra University. Accordingly, the researcher sets out and suggests the following recommendations:

- 1 Increase the outreach and interest to practice the procedures of knowledge management at Petra University. Also To verify its role in developing, promoting and flourishing Petra University, in particular and all Jordanian Universities in common. Such step could be attained through conducting specialized courses, workshops, participating in domestic and universal conferences to increase the administrative Cadre efficiency and qualify it to take better decisions.
- 2 Working to conducting comparative studies between the Jordanian Universities, to identify the weak points and gaps then work to overcome it to be qualified to fill advanced stand in applying the knowledge management.
- 3 Creating changes in Petra University current polices and work to spread the outreach as to the knowledge management importance and impact thereof in the Administrative business, especially in decision making.
- 4 Working to establish good relations between Jordanian Universities through sustainable communications and site visits which have, indeed, positive role in applying the knowledge management.

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- 5 Circulating the study outcomes among Jordanian Universities to be aware of the importance extent to apply knowledge's management standards therein.

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