

# The Impact of collaborative Knowledge and Organizational Memory on the Quality of the Managerial Decisions in the Libraries of Jordanian Public Universities

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#### Abstract

This study aimed to discuss the importance of the collaborative knowledge and organizational knowledge and their ability to maintain the performance of the library that is based on the experience, knowledge and making strategic decisions. In addition to specifying the required knowledge sharing, applying and evaluating it in order that the library obtain a permanent competitive advantage, through its contribution to enable the library to adopt further innovations represented in new goods and services. The process of collaborative knowledge is considered the tool of the library for intellectual capital investment, by making access to knowledge generated for other people in need easy and possible. The quality of managerial decisions depends on the concentration on adopting correct and appropriate choices, generated through making knowledge and developing networks linking employees to share knowledge.

The study has focused on the discussion of the impact of collaborative knowledge and organizational memory on the quality of the decisions taken at the university libraries, and by identifying the impact libraries could identify strengths and weaknesses in sharing knowledge between employees engaged in the library. So trying to enhance the strengths and developing it to increase the efficiency of employees and achieving competitive advantage.

The researcher has adopted the descriptive analytical approach in data collection, analysis and reaching to the results. Based on the results of the study it has been recommended that the departments and decision-makers in university libraries in Jordan should identify impediments to the process of applying the active participation of knowledge, and work to reduce them in order to achieve its goals and enhance its competitive position.

Keywords: collaborative Knowledge, Memory, Quality, Managerial Decisions, Libraries, Universities,

#### 1. Introduction

Communities depend on higher education institutions in contributing effectively in building knowledge through what is available in those institutions of the creative human potential and possibilities for advanced education, and higher education institutions as organizations, presumably has been considered as a factor for movement, because its function is to utilize knowledge in the work, and to function knowledge in the field of the tools, processes, products, and knowledge itself.

The Organization must be designed in a constantly changing situation, so it will be an organization that is capable of creativity, which indicated by the economist Joseph Schumpeter as the destructive innovation, so creativity should aim to the organized leaving of what is founded, usual, customary and comfortable, whether it affects the products, services, human and social relations or skills, it's the rapidly changing nature of knowledge, so what is considered today certainly becomes tomorrow's preposterous (Drucker, 2001).

Metcalfe (2005) emphasizes on the importance of describing knowledge management in the educational institutions, and indicates that knowledge is the realized understanding that enable people to share and utilize the available information, and as soon as this knowledge has been applied to make specific decisions or to solve problems, they will be transformed into procedures and the cycle of procedures (data-information-knowledge) is a basic cycle.

Universities have a special position among the educational institutions, as they are makers of the national cadres planning to and leading the development, they are considered the mastermind, and national advisory office that does not shy away from the town to provide experiences and solve problems and guide actions in various sectors, and the universities were in the history of humanity and still in many countries not only radiation centers but also center where many cities established



around it, and many institutions have founded to serve it, so it is necessary that the universities should entrust to consequentially developing and ensuring quality standards to satisfy the peoples and guarantee to meet the mission for which the universities were established. (Taima et al., 323: 2004)

Knowledge sharing process takes multiple images and can occur without the presence of technology in certain situations, such as direct contact that occurs between individuals in conferences, meetings, training workshops, dialogues, exchange views, and various self assessment method, these ways of communications enable individuals to get tacit knowledge in the minds of individuals and make it easier to share and benefit from them, and this enhances the importance of the role of human factor in the success of knowledge management and sharing it along with technology, since information and technology are of little value if it does not finds the one who manages it efficiently. Technology plays a catalyst that enables and facilitates knowledge sharing through the Internet, they are a means to improve the exchange of information, dissemination and knowledge sharing, support collaboration and interdependence between parts of the organization, increase the effectiveness of coordination and access to information in a better and faster way, and facilitates the practice of electronic brainstorming, exchanging electronic dialogues and discussions within and outside the organization (Hasan, 2008)

Organizational memory is considered the storage of the knowledge of the organization for future usage and as the organization is effective in utilizing this storage as this is considered as an indication of organizational learning from one side and goal achievement from the other side (Hung, 2011:215). This is not attributed to the fact that the organizations do not organize its knowledge in a good and further usable but to its complete involvement in its projects the matter that makes it lose its ability to utilize of the previous learned lesson of the past projects especially in the organization that are poor in the documentation of its experiences. This was the basic reason of concern of the organizational memory in the beginning. The process of sharing and storing knowledge in the memory of the organization is related with developing new work practices that increase the mutual connection of the individuals of the one work team. Decision makers are involved in knowledge work; they held high positions in the library departments and their experience are reflected in developing official programs and achieving the quality that build innovation and working by the culture of group. Education in Jordan has experienced a great attention at the various levels because of the international changes and developments to cope up with the needs of the society and its individuals through the preparation of human, technical, scientific, cultural and professional potentionals and cadres.

## 2. The problem and the questions of the study

Facing the challenges of this century requires a radical change in the role of business organizations in the field of collaborative knowledge which leads to losing many of chances that organizations - and educational institutions one of it-could have which was reflected of the quality of its managerial decisions, but this could be the reason for taking a wrong decision, the matter that leads the stakeholders of the educational institutions especially the Jordanian ones to turn to other institutions to have the efficient service, and spreading the dissatisfaction feelings among the stakeholders.

This matter has driven the researcher to study the current subject to verify the impact of the collaborative knowledge and organizational memory on the quality of managerial decisions taken in the libraries of Jordanian universities.

The problem of this study may be focused in knowing the nature of the relationship between collaborative knowledge and organizational memory, and the impact of each of collaborative knowledge and organizational memory on the quality of the taken managerial decisions, and specifically may represented in the following questions:

- What is the relationship between the collaborative knowledge and organizational memory in the libraries of Jordanian universities? To extent does the collaborative knowledge in libraries of Jordanian public universities impact the quality of the managerial decisions (directive; consequential; rare)?
- To extent does the organizational memory in libraries of Jordanian public universities impact the quality of the managerial decisions (directive; consequential; rare)?
- What is the impact of both collaborative knowledge and organizational memory together on the quality of the managerial decisions (directive; consequential; rare)?

## 3. The objectives of the study

Based on the research gap in previous studies related to the relationship of collaborative knowledge and organizational memory specifically study the combined effect of both collaborative knowledge and organizational memory on the quality of managerial decisions, particularly at the libraries of Jordanian universities, so this study aims to build and test a conceptual model of predetermined relationship through the following objectives:

1. Determine the impact of collaborative knowledge of the libraries of Jordanian public universities on the quality of managerial decisions.



- 2. Determine the impact of organizational memory of the libraries of Jordanian public universities on the quality of managerial decisions.
- 3. Describe the nature of the relationship between collaborative knowledge and organizational memory of the libraries of Jordanian public universities.
- 4. Determine the impact of both collaborative knowledge and organizational memory jointly on the quality of on the quality of managerial decisions taken at the libraries of Jordanian public universities.

#### 4. The importance of the study

The importance of this study emerges from the following points:

- 1. It combines the study of different subjects, diagnoses the interaction of its variables so as to contribute to the development of new concepts and data about its subjects.
- 2. It avoids the lack of field studies that link current research topics and its variables, this research seeks to develop the relationship between collaborative knowledge and organizational memory and examine the impact of this relationship and exploring its future viability.
- 3. The topics of the study are of great importance in both strategic and organizational literature, and that the study will guide the attention of decision makers to one supporting joists to make right decisions, to face surrounding challenges, moreover to the scientific foundations that will be available to the management of service organizations, which falls within the logic of adapting what is available in the strategic and organizational views.
- 4. It focuses on a vital sector (libraries of public universities) whose role is to upgrade the knowledge of different sectors of society.

## 5. Study Hypotheses

#### 5.1 First Main Hypothesis H01

There is no statistically significant relationship between collaborative knowledge and organizational memory in the libraries of Jordanian public universities at significance level of ( $\alpha \le 0.05$ ).

## 5.2 Second Main Hypothesis H02

Collaborative knowledge has no statistically significant impact on the quality of the managerial decisions (directive; consequential; rare) at significance level of ( $\alpha \le 0.05$ ). From this main hypothesis one could derive the following subhypotheses:

 $H0_{2-1}$ : Collaborative knowledge has no statistically significant impact on achieving the direction in managerial decisions in the libraries of Jordanian public universities at significance level of ( $\alpha \le 0.05$ ).

 $H0_{2-2}$ : Collaborative knowledge has no statistically significant impact on continuing the taken managerial decisions in the libraries of Jordanian public universities at significance level of ( $\alpha \le 0.05$ ).

 $H0_{2-3}$ : Collaborative knowledge has no statistically significant impact on the rareness of the managerial decisions in the libraries of Jordanian public universities at significance level of ( $\alpha \le 0.05$ ).

## 5.3 Third Main Hypothesis H03

Organizational memory has no statistically significant impact on the quality of the managerial decisions (directive; consequential; rare) at significance level of ( $\alpha \le 0.05$ ). From this main hypothesis one could derive the following subhypotheses:

 $H0_{3-1}$ : Organizational memory has no statistically significant impact on achieving the direction in managerial decisions in the libraries of Jordanian public universities at significance level of ( $\alpha \le 0.05$ ).

H0<sub>3.2</sub>: Organizational memory has no statistically significant impact on continuing the taken managerial decisions in the libraries of Jordanian public universities at significance level of ( $\alpha \le 0.05$ ).

 $H0_{3-3}$ : Organizational memory has no statistically significant impact on the rareness of the managerial decisions in the libraries of Jordanian public universities at significance level of ( $\alpha \le 0.05$ ).

## 5.4 Fourth Main Hypothesis H04

The relationship between collaborative knowledge and organizational memory has no statistically significant impact on the quality of the managerial decisions (directive; consequential; rare) at significance level of ( $\alpha \le 0.05$ ).

## 6. The limits of the study

Spatial boundaries: spatial boundaries are the libraries of Jordanian public universities.

Human boundaries: consist of the workers in the libraries of Jordanian public universities from upper and middle management levels.

Time boundaries: the period of time to complete the research will be by the year of 2012.

Scientific boundaries: the current study in identifying collaborative knowledge variables depended on what is reported by both (Wang, et. al, 2009: 99-122). With regard to the organizational memory, the researcher relied on what was indicated by



(Olivera, 2000; Bloodgood & Salisbury, 2001; De Long & Fahey, 2000; Szulanski & Winter, 2002). According to the variable of the quality managerial decisions it has been based on criteria specified by (& Wheelen Hunger, 2008: 20).

## 7. Procedural Definitions

The study adopted the following definitions:

**Quality:** Defined as "the Union of efforts and the investment of the potentials of the various administrators and employees collectively to improve the administrative approach and its specifications (Ilemat, 2004: 16)

**Jordanian universities:** the researcher procedurally defines it as: "the public Jordanian universities (University of Jordan, Yarmouk University, Mutah University, Jordan University of science and technology, the Hashemite University, Al al-Bayt University, Al- Balqa' Applied University, Al-Hussein Bin Talal University, Tafila Technical University, The German Jordanian University) by which the current study is limited.

**Collaborative Knowledge**: the process that takes multiple images, as direct contact that occurs between individuals in conferences, meetings, training workshops, dialogues, exchange views, and various self assessment method (Wang, et ...al, 2009: 100).

**Organizational memory**: collection of experiences, ideas, knowledge and skills acquired over time, and that is transferred to new employees in the organizations through communications, meetings, training courses, public relations (Olivera, 2000).

**Quality of managerial decisions**: Decisions that are characterized by dealing with a long-term future in all parts of the organization (Wheelen & Hunger, 2008: 20). It will be measured through rare, consequential and directive.

Rare: decisions are unusual and typically have no precedent to follow. (Wheelen & Hunger 2008: 20).

Consequential: Strategic decisions commit substantial resources and demand a great deal of commitment from people at all levels. (Wheelen & Hunger 2008: 20).

Directive: decisions set precedents for lesser decisions and future actions throughout an organization. (Wheelen, Hunger & 2008: 20).

## 8. Topic II: theoretical background and previous studies

#### 8.1 Collaborative Knowledge:

One could not talk about collaborative knowledge within the organization without talking about the transfer of knowledge, because knowledge transmission process within the organization is the decisive step towards collaborative knowledge within the organization, as Coakes (2003) refers that the process of knowledge transfer is the first step in the process of collaborative knowledge. Knowledge transfer process means the delivery of appropriate knowledge to the right person at the right time and in the appropriate form and appropriate cost.

Marquardt (2002) indicates that knowledge that is shared within organizations either intentionally, or unintentionally. By the intentional form, knowledge is shared intentionally within the Organization through programmed individual contacts between individuals, or through written methods such as: memos, reports, newsletters, and various types of in-house publications. In addition, knowledge is shared intentionally through the use of video and audio tapes, conferencing and internal seminars, mentoring programs, internships, and transferring and recycling business between members. Unintentional form means participation of unintentional knowledge within the organization through informal networks, stories and myths and the like.

To facilitate the process of collaborative knowledge is considered of the goals pursued by organizations today, there are constraints limiting collaborative knowledge process, which indicated (Al-Shammari, 2008: 45-50):

First: difficulty relating to tacit knowledge, which cannot be moved by education or training and represents that part which cannot be included in the standard specification of tasks in the manuals or in the group description to new knowledge. So part of the new knowledge remains tacit which cannot be moved or shared and requires time to repeat it to others and learned slowly and deliberately and needs exercise. This difficulty is what makes the organization at least in the initial period of establishing knowledge encounters conflict between the ones who have the new tacit knowledge and those who do not.

Second: difficulty related to the professionals who holds the new knowledge, these may not tend to share their knowledge with others as it is a one source of their influence and their importance in the organization.

Third: Ignorance, although information technology (IT) made the possibility of communications high and continuous, but in many cases there is an obstacle to ignore appears between the sender and the recipient, since neither of them knows that the other possesses knowledge that he looks for, the matter which produce negative behaviors.

Fourth: the obstacle of the absorptive capacity of the recipient, that knowledge may be transferred collaboratively to designated parties but the absorptive capacity inhibits the achievement of effective collaboration.

Fifth: the absence of reliable and powerful personal association that may hinder the willingness of each of the parties to access the other in an appropriate way and this certainly leads to reduce the possibility of transferring and sharing knowledge.



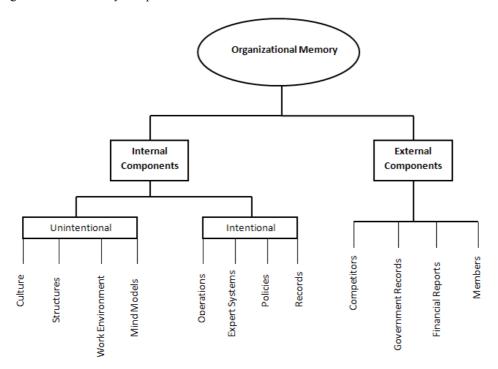
## 8.2 Organizational memory:

The terms organizational memory back Memory and organizational memory systems have been emerged in the 1990s when the controversy whether it is fashionable, rhetoric words or facts, and the concept was related to databases and warehousing systems and groupware and knowledge management (Al-Omary, 2010: 100).

Fisher (1999) defined organizational memory as information systems based on registering knowledge for the purpose of making it useful for people and projects through future social applications.

Organizational memory is divided into internal memory and external memory (Anand; et ...Al, 1998: 797-798). Internal memory inturn is divided into target memory or deliberate (Intentional), this includes, expert systems, databases, records, reports, and lessons learned in addition to the policies, products and manufacturing processes. The unintended internal memory (Unintentional) that is represented in the company culture including mythology; stories; language; and symbols in addition to tasks and roles (and structures and activity theories). The external memory it found in the knowledge existed in an external archive. Although it is not part of the organizational memory by itself, but it retains information about the organizations past that can be retrieved and used. These include the following sources: the organization's financial reports; former members of the company; competitors; and Government records. The following figure shows the components of organizational memory.

Organizational memory components



# 8.3 Quality of managerial decisions:

Managerial decision is the essence of the administrative process and the basic means to achieve the objectives of the organization, and the decision has an extensive process in different areas of management, as it contributes primarily to empowerment of the organization to continue its administrative efficiency and effectiveness (Hasan, 2008: 73).

Managerial decisions are represented by the decisions that define the basic path of the organization and its direction in light of the expected and unexpected variables that may occur in the local environment and ultimately constitute the real objectives of the Organization and help to draw the outline by which the organization exercises and directs the distribution of resources and determine the effectiveness of the organization (Mintzberg & Quinn, 1996: 5).

The quality of managerial decisions are the subject of debate and controversy, and the good decision refers to the goals that the organization is seeking to achieve, and can achieve an acceptable level of proportionality between the means and purpose within certain circumstantial data (Brouthers, et...al, 1998: 131-132). The managerial decisions of the organization are affected by a wide range of factors, namely:



- 1. Power and policies, the ability of managers at making and adopting decisions in the organization are affected by the nature of the practice of power and authority between managers and other parties' related directly or indirectly to the presence of the organization.
- 2. External control that appears in the nature of relations with foreign groups, the extent of the influence exerted by these parties to decision makers and decision takers.
- 3. administrative characteristics, the personal and value characteristics of decision maker affect the making and the adoption of the decision, the decision maker may be new, and therefore be more inclined to make decisions under high risk or be a manager less inclined to risk, as well as personal characteristics influence before specialization and experience on decision making. It is important to note that the decision-making processes involves many parties, and are influenced by other parties.

#### 9. Previous Studies

- The study of (Al-Shammary and Al-Dowairi, 2004) that entitled "knowledge management and its role in enhancing the process of making the strategic decision: a field study to explore the opinions of a sample the managers of industrial companies in Bagdad." This study aimed to identify the existence of a substantial correlation between knowledge management and its types (explicit and implicit) with the process of adopting strategic decision taken by the managerial leadership in addition to the innovation decisions of human resource. The study concluded that most of the managers in the sample are aware of and agreed upon in opinion about the importance of the information and data in the organization and its structures by all what it means of knowledge it has and its important role in future planning for the organization, and the low level of the perception and understanding of the implicit knowledge that is represented by the skills, experiences and abilities owned by the individuals of the organization to access the designed goals and facing the challenges within the competitive environment of their organizations.
- The study of (Al-Omari, 2010) entitled "the role of information technology and knowledge management in building organizational memory." This study aimed to perform a descriptive study to explain the role of information technology in building organizational memory to improve the solving of organizational problems and making decisions, in addition to identify the pressing reasons to build organizational memory and clarifying the role of organizational memory in using organizational intelligence and in the excellence of security institutions it owns and uses. The study concluded that building and maintaining organizational memory requires the availability of the basic infrastructures of information technology necessary for the security institution that consists of hardware, software, human resource, networks, communications and data that is available in the departments of criminal information, laboratories, and criminal evidences.
- The study of (Steiger & Steiger, 2007) that entitled "Decision Support As Knowledge Creation: An Information System Design Theory." This study aimed to identify the role played by the decision support system in improving the quality of decisions. The sample of the study consisted of 82 mangers working in information technology sector in Singapore. The study concluded to many results, the most important of it is that decision support system has a great role in improving the quality of the adopted decisions.
- The study of (Iuliana,2007) that entitled "The role of tacit knowledge management in ERP systems implementation." This study aimed to identify the role of the management of tacit knowledge in executing the enterprise planning resources> the sample of the study consisted of 86 managers working the sector of producing food. The study concluded that the management of tacit knowledge has a great role in executing and the success of enterprise resource planning.
- The study of (Tee, 2005) entitled "Sharing and Cultivating Tacit Knowledge in an E-learning Environment, A Naturalistic Study." Which was performed in Kansas university, this study aimed to better understanding of the circumstances and processes that help in enhancing the collaboration and yielding te fruits of tacit knowledge, through networks and electronic learning environments, the course across network in business administration was selected. Te results indicated that the course that encourages the operations and develop the suitable circumstances with the model of (SECI) to find knowledge. The study also concluded that the students had gained better viewpoints as a result of applying tacit knowledge in the electronic learning environments.
- The study of (Michailova & Husted, 2004) entitled Decision making in organisations hostile to knowledge sharing aimed to focus on the characteristics of the strategic decisions in Russian organizations, in addition to describe the role of the collaborative knowledge in the process of decision making. The researchers have made 53 interviews from 25 companies in the past 6 years. The study concluded that collaborative knowledge between workers in the Russian organization improves the returns of the adopted strategic decisions.



#### 10. Method and Procedures

## 10.1 The methodology of the study

The present study is an empirical study based on descriptive analytical approach, using the questionnaire which was developed as a tool to get information needed by the applied side of the study, with the objective of data collection and analysis and hypothesis testing.

## 10.2 The population and sample of the study

The population of the study consists of the libraries of the public universities. The sample includes the population as a whole. The sampling and analysis unit will be represented by staff the libraries of universities of upper and middle management levels whose total number equals to (112).

To determine the members of the sample of the study, Convenience Sampling was adopted as the sample method as it is a sample where selecting units of population is on the basis of ease and convenience through the availability of people to distribute the questionnaire on them (Al-Noaimi, et al., 2009).

Thus the number of the members of the sample and the analysis unit equals (112). (112) copies were distributed (89) restored by a (79.5%).

Table (1) The distribution of the members of the sample by demographical variables

No.	Variable	Category	Frequency	Percentage
1	Age (years)	Less than 30	16	18%
		From 30 - 34	28	31%
		From 35-39	32	36%
		40 and more	13	15%
2	Gender	Male	82	92%
		Female	7	15%
3	Scientific	Bachelor	69	62%
	qualification	Higher diploma	19	17%
		Master	16	14%
		PhD	8	7%
4	Experience	5 year and less	31	35%
		From 6-10	47	53%
		From 11- 15	8	9%
		16 years and more	3	3%

The applied statistical treatment: in order to answer the questions of the study, the researcher used Statistical Package for Social Sciences – SPSS through which he used the following statistical methods:

- Frequencies and percentages
- Cronbach's Alpha factor To ascertain the degree of stability of the standard used
- Arithmetic averages and standard deviations in order to answer the questions of the study and knowing the relative importance of each item of the dimensions of the study.
- One sample T test to verify the significance of items.
- Multiple and simple regression analysis to investigate the relationship and impact between the variables studied.

## 11. Study tool:

The study consists of two parts; the first is linked to the theoretical side which will clarify the contents of both collaborative knowledge and organizational memory and the quality of managerial decisions. In the second part of the study which is related to the applied side of the study the researcher will apply the descriptive analytical approach in order to collect and analyze data and test the hypotheses.

The current study will be based on two sources to collect and analyze data:

- A Secondary sources: books, periodicals, theses, aiming to build a theoretical framework for research.
- ♣ Primary sources: questionnaire, which will be designed by a group of writers, scholars and specialists in the three variables of the study using pentatonic Likert scale, so every answer will take a relative significance using SPSS statistical package.

To answer the study questions and test the hypotheses the researcher will adopt the following statistical methods:



- Frequencies and percentages: to describe demographic variables of the individuals of the sample.
- Arithmetic means and standard deviations: to answer the study questions for each of item of the dimensions of the study.
- Confirmatory Factor Analysis: which is one of the applications of the structural equation model, unlike to exploratory factor analysis, confirmatory factor analysis allows opportunity to define and test the validity of specific measuring models that are built in light of earlier theoretical foundations. The followed procedures factor in confirmatory factor analysis in determining the supposed structural model which consists of the latent variables (non measured and measured variables.
- A Cronbach's Alpha: to ascertain the degree of stability of the measure used.
- ♣ Simple and multiple regression analysis: to measure the impact of one independent variable or more on the dependent variable.
- A Canonical Correlation analysis: using Statistica program to study the impact of the relationship between collaborative knowledge and organizational memory on the quality of administrative decisions.

## 12. The consistency of the tool of the study

The researcher applied Cronbach's Alpha formula to verify the consistency of the study tool on the respondents, although the measurement of rules of the required value are not , but obtaining (Alpha  $\geq 0.50$ ) in the practice of Administrative Sciences and Humanities is generally acceptable (Sekaran, 2003). Table 2 shows the results of the consistency of this study tool.

Table (2) Internal consistency coefficient of the dimensions of the questionnaire (Cronbach's alpha scale)

No.	Dime	nsion	Alpha Value (α)					
1	Collal	borative Knowledge	0.838					
2	Organ	nizational memory	0.826					
3	The q	uality of strategic decisions	0.865					
3-1		Rare	0.759					
3-2		Consequential	0.767					
3-3		Directive	0.738					
The qu	estionn	aire as a whole	0.923					

The above Cronbach's alpha values indicate the study tool enjoys generally a high consistency factor which enables it to achieve the purposes of the study as mentioned in (Sekaran, 2003)

## 13. Descriptive analysis of the answers of study sample about the study variables

The statistical analysis of the results of the responses of the study sample will be reviewed for variables that are adopted, through the presentation of statistical indicators for their answers through arithmetic means and standard deviations for each study variables and relative importance.

## 13.1 First: collaborative knowledge

In order to describe the importance level of the collaborative knowledge in the libraries of the public universities, the researcher used the arithmetic averages standard deviations, one sample t-test to verify the significance of the item as shown in table (3)



Table (3): the arithmetic averages standard deviations and t-values and the importance level of the collaborative knowledge in the libraries of Iordanian public universities

in the i	ibraries of Jordanian public universities						
No.	Collaborative Knowledge	Arithmetic average	St. Dev.	Calculated t-value	Sig.	Order of importance	Importance level
1	We deal with the experience and skills of the staff in the library as an important part of our knowledge assets	3.77	1.04	11.076	0.000	2	High
2	We have sufficient capacity to generate information and knowledge either from internal or external sources	3.28	1.18	3.532	0.001	6	High
3	The library possesses adequate systems to share knowledge and learn from others' experiences	4.12	0.94	17.631	0.000	1	High
4	The knowledge in the library is exchanged and shared among all employees in the different administrative levels	3.68	1.20	8.445	0.000	4	High
5	The library is interested in sharing knowledge and disseminate it to other university libraries of common interest	3.72	1.24	8.615	0.000	3	High
6	The library uses information technology to facilitate communication between different levels of administration	3.64	1.23	7.762	0.000	5	medium
	rithmetic mean and standard deviation of orative knowledge	3.7	1.13				

The tabulated value of t at ( $\alpha \le 0.05$ ) equals 1.651

The value of t was calculated according to the assumed arithmetic average of the item which equals to 3

Table (3) refers to the answers of the sample study of phrases related to collaborative knowledge. The arithmetic averages for this variable lies between (3.28) to (4.12) with a mean value of (3.7) on Likert Quintet scale which indicates to the high level of collaborative knowledge. The item " The library possesses adequate systems to share knowledge and learn from others' experiences " came first with an arithmetic average of (4.12) which is higher than the general arithmetic mean of (3.7), with a standard deviation of (0.94), item " We have sufficient capacity to generate information and knowledge either from internal or external sources" was the sixth and the final in order with an arithmetic average (3.28) which is lower than the general arithmetic average of (3.7) with standard deviation of (1.18).

The table also shows the low dispersion in the responses of the study sample about collaborative knowledge variable with its items reflecting the convergence of views among the members of a sample study on the importance of collaborative knowledge variable. The table also indicates the convergence in values of arithmetic averages, where it is noted that through the significance levels there are no differences point of views among the members of the study sample about the phrases forming the variable of the collaborative knowledge where all the significance levels are less than (0.05) for all items. Generally the level of importance of collaborative knowledge in university libraries in Jordan under consideration from the viewpoint of the study sample was high.

## 13.2 Second: Organizational Memory

In order to describe the importance level of the Organizational Memory in the libraries of the public universities, the researcher used the arithmetic averages standard deviations, one sample t-test to verify the significance of the item as shown in table (4)



Table (4): the arithmetic averages standard deviations and t-values and the importance level of the Organizational Memory

in the libraries of Jordanian public universities

III tile I	ioraries of Jordanian public universities				•		
No.	Organizational Memory	Arithmetic average	St. Dev.	Calculated t-value	Sig.	Order of importance	Importance level
7	The library as modern systems for storing, documenting, categorizing, maintaining ideas in an easy and convenient form which is suitable for future usage	3.79	1.10	10.717	0.000	3	High
8	The systems used in the library enable us to record the best practices and minimize errors in executing businesses	3.70	1.20	8.751	0.000	4	High
9	Information and knowledge saved in the systems of the library are sufficient to perform the businesses efficiently and effectively	3.88	1.08	12.152	0.000	2	High
10	The library always maintains the information system and updates it knowledge	4.27	0.91	20.755	0.000	1	High
The arithmetic mean and standard deviation of Organizational Memory		3.91	1.07				

The tabulated value of t at ( $\alpha \le 0.05$ ) equals 1.651

The value of t was calculated according to the assumed arithmetic average of the item which equals to 3

Table (4) refers to the answers of the sample study of phrases related to Organizational Memory. The arithmetic averages for this variable lies between (3.70) to (4.27) with a mean value of (3.91) on Likert Quintet scale which indicates to the high level of Organizational Memory. The item "The library always maintains the information system and updates it knowledge "came first with an arithmetic average of (4.27) which is higher than the general arithmetic mean of (3.91), with a standard deviation of (0.91), item "The systems used in the library enable us to record the best practices and minimize errors in executing businesses "was ranked the last in order with an arithmetic average (3.70) which is lower than the general arithmetic average of (3.91) with standard deviation of (1.20).

The table also shows the low dispersion in the responses of the study sample about Organizational Memory variable with its items reflecting the convergence of views among the members of a sample study on the importance of Organizational Memory variable. The table also indicates the convergence in values of arithmetic averages, where it is noted that through the significance levels there are no differences point of views among the members of the study sample about the phrases forming the variable of the Organizational Memory where all the significance levels are less than (0.05) for all items. Generally the level of importance of Organizational Memory in university libraries in Jordan under consideration from the viewpoint of the study sample was high.

## 13.3 Third: the standards of the quality of the managerial decisions

In order to describe the level of achieving the quality of the managerial decisions in the libraries of the public universities, the researcher used the arithmetic averages standard deviations, one sample t-test to verify the significance of the item as shown in tables (5), (6), and (7).



Table (5): the arithmetic averages standard deviations and t-values and the importance level of achieving the rare standard in the libraries of Jordanian public universities

III tile	in the noralles of Jordanian public universities								
No.	Rare standard	Arithmetic average	St. Dev.	Calculated t-value	Sig.	Order of importance	Importance level		
11	The used decision system in the library contribute in expanding the horizons of modernization and updating in delivering exceptional services	3.64	1.19	8.040	0.000	2	Medium		
12	The used decision system in the library contribute in identifying the means of minimizing the costs of delivering products and services	3.82	1.03	11.932	0.000	1	High		

The tabulated value of t at ( $\alpha \le 0.05$ ) equals 1.651

The general arithmetic average and standard

deviation of innovation

The value of t was calculated according to the assumed arithmetic average of the item which equals to 3

3.73

1.11

Table (5) refers to the answers of the sample study of phrases related to rare standard. The arithmetic averages for this variable lies between (3.64) to (3.82) with a mean value of (3.73) on Likert Quintet scale which indicates to the high level of rare standard. The item " The used decision system in the library contribute in identifying the means of minimizing the costs of delivering products and services " came first with an arithmetic average of (3.82) which is higher than the general arithmetic mean of (3.91), with a standard deviation of (1.03), item " The used decision system in the library contribute in expanding the horizons of modernization and updating in delivering exceptional services " was ranked the last in order with an arithmetic average (3.64) which is lower than the general arithmetic average of (3.73) with standard deviation of (1.19). The table also shows the low dispersion in the responses of the study sample about the rare standard variable with its items reflecting the convergence of views among the members of a sample study on the importance of rare standard variable. The table also indicates the convergence in values of arithmetic averages, where it is noted that through the significance levels there are no differences point of views among the members of the study sample about the phrases forming the variable of the rare standard where all the significance levels are less than (0.05) for all items. Generally the level of importance of rare standard in university libraries in Jordan under consideration from the viewpoint of the study sample was high.



Table (6): the arithmetic averages standard deviations and t-values and the importance level of achieving the consequential standard in the libraries of Jordanian public universities

Standa	standard in the libraries of Jordanian public universities							
No.	Consequential standard	Arithmetic average	St. Dev.	Calculated t-value	Sig.	Order of importance	Importance level	
13	The used decision system in the library provides information in a quantity and quality that have predictive capacity helping in making decisions related to formulating and designing future plans	3.79	1.07	11.008	0.000	1	High	
14	The decision system provides standards and indicators that enable the administration of the library to predict and to explore deviations	3.71	1.14	9.264	0.000	2	High	
The general arithmetic average and standard deviation of productivity		3.75	1.1					

The tabulated value of t at ( $\alpha \le 0.05$ ) equals 1.651

The value of t was calculated according to the assumed arithmetic average of the item which equals to 3

Table (6) refers to the answers of the sample study of phrases related to consequential standard. The arithmetic averages for this variable lies between (3.71) to (3.79) with a mean value of (3.75) on Likert Quintet scale which indicates to the high level of consequential standard. The item " The used decision system in the library provides information in a quantity and quality that have predictive capacity helping in making decisions related to formulating and designing future plans " came first with an arithmetic average of (3.79) which is higher than the general arithmetic mean of (3.75), with a standard deviation of (1.07), item " The decision system provides standards and indicators that enable the administration of the library to predict and to explore deviations " was ranked the last in order with an arithmetic average (3.71) which is lower than the general arithmetic average of (3.75) with standard deviation of (1.14).

The table also shows the low dispersion in the responses of the study sample about the consequential standard variable with its items reflecting the convergence of views among the members of a sample study on the importance of consequential standard variable. The table also indicates the convergence in values of arithmetic averages, where it is noted that through the significance levels there are no differences point of views among the members of the study sample about the phrases forming the variable of the consequential standard where all the significance levels are less than (0.05) for all items. Generally the level of importance of consequential standard in university libraries in Jordan under consideration from the viewpoint of the study sample was high.



Table (7): the arithmetic averages standard deviations and t-values and the importance level of achieving the directive standard in the libraries of Jordanian public universities

standard in the northers of Jordanian public universities								
No.	Directive standard	Arithmetic average	St. Dev.	Calculated t-value	Sig.	Order of importance	Importance level	
15	The adopted decision system in the library contributes to description of the directive ways of the library toward focusing on diversification in its services	3.75	1.16	9.662	0.000	1	High	
16	The adopted decision system in the library provides basic information to describe the ways of planning of the human, financial and material resources	3.70	1.12	9.262	0.000	2	High	
The general arithmetic average and standard deviation of social responsibility		3.72	1.14					

The tabulated value of t at ( $\alpha \le 0.05$ ) equals 1.651

The value of t was calculated according to the assumed arithmetic average of the item which equals to 3

Table (7 refers to the answers of the sample study of phrases related to directive standard. The arithmetic averages for this variable lies between (3.70) to (3.75) with a mean value of (3.72) on Likert Quintet scale which indicates to the high level of directive standard. The item " The adopted decision system in the library contributes to description of the directive ways of the library toward focusing on diversification in its services " came first with an arithmetic average of (3.75) which is higher than the general arithmetic mean of (3.72), with a standard deviation of (1.16), item " The adopted decision system in the library provides basic information to describe the ways of planning of the human, financial and material resources " was ranked the last in order with an arithmetic average (3.70) which is lower than the general arithmetic average of (3.72) with standard deviation of (1.12).

The table also shows the low dispersion in the responses of the study sample about the directive standard variable with its items reflecting the convergence of views among the members of a sample study on the importance of directive standard variable. The table also indicates the convergence in values of arithmetic averages, where it is noted that through the significance levels there are no differences point of views among the members of the study sample about the phrases forming the variable of the directive standard where all the significance levels are less than (0.05) for all items. Generally the level of importance of directive standard in university libraries in Jordan under consideration from the viewpoint of the study sample was high.

## 14. The results of the study

The most important results based on the previous practical analysis were overviewed, and in the light of the results, the conclusions and recommendations come.

- The results have shown that the level of importance of the collaborative knowledge in the libraries of the Jordanian public universities under the study was high from the point of view of the individual of the sample.
- It has been shown that the level of importance of the organizational memory in the libraries of the Jordanian public universities under the study was high from the point of view of the individual of the sample
- The results have shown that the level of achieving the rare standard in the libraries of the Jordanian public universities under the study was high from the point of view of the individual of the sample.
- The results have shown that the level of achieving the consequential standard in the libraries of the Jordanian public universities under the study was high from the point of view of the individual of the sample.
- The results have shown that the level of achieving the directive standard in the libraries of the Jordanian public universities under the study was high from the point of view of the individual of the sample.
- The results have shown that there is a statistically significant relationship between collaborative knowledge and organizational memory in the libraries of the Jordanian public universities at significance level (0.05).



- The results have shown that the collaborative knowledge has an impact on achieving the quality of the managerial decisions in the libraries of the Jordanian public universities at significance level (0.05).
- The results have shown that the organizational memory has an impact on achieving the quality of the managerial decisions in the libraries of the Jordanian public universities at significance level (0.05).
- The results have shown that the collaborative knowledge and organizational memory have an impact on achieving the quality of the managerial decisions in the libraries of the Jordanian public universities at significance level (0.05).
- 15. Conclusion:
- Forming knowledge either by an individual or a team is considered very important and is reflected on the performance of the organizations and of course university library is one of these organizations that require making it part of its existence and its collective knowledge.
- Collaborative knowledge in university library is considered part of the process of supporting innovation and developing the explicit and implicit knowledge of the individuals through exchange and social nurturing.
- The organizational memory represents an information system based on the recording of knowledge for the purpose of making it useful for the workers, library and the society as a whole in the future.
- The organizational memory represents a wide knowledge process that flow in a general framework mutually active, its components are a mix of tangible and intangible things.
- The standards of the quality of the managerial decisions are considered a guide to make right decisions, as it represents a guide for the top management to identify the most suitable choice.
- The mangers and the heads of the departments in libraries of Jordanian public universities- the sample of the study-have managerial expertise that equip them to make substantial decisions related the nature of their work.
- Decision systems in libraries of Jordanian public universities help to provide information related to planning human, financial and material resources.

#### 16. The recommendations of the study

- 1. It is necessary for libraries of Jordanian public universities to provide the requirements knowledge sharing particularly those related to the training of personnel and teams since it has its positive impact on knowledge sharing which reflected on the efficiency of performance.
- 2. It is necessary for departments and decision-makers libraries of Jordanian public universities to identify impediments to the application of the active participation of knowledge and work to reduce them in order to achieve its goals and enhance competitive position.
- 3 It is necessary to implement the knowledge sharing in libraries of Jordanian public universities to achieve competitive advantage for the library.
- 4. It is necessary to understand different interpretations based on knowing what to reflect on concepts and methods of collaborative knowledge to enhance the potential of working in university libraries and thus achieve high performance levels.
- 5. It is necessary to provide methods and tools to support collaborative environment in university libraries which support the participation of individuals in their thoughts and observations.
- 6. It is necessary to provide tools and methods for the purpose of ensuring the knowledge warehouses which strengthens and consolidates the existing knowledge in university libraries and increases its capacity and increase the effectiveness of knowledge sharing process.
- 7. Pay attention to activating knowledge processes resulted from organizational memory in an interactive framework between the library personnel to enhance the capabilities and potential of the University Library.
- 8. Perform a study on sharing knowledge and cognitive processes and implications for performance in institutions of higher education.

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