THE EFFECT OF KNOWLEDGE SHARING ON JOB PERFORMANCE IN JORDANIAN PUBLIC UNIVERSITIES

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ABSTRACT

This study aims to test the impact of knowledge sharing on job performance in Jordanian public universities. To fulfil this aim, a random sample consisted of (350) faculty members were selected from two Jordanian public universities (Yarmouk University, Jordan University of Science& Technology). Responses were collected through structured questionnaires from (244) faculty members of different disciplines at these two universities, with a response rate of 70%. The analyzed data showed that the level of sharing knowledge (both implicit and explicit), and the level of job performance among faculty members is moderate. It also showed that knowledge sharing process has an impact on job performance among these faculty members. The study provides some recommendations for the researchers in this subject.

INTRODUCTION

The business world is witnessing nowadays rapid changes as a result of the accelerating revolutions in the global economy, especially in communications and information technology sectors. This led to the spread of knowledge management as a modern administrative term for institutions of all kinds in the light of the knowledge economy. Knowledge management has become a cornerstone on which success of institutions and their prosperity and distinction are based on.

Institutions, especially higher education, need to keep abreast of all technological developments in order to create, manage and invest knowledge

efficiently in a manner consistent with its objectives and capability (Fauzi, et. al, 2019). Human resource is the main and influential engine in all components of development, as it has become at the forefront of the main measures of the wealth of nations, because it is the only one capable of using knowledge resources and harnessing them to achieve the goals of organizations (Al-Mahdi & Al-Hafez, 2015). As the distinction in the performance of institutions has become the subject of interest and wide discussion by various researchers, because the age of knowledge and information no longer recognizes the typical employment that is governed by the bureaucratic job specifications that prevailed in the traditional organizational structures, but rather depends on the elements that are distinguished by the distinction and diversity of knowledge (Alshare et al., 2020). If the organization is having technology, money, but its human resources were unqualified, unable and unwilling to work, it will inevitably fail to survive or achieve its goals. (Liang et. Al., 2007, De Carolis, 2003)

Knowledge sharing is an activity whereby information, experience and skills are exchanged among all employees within the organization, enabling it to keep pace with the changes and developments that encompass all areas of life (Alsafadi et al., 2020). These organizations are trying always to find ways to deal with the knowledge flow in a manner that enables them to make the best use of that knowledge (Widen-Wulff & Ginman, 2004). One of the main reasons for the gap between developed and developing societies is what is known as the knowledge economy, as developed countries are able to process their data and benefit from it by transforming it into knowledge, skills and experiences and managing it successfully, thus achieving success and recovery for their institutions (Mahafzah et al., 2020). While developing countries are still unable to benefit from the type and the huge amount of available databases, processing and investing it in a way that leads to raising the efficiency of the performance of its employees within its institutions (Jain, et.al 2007). Therefore, there is a relationship between knowledge sharing and enhancing job performance, because each of them is an important factor in achieving the goals of the organization (Aljawarneh & Atan, 2018). So, the purpose of this paper is to investigate about the level of knowledge sharing, and job performance, and the impact of knowledge sharing on job performance of faculty members at Jordanian public universities (Al-Omari, et al., 2020).

Study problem

This study deals with the subject of knowledge sharing, which has received great attention in recent years, especially with the development of the knowledge economy. Therefore, it had to be accompanied by development at the level of management and managerial thought, in light of the increase in the volume of information and knowledge received by the institution. In some organizations, especially Arab ones, still have shortcomings in applying knowledge-sharing processes. The process of creating, acquiring, distributing and applying knowledge in higher education institutions is considered to be of ultimate importance in gaining competitive advantage over other institutions. When higher education institutions are equipped properly with knowledge, they will be able to keep pace with the rapid developments in technology.

Therefore, the problem of the study lies in the ability of Jordanian public universities and their faculty members to reach a high degree of distinguished job performance through knowledge sharing. The problem appears when some of these faculty members do not share knowledge with their colleagues and others. The lack of qualified, trained and capable human resources to adapt to all variables and challenges may lead to weakness in the institution's ability to compete globally and regionally. In light of the competitive academic environment that Jordanian universities witness, the level of knowledge sharing is not up to the required level.

University professors are considered to be the pillars of the higher education institutions they are working for, where knowledge is created and shared. They are the main element that determines the success of knowledge sharing process at their institutions. Therefore, it is imperative to share knowledge and skills among university professors in order to improve their performance, raise their efficiency, and distinguish their ability to face future changes. This study is trying to investigate about knowledge sharing process and its effect on job performance of faculty members of Jordanian public universities.

This study tries to answer the following questions:

- What is the level of knowledge sharing among faculty members in public Jordanian universities?
- What is the level of job performance of faculty members of public Jordanian universities?
- What is the effect of knowledge sharing on job performance of faculty members in public Jordanian universities?

Importance of the study

The rapid changes and challenges in various fields have made the interest in sharing knowledge is an urgent necessity for all institutions, especially educational ones, because concerted efforts aim to provide employees with information and knowledge that will gain them skill and competence in performing their current and future work. Where the role of human resources lies in the investment of knowledge management and its generation to achieve effective and successful performance in order to achieve the objectives of the organization.

Therefore, this study is important because it focuses on studying the impact of knowledge sharing on enhancing job performance in Jordanian public universities, and achieving a new scientific addition to the Arab library, and the results of this study will give a new addition in the fields of business administration, which can serve as a reference for studies In addition, the results and recommendations of this study contributed to raising awareness of the importance of sharing knowledge among faculty members in Jordanian universities.

Study hypotheses

H0: There is no statistically significant effect of knowledge sharing at the significance level ($a<0.05$) on job performance in Jordanian public universities.
The following sub-hypotheses stem from this hypothesis:
H0-1: There is no statistically significant effect of explicit knowledge at ($a<0.05$) on job performance in Jordanian public universities.
H0-2: There is no statistically significant effect of the implicit knowledge at the level of ($a<0.05$) on job performance in Jordanian public universities.

Types of knowledge

Knowledge can be classified into two types; tacit and explicit. Tacit knowledge is an informal knowledge related to the behavior of individuals, their experiences and knowledge. It is difficult to document or share tacit knowledge, because it exists only in the human mind, and this type of knowledge is what makes the institution's privacy and competitiveness (Sohail & Daud, 2009). Explicit knowledge is formal knowledge of specific content that is easy to capture and store in databases and documents, where everyone can access, use and transmit, and can be expressed in drawings, writings, videos and speech (Girard 2006).

Knowledge sharing in higher education institutions

Knowledge sharing is a common practice among university academics. They can exchange ideas, information and knowledge among them. Universities are considered to be knowledge-based institutions that participate in the process of creating and distributing knowledge, which requires faculty members to undertake research and teaching and curriculum development functions (Kidwell, et. al, 2000). There are two types of knowledge can be found in universities: an academic knowledge, which is related to the learning and teaching process, and organizational knowledge, which is referred to how the overall institution functions. (Yeh,2005, Coukos-Semmel, 2003). Chong, Yuen and Gan (2014) conducted a study about sharing knowledge in public and private universities in Malaysia, and concluded that faculty members, at both types of universities, are willing equally to share information and teaching lectures and materials among them. Al-hammad et.al (2009) revealed that academic staff are less interested in sharing their knowledge than administrative staff at Jordanian public and private universities. Al-Hafez & Al-Mahdi study (2015) revealed that the practice of knowledge sharing among faculty members in some Arab universities, is in moderate range. Many researchers, through several studies, have concluded that knowledge sharing process is very important at higher education institutions and universities. (e.g. Ramayah et., al (2013), Kim & Ju (2008), Jain, et. al, (2015), Al-Hafez & Al-Mahdy (2015).

Job performance

The subject of performance is one of the topics in which views differ between researchers, and its definitions have varied among thinkers, each according to his perceptions and specialization**.** Job Performance can be defined as an expression of the level that an individual worker achieves when he performs his work in terms of quantity and quality (Al-Azawi & Jawad, 2011). Campbell et al. (1990) defined job performance as "observed behaviors that employees work in their jobs and related to the objectives of the organization." Al-Nimer (1990) defined job performance as the actual outcome of efforts done by the individual, and this performance is affected by the amount of the individual's exploitation of his energy, and at the same time by the desire of the individual to perform (Al-Tal, 1997). Job performance of a university professor is considered as a commitment on the part of the professor to the requirements of his job that has been assigned to him, such as teaching, directing students scientifically and morally, supervising students 'research and their scientific activities, carrying out his scientific duty in the fields of research and administrative direction, as well as adhering to the university's rules and regulations (Watkins and Thomas, 1991).

Functions of a university professor

A university professor is performing three main tasks in his job: Teaching, scientific research, and community service. The following is an explanation of the most important of these aspects of the teaching and education function.

Teaching is considered to be the most important duty of university professors. It denotes the method of transferring knowledge and experiences, developing skills, acquiring values, discovering talents and getting acquainted with everything new. A university professor has to be proficient in his field of specialization, well-informed, able to represent the subjects in the lecture in a clear and logical manner, taking into account the individual differences between students, and able to provide the suitable climate that ensures the success of educational process (Neumann, 2000; Saraira, 2011). He should be able to create an atmosphere of conversation and accept opposing scientific opinions, takes into account the social and economic conditions of students, and encourage students to learn and discuss in the classroom and use a variety of methods that are technology-based and focus on self-education, analytical creative thinking (Fauzi, et., al, 2019).

Scientific research

Scientific research is considered the main tool to find, develop and implement the knowledge in society. It's considered to be an important and dynamic element in the life of the university as an intellectual scientific institution. (Zahir, 1995) The international rank and position of any university reputation is linked with its published research (Masa'd & Aljawarneh, 2020). University professors conduct scientific research because they possess high capacities of organized thinking, innovation and the ability to employ and use knowledge in reality

Community service

In the function of community service the university professors perform two roles; the first role is inside the university they are responsible for participating in the students' activities, administrative roles and, membership of committees in the department, college and university levels. As for the second role from outside the university, they are conducting applied research that contribute in solving the problems of society (Al-Amayreh, 2006). In addition, they present advice and expertise for public institutions and the private sector, and participle in seminars and public lectures, and participating in the training courses that are offered to many leaders and workers at the community (Millcy, 2003).

Methodology of the study

The descriptive approach was used for this study, in order to suit the nature and objectives of the study and to achieve its objectives. The study population consisted of all faculty members, who are having academic qualifications in master's and doctorate degrees in scientific and human specializations, and those who are working in two public Jordanian universities located in north region of Jordan namely; Yarmouk University, and Jordan University of Science and Technology.

A randomized, organized sample of (350) academics in these two surveyed Jordanian universities was selected. A total of 350 self-administered questionnaires were distributed to the sample. (244) questionnaires were retrieved from the respondents, with a response rate of 70% of the sample. Table (1) shows the distribution of the sample individuals according to demographic characteristics.

Table 1: Frequencies and percentages of the sample according to demographic characteristics (n=244)

	Categories	(frequency)	Percentage (%)
Sex	Male	216	88.5
	Female	28	11.5
	Total	244	100.0
Age	Less than 30 years	244	6.6
	30-less than 39 years	16	31.1
	40-less than 49 years	76	39.8
	50 years and above	97	22.5
Scientific qualifications	Master	19	7.8
	Ph.D.	225	92.2
Years of experience	Less than 5 years	17	7.0
	5- 10 years	83	34.0
	10-15 years	81	33.2
	More than 15 years	63	25.8
University name	Yarmouk	125	51.2
	Jordan university of Science & Technology	119	48.8

	Total	244	100.0

The study relied on the questionnaire as a main tool for collecting data from the study sample. The questionnaire consisted of two parts: the first part comprised (16) questions related to demographic characteristics of the respondents. The second part included two measures, namely; knowledge sharing consisting of two sub-measures: explicit, and tacit knowledge, and job performance. Accordingly, the questionnaire consisted in its final form of (38) items distributed on two scales, where the first measure consists of (16) items distributed into two domains, and the second measure consists of (22) items. A five point Likert scale was used in this measurement, and the respondents were asked to determine the extent to which they agree or disagree with the items of the questionnaire in this measure.

Validity of the study instrument

In order to ensure the validity of the content of the study questionnaire, it was presented to a group of experienced and competent referees, with the aim of judging the validity of the linguistic wording of the paragraphs, their clarity, their suitability to measure what they were designed for, and the extent to which each paragraph belongs to the dimension and scale to which it belongs, in addition to any required procedure to delete, amend or add to the paragraphs of the questionnaire or suggestions they deem appropriate. The arbitrators' comments and suggestions were taken into account and the paragraphs of the questionnaire were amended based on the consensus of the majority of the arbitrators.

Reliability of the study instrument

To ensure the indicators of the reliability of the study tool (the questionnaire), it was applied twice, with a time difference of two weeks, to an exploratory sample consisting of (15) faculty members in Jordanian public universities from outside the study sample, and the calculation of the reliability coefficient between the two applications (Test- Re-Test.) by calculating the correlation coefficient (Pearson correlation). Also, Cronbach's alpha coefficient was calculated for the fields of the study, and Table (2) illustrates this.

Table 2: Cronbach's Alpha coefficient & Test-Re-Test values for the questionnaire of the study

	Number of paragraphs	Cronbach Alpha coefficient	Test Re-Test
Explicit knowledge	8	0.83	0.92
Tacit knowledge	8	0.84	0.90
knowledge sharing	16	0.90	0.91
job performance	22	0.94	0.95

The results showed the value of Cronbach alpha method for the field of explicit knowledge (0.83), and for the field of implicit knowledge (0.84). The Cronbach alpha value for the measure of knowledge sharing as a whole was (0.90). This

is considered to be acceptable according to Hair et al. (2006), a reliability score of (0.60) is an edge that is acceptable.

The reliability coefficient was 0.91 by Test-ReTest. For job performance, the value of Cronbach alpha was (0.94), and the reliability coefficient by (Test .R test) was (0.95). All values indicate a high and acceptable degree for the purposes of applying the study tool.

RESULTS OF STUDY

The results of this study are presented in this part according to the study questions.

Presentation and discussion of the results of the first question of study:

What is the level of knowledge sharing among faculty members in Jordanian public universities?

To answer this question, means and standard deviations were extracted for all domains and paragraphs of each field according to the level of knowledge sharing among faculty members in Jordanian public universities. Table (3) below illustrates this:

Table 3: Means and standard deviations for the fields of knowledge-sharing level (n = 244)

No.	Domain	Mean	Standard deviation
1	Explicit Knowledge	3.46	0.68
2	Implicit knowledge	3.54	0.71
	Knowledge sharing (explicit & implicit)	3.5	0.64

Table (3) shows that means and standard deviations for the fields of knowledge sharing among professors in Jordanian public universities ranged between (3.46-3.54). The average of the scale as a whole is (3.50) with an average degree. The following is a presentation of the averages and standard deviations for the paragraphs of the two fields; explicit and implicit knowledge.

Table 4: The average and standard deviations for all paragraphs of the first domain "explicit knowledge" and the second domain "Implicit Knowledge" (n = 244)

No.	Paragraph	Average	Standard deviation
	First domain: Explicit Knowledge		
1.	The university has resources for obtaining explicit knowledge (such as books, magazines, articles).	3.39	1.01
2.	The university helps generate new knowledge for faculty members through explicit knowledge sources available at the university.	3.51	0.99
3.	The university obtains books and articles from many different sources.	3.56	0.99

4.	The university continuously monitors any updates in order to obtain updated explicit knowledge (latest books and articles).	3.45	1.05
5.	The university registers various sources of knowledge (books and articles) in an organized manner	3.67	1.02
6.	Explicit knowledge objectives are designed, results measured, and feedback obtained from faculty	3.45	1.08
7.	The university provides means of technological communication that facilitate the process of sharing information among faculty members	3.16	0.90
8.	The university continuously provides the accurate and important contents of books and articles.	3.46	0.99
	The domain as a whole	3.46	0.68
	Second domain: Implicit Knowledge		
9.	I provide colleagues with new information about courses and study plans.	3.48	1.04
10.	I Accept knowledge from colleagues about pedagogical development.	3.41	1.01
11.	I share with my colleagues at the university ideas about scientific research.	3.45	1.01
12.	I do joint research with my colleagues.	3.82	1.05
13.	I am Interested in spreading the new knowledge I possess among colleagues.	3.54	1.03
14.	I attend scientific panel discussions to share experience and knowledge together with colleagues.	3.43	0.94
15.	I help new colleagues to obtain knowledge and gain experience.	3.63	1.02
16.	I always provide knowledge and experience that I have to those colleagues who need it.	3.57	1.04
	Domain as a whole	3.54	0.71

Table (4) shows that the averages in the field of "explicit knowledge" ranged between (3.16-3.67). The average for this field as a whole was (3.46), with a moderate degree. Also, it shows that the averages in the field of "implicit knowledge" ranged between (3.41-3.82), and average for the field of "implicit knowledge" as a whole is (3.54) and with a moderate degree.

Presentation and discussion of the results of the second question of study:

What is the level of job performance of faculty members at Jordanian public universities?

To answer this question, averages and standard deviations were extracted to all the paragraphs of the job performance level of faculty members at Jordanian public universities, Table (5) illustrates this.

Table (5) Averages and standard deviations for all paragraphs of job performance of faculty members Jordanian public universities, (n = 244)

No.	Paragraph	Average	Standard deviation
1.	I keep lecture times	3.82	1.00
2.	I collaborate with my colleagues.	3.68	1.07
3.	I have sufficient knowledge of my work.	3.63	1.05
4.	I adhere to business rules and procedures.	3.74	1.04
5.	I actually use my lecture times.	3.64	0.97
6.	I direct the students to undertake several activities to obtain knowledge	3.73	1.04
7.	I participate in seminars and scientific meetings related to community service constantly	3.53	1.01
8.	I have the ability to make decisions in the tasks required of me	3.60	1.00
9.	I relate theoretical information with practice in lectures	3.51	0.96
10.	I make sure to attend conferences and seminars.	3.62	0.96
11.	I make sure to attend performance development workshops	3.60	0.99
12.	I apply new teaching methods and strategies.	3.68	1.10
13.	I use several methods in evaluating students' work	3.88	1.05
14.	I clarify ideas and concepts when presenting them to students	3.81	1.03
15.	I always try to fulfil academic and professional growth	3.48	0.97
16.	I make sure to read recent books on my field	3.50	0.94
17.	I always communicate with my students	3.68	1.03
18.	I have the ability to act rationally in critical situations.	3.79	1.04
19.	I always try to conduct scientific research	4.09	1.02
20.	I keep developing my research skills	4.20	0.96
21.	I make sure to conduct actual activities to serve the community institutions	3.86	1.01
22.	I am constantly evaluating my performance	3.84	1.05
	Domain as a whole	3.72	0.68

Table (5) shows that averages for the “job performance” scale ranged between (3.48-4.20). The average of "job performance" measure as a whole is (3.72) with a high degree.

Presentation and discussion of the results of the third question:

What is the effect of knowledge sharing on the job performance of faculty members in Jordanian public universities?

To answer this question, a correlation coefficient (Pearson) was extracted between knowledge sharing and the job performance of faculty members in Jordanian public universities, Table 6 illustrates this.

Table 6: The correlation coefficient between knowledge sharing and job performance of faculty members in Jordanian public universities (N = 244)

	Independent variable	**Explicit knowledge**	**Implicit knowledge**	**Knowledge sharing as a whole**
job performance (dependent variable)	correlation coefficient	0.645	0.781	0.769
	Significance	0.000	0.000	0.000

Table (6) shows that the correlation coefficient between explicit knowledge and job performance among faculty members in Jordanian public universities was (0.645). The correlation coefficient between implicit knowledge and job performance among professors in Jordanian public universities was (0.781). The correlation coefficient between knowledge sharing and job performance of professors in Jordanian public universities as a whole was (0.769). The statistical significance value of all variables is (0.000). This indicates a positive correlation between knowledge sharing and job performance of faculty members in Jordanian public universities.

Testing hypotheses of the study

To test the main hypothesis, a multiple regression analysis was applied to reveal the effect of knowledge sharing (implicit and explicit) as independent variables, on job performance as dependent variable. Table (7) illustrates this.

Table (7) shows that the value of (F) was (199.014) and statistical significance is (0.000). The value of (R) was (0.789), which represents the correlation coefficient between the independent variables (knowledge sharing; explicit and implicit knowledge) and the dependent variable, job performance. The value of (R^2) reached (0.623) which represents the ratio of the influence of the independent variables on the dependent variable. The value of (t) for the field of explicit knowledge was (2,9) and the statistical significance (0.004). The value of (t) for the field of implicit knowledge was (11,488) and the statistical significance is (0.000). Thus, the sub-hypotheses, and the main hypothesis are rejected, while alternative hypotheses are accepted, and they become as follows:

Table (7) Results of a multiple regression analysis to reveal the effect of knowledge-sharing domains on job performance.

Independent variables	T	*P*	F	B	R	R^2	F	*P*	Durbin-Watson	Result of hypothesis
Explicit Knowledge	2.9	0.004	0.167	0.167	.0789	0.623	199.014	0.000	1.760	H0-1 Reject
Implicit Knowledge	11.488	0.000	0.660							H0-2: Reject

H1: There is an effect at the significance level ($\alpha \leq 0.05$) for sharing knowledge of its dimensions (explicit knowledge, tacit knowledge) on job performance in Jordanian public universities.

H1-1: There is an effect of explicit knowledge at a significance level ($\alpha \leq 0.05$) on job performance in Jordanian public universities.

H1-2: There is an effect of the tacit knowledge at a significance level ($\alpha \leq 0.05$) on job performance in Jordanian public universities.

CONCLUSION

After analyzing the questionnaire and testing the hypotheses of the study with suitable statistics, the study found that the level of sharing knowledge (of both types; explicit and implicit) among faculty members at the two surveyed universities (Yarmouk University and Jordan University of Science &Technology) is moderate. Indicating the university professors are involved in transferring tacit and explicit knowledge they possess to their colleagues and students at the university. Some faculty members tend to be independent, working individually and focusing on achieving their academic goals individually more than their interest to achieve organizational goals and thus have less desire to share knowledge with their colleagues at the university.

In addition, the study revealed that the level of job performance of faculty members of the two surveyed universities is high, and that knowledge sharing has an effect on job performance of this faculty. It also indicates their interest to provide cooperation with their colleagues at the university through sharing the knowledge they acquire. The faculty members of these two surveyed universities also see that the processes of knowledge sharing between them lead to the generation of new knowledge because of the convergence of different experiences and skills between them.

RECOMMENDATIONS

The study recommended the following; the necessity of using modern technologies to form an organizational memory for the universities that includes successful work experiences of their faculty members. Encouraging cooperation between faculty members at the university through joint research, and building academic courses. Building trust relationships between faculty members on one hand and between them and university administration on the other hand, through empowerment, appreciation and recognition of efforts and initiatives. The necessity to use appropriate administrative practices in line with knowledge sharing among faculty members. The necessity of training and preparing new faculty members for knowledge-sharing activities in the colleges in which they work. The university should supports faculty members in order to convert their tacit knowledge into explicit knowledge through lectures and workshops at the university. The university should offer more advanced infrastructure that facilitates application of knowledge sharing at any time among faculty members. The university administration should provide clear insights for the application of knowledge sharing among its faculty members. It is necessary to establish a fair system for evaluating the process of knowledge sharing of faculty members, such as setting clear evaluation criteria, transparency, efficiency, cooperation and teamwork.

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