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## Knowledge Sharing Behaviors at Information Science Department in the Faculty of Arts and Humanities /King Abdul Aziz University

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### Abstract

This study has focused in knowledge sharing behavior in the Information Science Department at King Abdul Aziz University in Jeddah. It aimed to investigate the Department knowledge sharing in the internal and external environments. This was to produce knowledge due to the criteria of "communicative competence", with using Benchmarking to compare to some good models in the world in future studies. Case study, content analysis and comparative methods were used. The questionnaire was distributed to the faculty members, lecturers, in the department in both men and women sections. This study has considered as one of the beneficial studies in knowledge sharing behavior in the field of Information Science in Saudi Arabia. Thus due to the lack of this kind of behavior and due to the disability of creating and generating knowledge based on competitive criteria among faculty members. Unfortunately, Information Science Department still lacking of producing textbooks for their students, which led to any department to be high accreted in the world market. This study also identified and analyzed major factors for knowledge-sharing among faculty members which considered very important tools for Benchmarking. The study also added a scientific lead by designing some models for further research to determine the suitability of this concept of participation knowledge in Arab environments as opposed to Western environments. Those models would help to find a mechanism to build and create knowledge, and to share among the faculty members to increase



their productivity and innovations. Those models also would show some practical activities among any organization society.

**Key words:** knowledge management, knowledge sharing, information science, Information seeking, competitive criteria, faculty members, Saudi Arabia

## 1-Introduction

The current study focuses on the behavior of knowledge sharing with the Department of Information Science (ISD), Faculty of Arts and Humanities, at King Abdul Aziz University (KAU) in Jeddah. This to identify the current status of the ISD behaviors to determine its ability to produce and generate knowledge based on competitive criteria in order to adapt with global developments in the field of Information Science. According to Dulaymi, who indicated the growing role of the virtual world, which became surrounded and controls the profession of director or information manager from all different kind of aspects. Furthermore, the virtual world reduces the feeling of passive society and shows new character as a consultant for knowledge and engineer manager of information. This in turn led to a radical change of role on the track played by the industrial revolution in the world before that time (Dulaymi, 2009, pp. 121-122). Virtual Reality (VR) continues flooding on the rise of giving a sense of being instantaneous, which increases its products in the future via the Internet in conjunction with the information using the finite products at a young age and digital communication technologies. The emergence of the concept of knowledge management which appeared for the first time in 1997 brought a significant change in the circulation of information and knowledge of ways in terms of storage, distribution and retrieval. This development effected lots of information institutions in the world on economic growth (Abdul Alhamid, 2007.p3).

In 1989 in Europe, the concept of knowledge management was more advanced than total quality management, as worked to integrate the technological side with the human side for optimal

exploitation of: intellectual capital, enterprise culture, and organization culture at the competitive advantages of the national level. This has emerged the concept in the mid-nineties, when signs of knowledge management emerged in both the European and Japanese companies. The global network of knowledge management, which was founded in 1994 in the International knowledge management network-IKMN and published the results of European companies in 1995 as the European Communities financed the project knowledge management Esprit program (Abdul Alhamid, 2007, PP, 3.5). As a result, there is an increasing growth in creativity through business knowledge and knowledge workers.

More recently, studies have abounded in the developing world trying to catch up with developed countries in outcome of the advanced technologies in the field of education of information science. Specifically, at the graduate level, this turned in one of the pathways to knowledge management in the United States, Britain and other developed countries. It is known that the first graduate programs began in Information Science at King Abdul-Aziz University in 1978. That Department is also considered the first scientific department which has designed a knowledge management program for post doctoral since the year 2011.

Therefore, the current study will work to assess the position of the ISD apparently from its position on the web page of the university. And also to know and to understand the opinions of ISD faculty members -from the survey study- to how knowledge reflection can be a productive tool to the program activities?

The problem of this study will be formulated from some previous studies that formed the background of the study.

In 2012 Abul-Ela presented a study aimed to discover the extent of the practice of knowledge management (regulation, generation, sharing, and application) in the College of Education at Taif University. She noted that the four operations, mentioned above, include positive and negative practices. The study recommended: providing the financial support necessary to



support and activate the knowledge processes, and linking the college with local and international scientific research centers to share knowledge (Abu Ela, 2012, PP 106-107).

In the same year, Mahmoud stressed a concept that benefits knowledge and technical management obtained by the application of the organization. He specified the role of knowledge and technical management in achieving organizational development. Moreover, he noted that there is a correlation between knowledge and technical management at the organizational development relationship, and it is still not applied to the traditional framework properly (Mahmoud, 2012, P 398).

From the above review, the study will emerge from the following:

Knowledge is what caused from the information that impact the behavior and performance and then one can plan for environmental knowledge.

The outline of the technology used in converting tacit knowledge to other tacit knowledge, and then put to the explicit and declared knowledge, helps to share experiences.

Interfering with the private sector to work labor market by universities raises the level of the formation of a knowledge society.

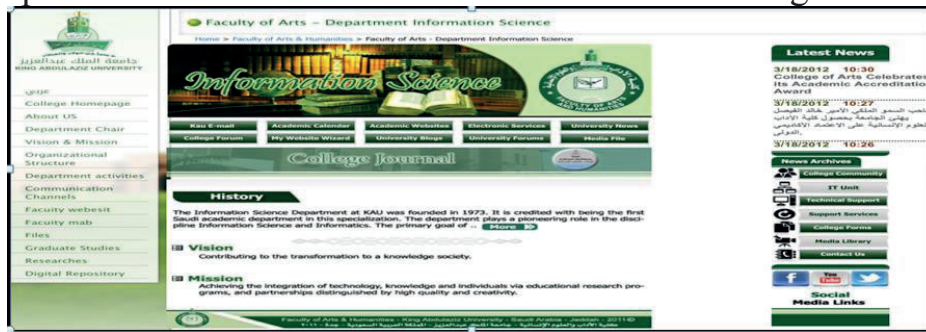
Knowing the degree of the practice of knowledge management (generation, sharing, and application) creates a competitive environment in the field of study.

There is a correlation between knowledge and technical management and organizational development relationship.

This helps researchers to get practical tool senses to generate knowledge in the department.

Another way to form the problem of the study is to use direct observation on the electronic section site as lack of information in terms of availability which lacks the bases to generate and share knowledge for their members. It became necessary to assess the current situation and the search for a verification mechanism to build and to create knowledge and management, by sharing among the members. This mechanism is flexible and

easy to use; to operate the concept of knowledge management and post permanently and continuously knowing that anyone can access the website section through the following link: <http://libraries.kau.edu.sa/> showed the location as in figure 1.



(Figure 1) The website of Information Science Department at (KAU)

The current study will concentrate on the behavior of knowledge sharing within the ISD, in the Faculty of Arts and Humanities, at King Abdul Aziz University (KAU) in Jeddah, in order to identify the current status of its seeking behaviors of getting information involved in the internal and external knowledge environments of the department. Moreover, the study aims to determine the section's ability to produce and generate knowledge based on competitive criteria by comparing knowledge sharing in internal and external level and using the measurement for the better ideals.

The problem of the study can be determined as follows:

-To what extent the faculty members in the Information Science Department at King Abdul Aziz University in Jeddah use knowledge sharing behaviors in internal and external environments, and to what extent do they have the ability to produce and generate knowledge based on knowledge sharing behaviors competitive criteria?



## 2- Materials and Methods

### Research Goals

1. Identify the current status of the Department of Information Science for knowledge sharing behaviors in the internal environment.
2. Identify the current status of the Department of Information Science behaviors knowledge sharing in the external environment.
3. Select the participant's ability to produce and generate knowledge based on competitive criteria.
4. Compare the knowledge and knowledge generated from internal and external level, using the measurement for the better ideals.
5. Design models of knowledge sharing behaviors in internal and external environments of information science department in the faculty of Arts and humanities at King Abdul Aziz University in Jeddah.

### 2.1 Questions Of The Study

1. To what extent do the faculty members in the Information Science Department use knowledge sharing behaviors in the internal environment?
2. To what extent do the faculty members in the Information Science Department use knowledge sharing behaviors in the external environment?
3. To what extent do the faculty members in the two sections of the department have the ability to produce and generate knowledge based on knowledge sharing behaviors competitive criteria?
- 4- What are the differences between using knowledge sharing behaviors among faculty members?
5. How to evaluate the site of the IS department on the KAU website?

## 2.2 Hypothesis

There is a significant relationship between faculty members' ability to produce and generate knowledge and the degree of using knowledge sharing behaviors in internal and external environments of the Information Science Department at King Abdul Aziz University in Jeddah.

## 2.3 The Importance Of Study

This study is considered as one of the most beneficial study in knowledge sharing behavior in the field of Information Science in Saudi Arabia. Due to the lack of that kind of behavior and due to the disability of creating and generating knowledge based on competitive criteria among faculty members this study is important. This study also identifies and analyzes major factors for knowledge-sharing among faculty members in KAU in order to examine how those factors influence department wide knowledge-sharing. Studying the extent of using knowledge sharing will influence public attitude towards this kind of organizational knowledge. The study also added a scientific lead by designing some models for further research to determine the suitability of this concept of participation or knowledge in different Arab environments compared to western environments. Those models will help to find a mechanism to build and to create knowledge, and to share among the faculty members of the Department of Information Science. In addition, this will, hopefully, positively affect the quality of knowledge sharing of any other society. According to the knowledge of the researchers, there were some studies in the field of IS much related to this study such as: Seonghee Kima and Boryung Jub (2008), Sulaiman and Burke (2009), Arabshahi et al. (2013), Islam (2013), Chalak (2014) and Ghasemzadeh (2017) have the same point of view when they defined knowledge-sharing, but none of them took place in Saudi Arabia. Also the current study integrates information seeking behavior with knowledge management concepts. Furthermore, the study is trying to build and conceptualize structures and models of knowledge sharing



behaviors. These models make it so easy to practice and make a clear relationship with society in internal and external environments for teaching and training. As this study is trying to bridge the gap between theory and practice, it is also trying to bridge the gap in application of modern techniques in keeping pace with the developed nations especially when applying KM components as factors influencing knowledge sharing which is a basic tool for Benchmarking (Schauer, Sen and Vasconcel, 2016, pp. 770 -771).

## 2.4 Methodology

This study has used the qualitative method to identify the factors influencing knowledge sharing behavior. Furthermore, it has considered important detailed information collected from literature.

The quantitative method has been used to investigate the impact of knowledge sharing behaviors on the ability of faculty members to produce, generate and share knowledge based on competitive criteria in internal and external environments.

The study will be using the survey method and case study to collect data from the population of the study to get the important indicators and answers to the questions of the study. Questionnaires were distributed via e-mail and waited on for five months to have repetitions.

Content analysis method will be applied to evaluate the site of the department on the university website. This analysis will evaluate the website; this evaluation will start first from the conclusion of the survey and data analysis questionnaires. This evaluation will be based on Knowledge Management Processes check lists which are divided into three factors: Knowledge Diagnosis (KD)-Knowledge Generating (KG)-Knowledge Sharing (KS).

Comparative approach when comparing the site to a different location with a better level or representation. The Summary of knowledge management process from the questionnaire will show some differences in the three processes {Knowledge Diagnosis (KD)-Knowledge Generating (KG)-Knowledge



Sharing (KS)} between websites evaluation and organizational culture. The same evaluation is repeated from researchers' point of views to find similar results.

A **statistical method** was applied; SPSS was used to analyze data of the study. A psychometric response scale primarily used in questionnaires to obtain participant' preferences, or degree of use "Always-Sometimes-Rarely-Not Used" with a statement, or set of statements. "Likert scales" are anon-comparative scaling technique and are un-dimensional in nature. Respondents are asked to indicate their level of agreement with a given statements by way of an ordinal scale. Mode, median and mean were used to clarify these answers. The Friedman test is a non- parametric statistical test. It is used to detect differences in treatments across multiple test attempts.

## 2.5 Study Tools

- Observation used on the web site deficiencies.
- Questionnaire to collect data from the study population.
- A review of previous studies to reach a theoretical framework for the latest previous studies to the current ones.
- Checklist to use for evaluation and comparative study.

**2.6 The population of the Study:** The study population of the teaching staff and lecturers in the Male Section is made up of seventeen, and the Female Section is made up of nineteen. This means that the overall society for the study amounted to 36 members (Table 1), while the sample is 24 which makes 67% of the total population.

(Table 1) The population of the study:

The Rank	Male Section	Female Section
Professor	6	4
Co-professor	4	2
Assistant Professor	5	6
Lecturer	2	7
Total	17	19



### 2.8.1 The limits of the study

1. Subject limitation: The theme of the study under the following key words: knowledge management, knowledge sharing, information seeking, Saudi Arabia, information Science schools.

2. Time limitation: the study from 2016 to 2018

3. Geographical limitation: the study considered of the Department of Information Science and its location on the page, at King Abdul Aziz University.

#### 4-Research limitations/implications

Since the survey used very small sample here which were limited to some ISD in Saudi universities, the results of this study may prove not to be generalizable and should be confirmed using larger samples and/or longitudinal studies.

### 2.9 Practical implications

The findings provide useful insights into how faculty members and stakeholders should encourage KS attitudes, intentions, and behaviors to foster innovative work behaviors of faculty members. Also the factors which are considered important in this study well be a useful guide lines for evaluation and performance measurement. Moreover, the frame work of the study will be a good tool to theoretical reviews for the graduate students in Knowledge management programme.

### 2.10 Terminology of study

**INFORMATION BEHAVIORS:** It is all that covers the behavior of searching information in addition to all the behaviors intentional and unintentional.(Case, 2012, p5). And "it is any linked sources and channels of information gained by human behavior that includes positive and negative activities in the research, that includes: networking and face-to-face, and

communicate with others and, the negative reception of information, such as watching TV without any intention to get the information given" (Marghalani and Dulaymi, 2016, p p76-77).

**Information seeking behavior** refers to the way people search for and utilize information. In 2000, Wilson described information behavior as the totality of human behavior in relation to sources and channels of information, including both active and passive information-seeking, and information use. He described information seeking behavior as purposive seeking of information as a consequence of a need to satisfy some goal. Information seeking behavior is the micro-level of behavior employed by the searcher in interacting with information systems of all kinds, be it between the seeker and the system, or the pure method of creating and following up on a search.

Thomas Wilson proposed that information behavior covers all aspects of human information behavior, whether active or passive. Information seeking behavior is the act of actively seeking information in order to answer a specific query. Information Searching behavior is the behavior which stems from the searcher interacting with the system in question. This system could be a technological one, such as the searcher interacting with a search engine, or a manual one, such as the searcher selecting which book is most pertinent to their query. Information Use behavior pertains to the searcher adopting the knowledge they sought 1 Fairer (1990), Wilson, (2000) pp49–55.i

Case (2008, p. 8) defines information seeking as “a conscious effort to acquire information in response to a need or gap in your knowledge”. Wilson (1999, p 9) states that information-seeking



behavior is a “consequence of a need perceived by an information user, who, in order to satisfy that need, makes demands upon formal or informal information sources or services, which result in success or failure to find relevant information”. Further, Wilson (2000 explains that: "Information Seeking Behavior is the purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems (such as a newspaper or a library), or with computer-based systems (such as the World Wide Web) (p. 49)." (Fourie, 2006, pp20-37) considers information seeking as “ a complex, dynamic, social human behavior that needs as rich a picture as possible to truly understand the phenomenon – and even then there will be many unanswered questions” (Case, 2008, p. 20).ii

**KNOWLEDGE SHARING:** It is "the exchange of knowledge and experience between individuals; which cause the shift from individual work to teamwork" (Bamofleh, 2016, p 47). Knowledge sharing is an activity through which knowledge (i.e. information, skills, or expertise) is exchanged among people, friends, or members of a family, a community (e.g. Wikipedia) or an organization. Organizations have recognized that knowledge constitutes a valuable intangible asset for creating and sustaining competitive advantages. Knowledge sharing activities are generally supported by knowledge management systems. However, technology constitutes only one of the many factors that affect the sharing of knowledge in organizations, such as organizational culture, trust, and incentives. The sharing of knowledge constitutes a major challenge in the field of knowledge management because some employees tend to resist sharing their knowledge with the rest of the organization. One prominent obstacle is the notion that knowledge is property and



ownership thus very important. In order to counteract this, individuals must be reassured that they will receive some type of incentive for what they create. However, Dalkir (2005) identified the risk in knowledge sharing is that individuals are most commonly rewarded for what they know, not what they share. If knowledge is not shared, negative consequences such as isolation and resistance to ideas occur. Shared knowledge offers different viewpoints and possible solutions to problems. To promote knowledge sharing and remove knowledge sharing obstacles, the organizational culture should encourage discovery and innovation. This will result in the creation of organizational culture Miller (1996), Cabrera (2002), Ciborra (1998), Bock (2002) and Dalkir (2005).iii

## 2.11 Literature Review

Studies were reviewed in the literature of Arab and foreign countries from the latest to the present ones as follows:

- Historical context review:

In 1993, Consultancy explained that the progressive change that has happened since that period in the field of education and training, that may have had an impact on the design and development of information delivery service. The role of higher education SLIS (School and department of information and library studies) had met the challenges of change in education; to meet the changing needs of the profession. In this sense, educational programs impacted the thinking of training in the private sector and institutions of the information to obtain the required knowledge and skills. Furthermore, the professional organizations became regulated in training courses and studying materials-oriented managers- in the previous two categories to compete with educational programs in providing them necessary issues to perform competitive work. It began then in both the



University of Sheffield and University of Loughborough where they adopted that program (Consultancy, 1993). Moon and House in 1994 has made it clear that the Information Science has faced a difficult period in the face of the profession and learning in 1970. This situation also continued until 1980 with the absence of beneficiaries' service. That led to the thinking about developing methods of education and training in ways to improve the service performance of the beneficiaries (Moon and House, 1994). In (2004) Rifai explained that the need to consider knowledge management as an independent field that must address the scientific methodology must become a great value and one of the strategic assets. The knowledge explosion that accompanied the movement of globalization and the speed that affected technological, economic, social, political and cultural aspects around the world which decreased the number of workers in companies and increased the number of organizations. Moreover, geographical breadth has been accompanied with the globalization of markets. This made the emergence of new network organizational structures, that provide good services of cognitive density, accompanied the revolution in information technology and communications. Rifai explained the worksheet of knowledge management, as well as the review of some models for the life cycle of distribution phases of knowledge management in the illustrative table's administration. Also those models included the relationship between data, information, knowledge and technology (Rifai, 2004, p. 23-30).

In the year (2004) also Gupta explained that one of the main factors that distinguish smart business enterprise in the twenty first century was to focus on the speed, and availability of knowledge and information of high-tech unlike companies in the past. The globalization focus for companies today require the

ability to capture, manage and use of knowledge and information in order to improve efficiency and provide better services to customers, and management of the competition. Knowledge management was also not always easy to identify because they included a range of administrative and technological concepts and tasks, and many of the practices that were under the concepts of Knowledge Management (Gupta et al., 2004, p. 1-28). In 2007, Abdel Hamid explained the difference between the concepts of knowledge management and information management. The latter being one that uses the computers in data reduction only in explicit information, in order to retrieve it while including the concept of knowledge management. knowledge explicit and implicit in the institution as a whole are based on individuals and not on technology that represents one of the four elements (Content- Technology, operations, individuals and the culture of the organization) as opposed to the concept of information management (Abdel Hamid, 2007, p. 7).

- Knowledge sharing behavior in context:

Seonghee Kima, Boryung Jub (2008) defined knowledge-sharing as a process of being aware of knowledge needs and making knowledge available to others by constructing and providing technical and systematic infrastructure. Numerous studies have addressed issues related to knowledge-sharing at various levels within organizations and between types of organizations. This study identifies and analyzes major factors for knowledge-sharing among faculty members in a higher educational institution in order to examine how those factors influence campus wide knowledge-sharing. It also investigates the way in which those factors are interrelated. Data were collected through a survey of full-time university faculty members at one private, four-year research university in South



Korea. Results showed that perception was the most influential factor and reward systems were the second-most influential factor for faculty knowledge-sharing. Respondents did not consider other factors such as Trust, Openness in Communication, Collaboration, and Communication Channels based on IT Infrastructure to be main factors. These factors did not have a statistically significant effect on faculty knowledge-sharing (SeongheeKima, BoryungJub, 2008, pp282-290).

In (2009) Koh & Maguire addressed that it was impossible to monitor some overlapping roles associated with knowledge, as these roles can be classified according to the degree of use, adaptation, distribution and generation. The definition of "*knowledge management*" became a critical regulatory issue of adaptation, survival, efficiency, and standing against environmental intermittent change. That definition helped organizational processes seek a harmonious combination of data and information work that have the ability to IT, creative and innovative of human processing, due to determining the importance of information to the company and the organization. That to own classified information to know - implicit and explicit- and to clarify the benefits of knowledge management of the company as follows:

- Innovation by promoting the free flow of ideas
- Improvement of customer service by reducing response time
- Boosting revenues through access products and services to market faster
- Enhancement of employee retention by recognizing the value of employee cognition and reward them for its rates.
- Streamlining operations and reducing costs by eliminating redundant or unnecessary operations. Some models have been clarified knowledge management and discussed the challenges they faced (Koh & Maguire, 2009, pp. 285-294).



Sulaiman and Burke (2009) made a conceptualization study that provides a new understanding of the relationship between unemployed graduates and the human capital concept. The cases adopted web documentation for the research technique, and an interpretive approach was used as the research paradigm. Two online recruitment agency sites were analyzed through qualitative analysis. The connections showed how knowledge sharing can be used as a medium to help unemployed graduates to get jobs through online recruitment agencies. High quality candidates must have good soft skills, problem-solving skills and employable value added skills to get the best jobs (Sulaiman and Burke, 2009, 321-325).

In (2010) there were many talks about the knowledge and community knowledge-based economy, by virtue of the increasing importance of knowledge as the main source of wealth for modern societies. And also began to talk about the development of Education systems mainly to cope with the economic and social transformation of the transition to a knowledge society. Knowledge economy, based on a new more profound understanding of the role of knowledge and human capital in the development of the economy and the progress of society, which is based on the mastery of knowledge and to contribute to create its various branches. Qualification was more than any other to progress and enter the world of globalization effectively at all levels - economic, scientific, cultural, and social. The knowledge economy was based on the production of this knowledge and use of the achievements, or rather consumptions in the economic sense. Significant change in industrialized society's structure has occurred in the international division of labor. Specializations were made in each of the production, distribution of information, and resolution of financial capital in the leadership of economic activity. This was directly related to the movement of goods services and factors of production, which



dominate the commodities and resource markets. The size of the international monetary exchange increases today ten times more than that of the real economy (Editorial Board of Education magazine, 2010, p. 71).

In 2012, Abu Ela found that the four operations include positive and negative practices, and descending order of the relative importance of knowledge management processes as follows: regulation (0.67), generation (0.67), sharing (0.63), and the application is (0.56), the study recommended: providing the financial support necessary to support and activate the knowledge processes, linking the college with local and international scientific research centers to share knowledge, and conduct further studies (Abu Ela, 2012, p. 106-107). In 2012 also Mahmoud found a correlation between knowledge management and its technology and organizational development relationship. Among findings, that the concept of knowledge management and its technology, especially modern literature it still confined to the traditional framework, and did not take the strategic applied appropriately. The concept of organizational development suffers from aspects of concepts changing, as the researcher demonstrated a relationship between the moral impact of knowledge management and its technology and organizational development (Mahmoud, 2012, p. 398-426). In the same year, Dude & Ngulube focused on knowledge sharing in multi-cultural organizations environments, and was affected by the various trends that bring the power of humanity, which produces behaviors eager for knowledge that lead to different results. That study aimed to identify the extent of knowledge flow in the Department of Information Science at the University of South Africa. It also aimed to investigate the public perception of how to share knowledge between cultural generations and different

levels in the section. The method used was qualitative and observation of the activities that they practice to learn their attitudes and behavior and opinions of each and every one separately. Data through personal interviews analyzed the content of what came in the compilation. Results showed that there are several factors that affect the knowledge sharing. Those limitations based on the number of cultural reasons such as: the absence of knowledge sharing policy, and the lack of confidence that resulted from the lack of laws of special collaboration between the various levels in the department, and also to the lack of the use of ICT Information Science technology among individuals (Dude & Ngulube, 2012, pp. 68-77).

Anitha et al. (2012) reported that researches and practices in the field of knowledge management (KM) have shown that information technology alone cannot guarantee the exchange of knowledge among employees, while the other previous studies have linked incentive to shared knowledge factors. The researchers took another step to make that comprehensive study experimentally and theoretically, where to develop a comprehensive model, primarily based on the analysis of planned behavior that has a theory advance with three important groups namely: psychological, organizational and a technological group, assuming impact on the behavior of the sharing of knowledge. The results have exceeded predictability through previous studies that have been made. Important results have also shown that the behavior of knowledge sharing has had a strong positive impact in helping others, and has also, a strong negative impact on the loss of perception of the power of knowledge (Anitha, 2012, pp. 1097-1098).



In the same year, Zhang Xi highlighted Knowledge Sharing Visibility (KSV) as a critical environmental factor that can reduce the social confusion in knowledge sharing (KS), and this was especially true in the sharing of knowledge-based information and communication technology in educational institutions. This action made it necessary to better understanding in how technological designs of knowledge management systems (KMS) enable the high level of supporting process to highlight the sharing of knowledge. The results were encouraging statistical application, tracking, and dissemination of knowledge and functions stored to monitor the process of knowledge sharing. That action was incorporated into knowledge with communication tools maps to support the participation of tacit knowledge proposal. The results also indicated that knowledge management techniques were better able to improve the visibility of knowledge sharing in a large area of routine tasks. Staff with a low level may become more positive on the acceptance of the means of communication for the exchange and sharing of knowledge. The staff will extend to the use of Web 2.0 technologies (such as blogs) in knowledge management systems which is considered more important (Zhang Xi, 2012, PP. 1117 - 1118).

Arabshahi et al. (2013) studied how the educational and cultural environments play important roles in the direction towards the effective management of knowledge and space provision for the sharing of knowledge. They studied and examined the impact of organizational intelligence on faculty members' knowledge sharing behaviors. Data collection for qualitative research includes interviews with experts and quantitative research is performed using a questionnaire. The research results showed that there was a significant relationship between organizational

intelligence and faculty members' knowledge sharing behaviors. Among these dimensions, knowledge application influenced other dimensions. On the other hand, common outcome had a significant relationship with the behavioral dimension and special professional activities (Arabshahi et al., 2013, pp 2815-2822).

Islam (2013) study focus to measure knowledge sharing behavior of Information Science and Library Management (ISLM) faculties in Bangladesh. Determining factors that may influence knowledge sharing behavior constitutes an important area of research. A survey questionnaire was developed and used to collect data on faculties' demographic and academic information, perception, attitude, intention and intrinsic motivation to share knowledge. Results showed that no significant difference was found between knowledge sharing behavior of LIS Library and information Science educators with different Major Research Questions (MRQs). The researchers found a significant relationship between attitude of educators toward knowledge sharing and their intention to share knowledge. It is believed that the findings will assist knowledge managers charged with the design of flexible knowledge sharing system. An effort has been made to assess faculties' perception, attitude, intention and intrinsic motivation to share knowledge of ISLM faculties in Bangladesh (Islam, 2013, pp221-234).

In 2014, a study of Belo and Okional aimed to test trends and ideas and motivations in the behavior of knowledge sharing between faculty members in Nigeria University. It also compared between government and private sectors, as well as to identify the factors affecting the participation of knowledge. It used the survey method and questionnaire to collect data. The inevitable result of the increasing desire by academics to share their knowledge, and also there was a statistically significant relationship between each of the trends and motivations among



the participating of knowledge (Bello & Oyekunle, 2014, pp. 123-124).

Chalak (2014) showed an investigation of knowledge sharing among the faculty members of the Iranian Library and Information Science Departments. Survey method was employed for gathering required data. The findings from the research on the faculty members' awareness of the knowledge sharing indicate that most of them showed a high degree of awareness of knowledge sharing. Regarding the factors prohibiting the willingness of the faculty members to share knowledge, the findings of the research offer the absence of an appropriate knowledge sharing culture as the major involved factor (Chalak, 2014, pp 1-33).

In 2015, Rabie showed the linking of historians' development of human society in three basic stages, which evolved from a farming community towards the industrial society from 1800 to 1957, then to the information and knowledge society from 1957 to the present day. There was a new and the exact knowledge of the balance of power in the global system during the twenty first century, which meant that the power and authority have become linked to produce knowledge innovatively. It became the capital of human profitability to the value of benchmarking for the success and progress in all fields. It has several national attempts to develop the index for the development of knowledge, especially in Malaysia, or internationally such as knowledge index in the Department of Economic and Social Affairs at the United Nations. The adoption of a robust and reliable indicator does not make it easy to adjust the complexity of the content of knowledge at the end. The study recommended a number of actions including: raising the degree of coordination of national activities for scientific research, technical development and

innovation in the public and private sectors, improvement of the quality of scientific research, technical development, and employment of their output in the productive and service sectors. In addition, it recommended linking research institutions production and services that supported innovation on them (Rabie, 2015, p 7.27).

In 2015 also, Aljabli presented a doctoral thesis that aimed to identify the knowledge management applications in two organizations, and learning about the level of creativity in them. It detected whether there was a statistical significant relationship between the level of application in knowledge management and creativity of both organizations. It also aimed to identify a significant view about the differences of personal and functional variables. The population consisted of two groups of officers working at the Director General of Civil Defense in Riyadh from the rank of captain until the rank of colonel, and staff at the management of the fire company Saudi ARAMCO which obtained a knowledge transfer program. The researcher used the descriptive and comparative methods. Questionnaire was the tool of data collection. Also he chose an appropriate sample of community-based study. The most important findings were stated that members of both organizations agreed to a fair degree of knowledge management applications. A statistically significant difference in variables were found between the views of workers at the Director of General civil defense in Saudi ARAMCO, and to identify ways that increase the role of knowledge management in promoting creativity in the two organizations. The most important recommendations that will urged the leaders of the General Directorate of civil defense to adopt innovative ideas to support Saudi ARAMCO. The transfer of knowledge on all departments of the program and sections of the company will



adjust the organizational structure to be flexible in transferring knowledge among the staff of the General Directorate of civil defense and Saudi ARAMCO (Aljabli, 2015, p.1).

Mahjoub in (2015) article about knowledge workers, knowledge engineers, as illustrated by which those who are knowledge workers? Are they managers or knowledge engineers having the knowledge? Questions jump to mind when we translate the term, which began to emerge in foreign intellectual production of knowledge workers, and whether the Arab intellectual production can differentiate between all of the knowledge workers and knowledge managers and engineers who have knowledge? The literature review has differed to the characterization of knowledge workers meaning. Some believe that the meaning of this label is based on the specialists of libraries and information specialists whom their jobs are based on the collection and storage, organization and retrieval of information, which is the largest contributor in the cognitive training to the beneficiaries of the information. Others believe that knowledge workers are the producers of information and who use their minds to turn their ideas into products and services for knowledge. They have information and want to broadcast and disseminated through technological means such software and networking. Some others believe that knowledge workers are the architects of networks and software, which already contribute to facilitate information handling and ease of communication that affect the exchange of knowledge. Understanding of the workers who count on them producing modern technological means to facilitate knowledge-sharing processes among the knowledge workers as the beneficiaries of the information broadcast by the information product which are collected, organized, and retrieved by information Specialist to hand them to networking and software



engineer. The knowledge worker who works to take advantage of them by changing their status of knowledge, trained to keep pace with the information revolution, and to deal with the information and knowledge societies for all these differences (Mahjoob, 2015, p. 83-94). In (2016) both McIver and Wang aimed to develop a reliable and valid scale to measure implicitly in the work of knowledge. To do so, they build on the framework of knowledge practices, which refers to different types of work styles and different characteristics of tacit knowledge. This allowed answering two important questions:

- (1) What are the basic characteristics of the practices of knowledge that are important for the management of knowledge resources of the company efficacy?
- (2) How to measure those characteristics?

Answers help to build understanding of the theoretical and empirical knowledge based practices. A survey method was used through questionnaire, followed by different methodologies to validate the user scale. Furthermore, a new measure of tacit knowledge was developed. This was to enable learning the concept of participation in the workplace, so as to allow for the business units that are assessed on the basis of the implicit participation in different types of jobs, and to measure the different types of knowledge in organizations. The academics can use this study as a model to explore the fundamental knowledge across different contexts and focus on the various properties within the workplace. The study provides a clearer understanding and a more detailed knowledge of the organizations that could be used as evidence referring to the measurement and evaluation of the knowledge requirements. It also motivates people to



understand the work of knowledge from a cooperative perspective (McIver and Wan, 2016, pp. 637-638).

In the same year, Tangaraja aimed to distinguish clearly between knowledge sharing (KS) and knowledge transfer (KT) and the interdependence between them to reduce the ambiguities and confusion existing in the literature of knowledge management (KM). A review of studies has been used extensively to analyze the relevant literature for both knowledge sharing and transfer of knowledge to clearly identify differences and interdependence between them. The study concluded that the sharing of knowledge is a subset of the knowledge transfer using the privatization strategy, while the transfer of knowledge as a whole is a broader concept, if compared with the sharing of knowledge. However, the sharing of knowledge is not one of direct operations included in the transfer of knowledge. The processes involved in the participation and knowledge transfer varies according to the specific strategy. Results of this study reviewed the relevant specific materials of previous attempts; this article has shown a correlation between knowledge sharing KS and knowledge transfer KT, as well as differences based on two points of these efforts which are new in the literature of knowledge management (Tangaraja, 2016, pp. 653-655).

In 2016 also, both Chen and Liang considered that knowledge is essential and decisive in an organization to get a competitive advantage. The study aimed to determine the possibility of applying the principle of diversity and stability of knowledge management in the work environment. A questionnaire was used as a tool of evaluation. The results showed that the highest capabilities of information technology should be in higher levels of knowledge. The strength and diversity of knowledge in the company can improve the company's performance, and lessen the

contrast differences. This study provides a new perspective which can be applied to the environmental concept of the difference in the value of knowledge in organizations; it is working to expand the understanding of the role of information technology and knowledge in organizational performance (Chen and Liang, 2016, pp. 671-673).

In another study in 2016, both Serenko and Bontis explored the effect of the means of exchange of knowledge among the staff negotiations. It was based on the theory of influence of social exchange which has been the development of a theoretical model. The survey method was used and questionnaire was distributed to 691 staff members from 15 unions in North America. The results showed the exchange of knowledge between employees and shareholders in those banks. Sharing a single piece of knowledge of the most important research management issues is indicated by the fact that the most downloaded topic is the theme topic of knowledge sharing and participation, according to Knowledge Management published magazine. In addition, knowledge sharing is the growing interest within the academic community and the most important issues in both private and public institutions. It has a positive impact on organizational competitiveness, innovation and economic performance capability. It is the main goal of researchers: to understand the cognitive factors" contextual and incentive" to facilitate organizational knowledge flows of particular concerns that affect social relationships in various behaviors of the employee, including the sharing of knowledge. Exchange relationships appeared when individuals interacted with each other in group settings. As people share various resources, including goods, services and knowledge, to make the development of personal



preferences occur during the exchange process (Serenko and Bontis, 2016, pp. 687-688).

In the same year, a study of Schauer and others has involved the frame of participants' relations by studying the key influencing individual concepts to share knowledge through the enterprise system. A qualitative data study which has collected data from 24 people interviewed in four different sections in both: (1) China and the Netherlands, (2) Britain and the United States for information technology services provided by the organization. The study found four influential keys working on the formation of knowledge sharing from the perspective of an individual: the trends, special features of knowledge, and relationships among the participants with knowledge, and institutions that operate as a single unit to share knowledge. All of those keys led to draw a practical framework for the researcher. Since each one is different in nature, and each one can be applied in the framework of the inter-relationships between them. When Knowledge Sharing in the organization is developed or reestablished (Schauer, Sen and Vasconcel, 2016, pp. 770 -771).

A study by Shih and Tsai (2016), which aimed to explore the impact of knowledge management capabilities on the effectiveness of school functions and technical education in Taiwan. It has been using the survey method for a sample of 439 unexamined, resulted in the study of the presence of two important areas. The first of the potential assistance, and the second for the potential treatment. The first sector includes the environment and society and information technology, and the second comprises the supply, storage, sharing and applications. In the case of relationships within these sectors no structural model where operating capabilities to help potential efficiency and effectiveness of the management treatment. The potential

help them to predict effectively for the needs of graduate studies required institutions, which works on the efficiency of the administrative teaching business and outputs of research (Shih and Tsai 2016, pp. 1373.1374).

The study of Bashir et al. in 2016 focused on the method of obtaining benefit. It found that the cost impact on the quantity and quality of the volunteers in the Knowledge Network in the economic adjustment to the sources. Moreover, the study drew a conceptual long model for how to reach benefit and cost knowledge sharing, which has been designed on the basis of a review of previous studies. These latter studies had worked on the impact and cost benefit receipt, which supports both quantitative and qualitative criteria for the sharing of knowledge. Then it built on the basis of the results of a survey of 283 unexamined in business institutions (Bashir et al., 2016 pp 1247.1248).

Ghasemzadeh (2017) survey method employed for gathering required data among the faculty members of the Iranian in Library and Information Science Departments. Questionnaires were used and the obtained data were analyzed using the SPSS statistical software program. The findings indicate that most of faculty members showed a high degree of awareness of knowledge sharing. Regarding the factors prohibiting the willingness of the faculty members to share knowledge, the findings of the research offer the absence of an appropriate knowledge sharing culture as the major involved factor (Ghasemzadeh, 2017, pp76-86).

Akhavan et al. (2017) examined the influence of socio-psychological factors from different theoretical perspectives, as well as the roles of technological and cultural facilitators on knowledge sharing (KS) behaviors that lead to superior employees' innovative work behaviors. Partial least squares



analysis was used to investigate the research model based on a survey of 257 employees from 22 high-tech companies (including companies in pharmaceutical, nano technological, biotechnological, aviation, and aerospace industries) in Iran. The results supported the effects of three motivational factors, i.e. perceived loss of knowledge power, perceived reputation enhancement, and perceived enjoyment in helping others. And support two social capital factors, i.e. social interaction ties and trust, on employees' attitude toward KS. Findings also indicated that employees' KS behaviors enhance their innovative work behaviors (Akhavan, et al. 2017, p47).

-Another studies reviews:

KS behaviors have been giving a considering attention lately by researchers in an extensive literature. That attention was concentrated on the factors that influence KS behaviors as well as impacts of KS behaviors on the outcomes of firms at different levels. These studies focused on the relationships between KS determinants and behaviors (e.g. Bock et al., 2005; Chen and Hung, 2010; Amayah, 2013; Sanjaghi et al., 2013).

Other studies were also conducted on the relationships between KS and firm outcomes (e.g. Calantone et al., 2002; Liao et al., 2007; Akhavan et al., 2012). For instance, Amayah (2013) investigated KS enablers, motivators, and barriers in public academic institutions. While Liao et al. (2007) just examined the effects of KS behaviors on the organization absorptive capacity and innovation capability. Although some KM scholars have recently endeavored to develop an integrative model to study KS which this study concerned (e.g. Kim and Lee, 2012; Hu and Randel, 2014). Those studies also have focused only on some aspects of KS determinants and outcomes. For example, three social capitals dimensions and achieve incentives as KS

determinants, on one side, and team innovation as KS outcome, on the other, was incorporated in Hu and Randel's (2014) research model. Otherwise, they did not consider some other KS determinants like organizational contextual factors which this study concerned.

Therefore, there is still limited empirical research for developing an integrative model that explores the determinants of KS from a holistic perspective through considering motivational, sociological, and facilitating conditions. In addition, most of prior research examined the effect of KS on performance of companies at organizational level, rather than individual level (e.g. Lin, 2007; Kim et al., 2013) which this study concerned. Furthermore, most of KM studies have been conducted in Western and East Asian countries. Little empirical research has been conducted about KS in Iranian context. Iran has a relatively low Hofstede ranking in individuality and the society is collectivist rather than individualist (Hofstede, 1997). Therefore, in such a context, it would be interesting to identify the factors that facilitate KS behaviors and effects of these behaviors on individual outcomes (innovative work behaviors) in an integrative view which this study concerned. For its ability to forecast any kind of other behavior, many other researchers have taken up the theory of planned behavior (TPB) to investigate KS behaviors (e.g. Bock and Kim, 2002; Chen et al., 2009; Chennamaneni et al., 2012; Wu and Zhu, 2012; Akhavan et al., 2013). In consideration of personal factors for KS determinants, it has been proposed that both costs and benefits aspects are of importance in KS, though the latter have been given more attention than the former (Kankanhalli et al., 2005). In addition, the rational are more likely to consider the outcomes of an action (such as KS) before making a decision. Also social exchange



theory (SET) for measurement of the effects of cost and benefits on attitudes toward KS were applied. Besides, social capital, as argued by scholars, offers significant social contexts for social exchange (Nahapiet and Ghoshal, 1998) in general, and for KS (Kankanhalli et al., 2005) in particular. Previous studies have found that social capital factors, such as trust and social networks (Chow and Chan, 2008), can affect KS behaviors. Peyman Akhavan, S. Mahdi Hosseini, Morteza Abbasi, Manuchehr Manteghi, (2015) study also employed social capital theory (SCT) to form a theoretical basis for recognizing KS determinants. In addition, information and communication technology (ICT) and organizational climate were considered as complementary factors in our model.

**One can say** that Abu Ela's 2012 study is very similar to the concept, population, and methodology of this study as one studies the Arab world, but still not concentrated in behavior of knowledge sharing. While in 2012, each of Mahmoud, Anitha, and Zhang Xi, have very similar proposed hypotheses which suggested that there was a positive impact for knowledge management and its technology in achieving organizational development. In 2015, Rabie, Mahjoob and Aljabli, at the same point raised the degree of coordination of national activities for scientific research, technical development and innovation in the public and private sectors to improve the quality of scientific research and technical development. Schauer, Sen and Vasconcel in 2016 draw a practical framework to study the impact of individual concepts to share knowledge showed the participants relations by studying the key influencing individual concepts to share knowledge through enterprise system, which also related to the frame work of this study.



In the foreign literature Dude & Ngulube in 2012 and Shih Tsai in 2016 showed a much related action to this study limitation. Also the study of, Bello & Oyekunle in 2014, test trends, ideas and motivations in the behavior of knowledge sharing between faculty members in Nigeria University which considered very similar to the current study. McIver and Wan, 2016 talked about knowledge practices approach that aimed to develop a reliable and valid scale to measure implicit in the work of knowledge which is the same approached followed in the current study. In 2016, each of Tangaraja, Serenko and Bontis, focused on the same method of the transferring of knowledge as an important method of these practice.

However, the most important studies related to this study well be in the following review: SeongheeKima and BoryungJub (2008) has the same point of view when they defined a Knowledge-sharing as a process of being aware of knowledge needs and making knowledge available to others by constructing and providing technical and systematic infrastructure. Also when that study identified and analyzed major factors for knowledge-sharing among faculty members in a higher educational institution in order to examine how those factors influence campus wide knowledge-sharing which is very similar to this study. Sulaiman and Burke (2009) made a conceptualization study that provides a new understanding of adopted web documentation for the research technique, and an interpretive approach was used as the research paradigm which is have some similar to this study. Arabshahi and others (2013) study about educational and cultural environment played important roles in the direction towards the effective management of knowledge and space provision for the sharing of knowledge which is very similar to the role of this study. Islam (2013) has the same goal



of the current study which is to measure knowledge sharing behaviour of Information Science Determining factors that may influence knowledge sharing behaviour constitutes an important area of research. Chalak (2014) and Ghasemzadeh (2017) showed a similarity in goal and method which was in both studies, an investigation of knowledge sharing among the faculty members of the Iranian Library and Information Science Departments where applied survey method for gathering required data.

### **3. Findings- Data Analysis**

**3.1 The current status of the Department of Information Science** for knowledge sharing behaviors in the internal and external environment data analysis used Likert scales as follows due the small amount of respondents: always (1), sometimes (2), not used (3).

**3.2 Combative analysis and the differences in results,** this part will use the content analysis method to evaluate the website; this evaluation will start first from the conclusion of the survey and questionnaires data analysis. This evaluation will be based on Knowledge Management Processes which are divided into three factors as follows: Knowledge Diagnosis (KD)-Knowledge Generating (KG)-Knowledge Sharing (KS). The Summary of knowledge management process from the questionnaire will show some differences in the three processes between websites evaluation and organizational culture. The same evaluation was repeated from Researchers' point views to find similar results.

## 4- Results:

### 4.1 knowledge sharing behaviors by faculty members at the Information Science Department in the internal environment

From Table (2) and Figure (2) below, it appears that most statistical tests either median or mode pointed that most respondents use "sometimes" on knowledge sharing behaviors in the internal environment section in the Department of Information Science. It also appeared that the department is still not using these techniques: adding the students' researches in the end of each semester to the site section of the department, adding section activities on the website at the end of each semester, and having a special blog or discussion group on the site section of the department. All of those actions are considered very important guide tools in knowledge sharing behaviors that ISD should be aware to build them in their site. That result answers the first question of the study which says "To what extent do the faculty members in the Information Science Department use knowledge sharing behaviors in the internal environment?".

### 4.2. Knowledge sharing behaviors by faculty members at the Information Science Department in the external Environment

From table (3) and figure (3) it appears that most statistical tests either median or mode pointed that most respondents use between "sometimes and not use" on knowledge sharing behaviors in the external environment section in the Department of Information Science. It also appeared that the department still not using these techniques: "Hosting researchers who are experts in the fields in information and knowledge management from experts universities in the field", "Providing solutions of knowledge management and information management for



companies and institutions in Mecca proven through their research", "Communication with similar scientific departments in developed countries such as Britain and America to provide any kind of scientific sharing works". Also "Comparing to some of the advanced models in developing countries such as: Malaysia and Turkey in the field of information and knowledge management with some Saudi Arabian institutions". Those actions considered very important guide tools in knowledge sharing behaviors that ISD should be aware to build them in their site. That result answers the second question of the study that says "To what extent do the faculty members in the Information Science Department use knowledge sharing behaviors in the external environment?."

#### **4.3 knowledge sharing behaviors that have the ability to produce and generate knowledge by the faculty members**

The extent of using knowledge sharing behaviors that have the ability to produce and generate knowledge by the faculty members in the two sections of the department based on competitive criteria. From table (4) and figure (4), it appears that most statistical tests either median or mode pointed that most respondents do not use knowledge sharing behaviors in the external environment section in the Department of Information Science. That use only appeared "sometimes" when: promoting teamwork philosophy for the exchange of ideas and experiences between the members of the department, participating in scientific conferences, contributing the acquisition of knowledge, and depending on the use of knowledge obtained from universities and public research institutions in creating knowledge in the department. Those actions considered very important guide tools in knowledge sharing behaviors that ISD should be aware to build them in their site .This result answers

the third question of the study that says "To what extent do the faculty members in the two sections of the department have the ability to produce and generate knowledge based on knowledge sharing behaviors competitive criteria?". Moreover, the study uses "The Friedman test" which is a non- parametric statistical test. It is used to detect differences in treatments across multiple test attempts.

It appears from table (4) also, that there are statistically significant differences between the current status of the Department of Information Science for knowledge sharing behaviors, in the internal and external environment of generating knowledge, and knowledge sharing behavior in the department as it was shown in the data analysis. Thereby, confirming the hypothesis of the study that there is a significant relationship between the department's ability to produce and generate knowledge and knowledge sharing behavior.

The results indicate that the study shown an obvious and logical relationship between the current status of the Department of Information Science for knowledge sharing behaviors and the factors of knowledge sharing behaviors in the internal and external environment and generate knowledge and knowledge sharing. However the department still not aware precisely of that behaviors which underlie effective factors to generate knowledge. This result answers the fourth question of the study which says "What are the differences between using knowledge sharing behaviors among faculty members?". And approved the hypothesis of the study which says "There is a significant relationship between faculty members' ability to produce and



generate knowledge and the degree of using knowledge sharing behaviors in internal and external environments of the Information Science Department at King Abdul Aziz University in Jeddah".

Knowledge sharing behaviors by faculty members at the Information Science Department in the internal Environment (Table 2).

knowledge sharing behaviors in the internal environment		Always	Some times	Not Used	Median	Mode
1. Informal discussion sessions	#	5	18	1	2	2
	%	20.8%	75%	4.2%		
2. Formal department meeting	#	8	12	4	2	2
	%	33%	50%	16.7%		
3. Joint research work	#	3	16	5	2	2
	%	12.5%	66.7%	20.8%		
4. Joint text book work	#	1	15	8	2	2
	%	4.2%	62.5%	33.3%		
5. Participation in research groups	#	0	16	8	2	2
	%	0%	66.7%	33.3%		
6. Adding the students researches in the end of each semester on the site section of the department	#	0	10	14	3	3
	%	0%	41.7%	58.3%		
7. Adding section activities on the website at the end of each semester.	#	0	9	15	3	3
	%	0%	37.5%	62.5%		
8. Special blog or discussion group on the site section of the department	#	0	7	17	3	3
	%					

Knowledge sharing behaviors by faculty members at the Information  
Science Department in the External Environment (Table 3).

knowledge sharing behaviors at the external Environment		Always	Sometimes	Not Used	Median	mode
1. Writing Research with researchers from developed countries universities	#	3	13	8	2	2
	%	12.5%	54.2%	33.3%		
2. publishing in English refereed journal	#	4	17	3	2	2
	%	16.7%	70.8%	12.5%		
3. Hosting researchers who are experts in the fields in information and knowledge management from experts universities in the field	#	0	8	16	3	3
	%	0%	33.3%	66.7%		
4. The existence of the department website that provide faculty members full information and their contacts.	#	9	8	7	2	1
	%	37.5%	33.3%	29.2%		
5. The existence of the department website that provide programs, curriculums, and researches	#	6	11	7	2	2
	%	25%	45.8%	29.2%		
6. The presence of Arabic and English version of the Department on the site	#	7	10	7	2	2
	%	29.2%	41.7%	29.2%		
7. Providing solutions of knowledge management and information management for companies and institutions in Mecca proven through their research.	#	3	7	14	3	3
	%	12.5%	29.2%	58.3%		
8. Communication with similar scientific departments in developed countries such as Britain and America to provide any kind of scientific sharing works.	#	1	7	16	3	3
	%	4.2%	29.2%	66.7%		



9. Consulting scientists in the field of information management and knowledge management in planning for postgraduate studies from developed countries such as Britain and America.	#	1	6	17	3	3
	%	4.2%	25%	70.8%		
10. Comparing to some of the advanced models in developing countries such as Malaysia and Turkey in the field of information and knowledge management with some Saudi Arabian institutions.	#	1	11	12	3	3
	%	4.2%	45.8%	50%		

Knowledge sharing behaviors that have the ability to produce and generate knowledge by the faculty members in the two sections of the department based on competitive criteria (Table 4).

knowledge sharing behaviors		Always	Some times	Not Used	Mean	Median	Mode	Friedm an test	Sig
1. cognitive construction of research carried out in the department on page	#	1	12	11	9.12	2	2	73.312	0.00
	%	4.2%	50%	45.8%					
2. cognitive construction of research groups on a department page	#	1	10	13	9.85	3	3		
	%	4.2%	41.7%	54.2%					
3. The construction of knowledge society special	#	1	10	13	9.92	3	3		
	%	4.2	41.7	54.2					



knowledge sharing behaviors		Always	Some times	Not Used	Mean	Median	Mode	Friedm an test	Sig
events, seminars and activities at the department page									
4. construction of knowledge to allocate in global knowledge management special events, seminars and conferences on the department page	#	1	8	15	10.60	3	3		
	%	4.2%	33.4 %	62.5 %					
5. documenting the seminars and workshop on the department page	#	0	7	17	11.62	3	3		
	%	0%	29.2 %	70.8 %					
6. coordinating between the private and public sectors, activities and research in the department	#	0	10	14	10.62	3	3		
	%	0%	41.7 %	58.3 %					



knowledge sharing behaviors		Always	Some times	Not Used	Mean	Median	Mode	Friedm an test	Sig
7. linking the department with productive establishments in the city of Jeddah	#	0	9	15	11.02	3	3		
	%	0%	37.5 %	62.5 %					
8. support the faculty member innovations morally	#	1	11	12	9.52	3	3		
	%	4.2%	45.8 %	50%					
9. promote teamwork philosophy for the exchange of ideas and experiences between the members of the department.	#	3	15	6	6.81	2	2		
	%	12.5%	62.5 %	25%					
10. The establishment of specialized units and task forces to learn from the knowledge within the department and continuously affects cognitive entity at the	#	1	9	14	10.25	3	3		
	%	4.2%	37.5 %	58.3 %					

knowledge sharing behaviors		Always	Some times	Not Used	Mean	Median	Mode	Friedm an test	Sig
university									
11. the department has participate in scientific conferences, to contribute the acquisition of knowledge	#	7	13	4	5.33	2	2		
	%	29.2%	54.2 %	16.7 %					
12. the department provides continuous updating of information on the site section through communication with the external environment methods	#	1	11	12	9.52	3	3		
	%	4.2%	45.8 %	50%					
13. Adopting attending of international conferences by providing teleconferencing conferences method	#	3	5	16	10.42	3	3		
	%	12.5%	20.8 %	66.7 %					
14. Providing a list of information contents and	#	0	10	14	10.62	3	3		
	%	0%	41.7 %	58.3 %					



knowledge sharing behaviors		Always	Some times	Not Used	Mean	Median	Mode	Friedm an test	Sig
references of the department website.									
15. Providing knowledge depending on external sources of social networks and databases in knowledge discovery	#	5	9	10	7.96	2	3		
	%	20.8%	37.5%	41.7%					
16. Depending on the use of knowledge obtained from universities and public research institutions in creating knowledge in the department.	#	3	13	8	7.73	2	2		
	%	12.5%	54.2%	33.3%					
17. The department stores knowledge within digital repositories for easy access and retrieval within a research	#	1	10	13	9.88	3	3		
	%	4.2%	41.7%	54.2%					

knowledge sharing behaviors		Always	Some times	Not Used	Mean	Median	Mode	Friedm an test	Sig
engine									
18. analyzing the feedback inputs/outputs for re-using information in evaluate their planning decisions in their programs.	#	2	8	14	10.19	3	3		
	%	8.3%	33.3 %	58.3 %					

Website Evaluation from Questionnaire results (Table 5)

Elements	Knowledge Management Processes:				
	Knowledge Diagnosis(KD)-Knowledge Generating(KG)-Knowledge Sharing(KS)				
	The Factor	Always	Sometimes	Not Used	Type
1. Website Evaluation	1. Cognitive construction of research groups on a department page.	4.2%	41.7%	54.2%	KD + KG
	2. Adding the students researches in the end of each semester on the site section of the department	0%	41.7%	58.3%	KD + KG
	3. Adding section activities on the website at the end of each semester	0%	37.5%	62.5%	KD + KG
	4. The existence of the department website that provide faculty members full information and their contacts.	37.5%	33.3%	29.2%	KD + KS



	5. The existence of the department website that provide programs, curriculums, and researches.	25%	45.8%	29.2%	KD + KG
	6. The presence of Arabic and English version of the Department on the site.	29.2%	41.7%	29.2%	KD + KG
	7. Special blog or discussion group on the site section of the department	0%	29.2%	70.8%	KS
Total Percentage		13.7%	38.7%	47.6%	100%

Organizational Culture evaluation from Questionnaire results (table 6)

Elements	Knowledge Management Processes: Knowledge Diagnosis(KD)-Knowledge Generating(KG)-Knowledge Sharing(KS)				
	The Factor	Always	Some times	Not Used	type
2.Organizational Culture	1. Hosting researchers who are experts in the fields in information and knowledge management from experts universities in the field.	0%	33.3%	66.7%	KD
	2. Comparing to some of the advanced models in developing countries such as Malaysia and Turkey in the field of information and knowledge management with some Saudi Arabian institutions..	4.2%	45.8%	50%	KD
	3. Joint research work.	12.5%	66.7%	20.8%	KG + KS
	4. Joint text book work	4.2%	62.5%	33.3%	KG + KS

2.Organizational Culture	5. Participation in research groups.	0%	66.7%	33.3%	KG
	6. Publishing in English refereed journal.	16.7%	70.8%	12.5%	KG
	7. Informal discussion sessions	20.8%	75%	4.2%	KS
	8. Formal department meeting	33%	50%	16.7%	KS
	9. Writing Research with researchers from developed countries universities	12.5%	54.2%	33.3%	KS
	10. Providing solutions of knowledge management and information management for companies and institutions in Mecca proven through their research.	12.5%	29.2%	58.3%	KS
	11. Communication with similar scientific departments in developed countries such as Britain and America to provide any kind of scientific sharing works.	4.2%	29.2%	66.7%	KS
Total Percentage		11%	53%	36%	100%

Summary of knowledge management process from questionnaire  
Table (7)

Knowledge Management Processes	Website Evaluation			Organizational Culture		
	Always	Sometimes	Not Used	Always	Sometimes	Not Used
Knowledge Diagnosis(KD)	16%	40.2%	43.7%	2.1%	39.6%	58.4%
Knowledge Generating(KG)	11.7%	41.7%	46.7%	8.4%	66.7%	25%
Knowledge Sharing(KS)	18.7%	31.3%	50%	14.2%	52.4%	33.3%
Total Percentage	15.5%	37.7%	46.8%	8.2%	53%	39%



The Evaluation of IS Department Website at KAU (Table 8)

The factors related to the website	Knowledge management processes Diagnosis, generation and sharing of knowledge		
	Applied	Somewhat applicable	Not Applicable
1. Cognitive construction of research groups on a department website.			✓
2. Adding the students' researches in the end of each semester on the website section of the department.		✓	
3. Adding section activities on the website at the end of each semester.			✓
4. The existence of the department website that provide faculty members full information and their contacts.			✓
5. The existence of the department website that provide programs, curriculums, and researches.			✓
6. The presence of Arabic and English version of the Department on the site.	✓		
7. Special blog or discussion group on the site section of the department.			✓
Percentage	14%	14%	71%

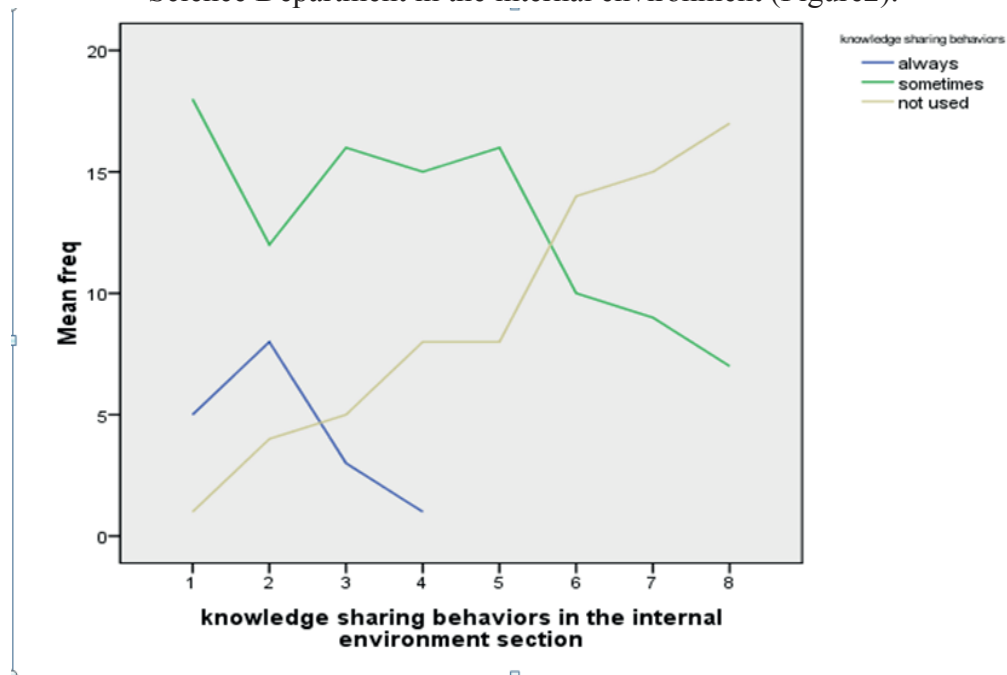
The evaluation of organizational culture at IS department /KAU (Table 9)

Factors related to organizational culture	Knowledge management processes Diagnosis, generation and sharing of knowledge		
	always	rarely	Never
1. Hosting researchers who are experts in the fields in information and knowledge management from experts' universities in the field.			✓
2. Comparing to some of the advanced models in developing countries in the field of information and knowledge management with some Saudi Arabian institutions.		✓	
3. Joint research work.		✓	
4. Joint text book work.		✓	
5. Participation in research groups.			✓

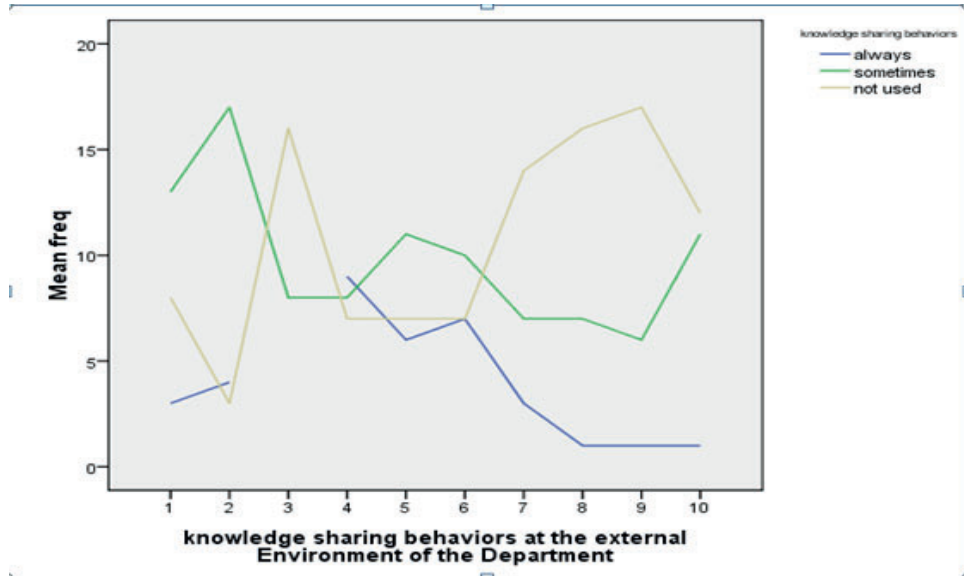


6. Publishing in English refereed journal.		✓	
7. Informal discussion sessions		✓	
8. Formal department meeting.	✓		
9. Writing Research with researchers from developed countries universities		✓	
10. Providing solutions of knowledge management and information management for companies and institutions in Mecca proven through their research.			✓
11. Communication with similar scientific departments in developed countries.			✓
Percentage	9%	54.5%	36%

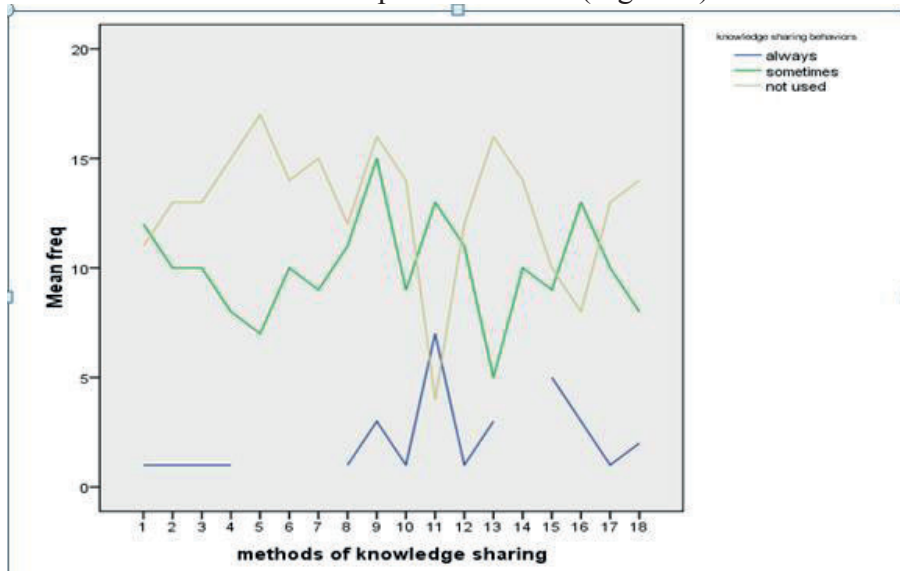
Knowledge sharing behaviors by faculty members at the Information Science Department in the internal environment (Figure2).



Knowledge sharing behaviors by faculty members at the Information Science Department in the external Environment (Figure 3).



Knowledge sharing behaviors that have the ability to produce and generate knowledge by the faculty members in the two sections of the department based on competitive criteria (Figure 4).



#### 4.4 Website Evaluation from Questionnaire results

From table (5) one can see that the factors related to the website from the questionnaire point of views in the Knowledge Management processes which mainly consist of: diagnosis, generating and sharing of knowledge. It is found that 63% of respondents agreed that department is not adding a section for activities on the website at the end of each semester, 58% are not adding the students researches in the end of each semester on the site section of the department, 54% are not having cognitive construction of research groups on a department page, and 70% are not using a special blog or discussion group on the site section of the department. Meanwhile, only 46% to 42% of the respondents agreed that the department has always had the existence of the department website that provides programs, curriculums, and researches, and the presence of Arabic and English versions of the department on the site. These results insured the previous results.

#### 4.5 Organizational Culture evaluation from Questionnaire results

From table (6) one can see that the factors related to organizational culture from questionnaire points of view in the knowledge management processes, which mainly consist of diagnosis, generating and sharing of knowledge. It is found that 67% of respondents agreed that the department is not hosting researchers who are experts in the fields of information and knowledge management from expert universities in the field. Also, the department does not communicate with similar scientific departments in developed countries such as Britain and America to provide any kind of scientific sharing works. Moreover, 58% to 50% agreed that the department is not providing solutions of knowledge management and information management for companies and institutions in Mecca, which is proven through their research, not by comparing some of the



advanced models in developing countries such as Malaysia and Turkey in the field of information and knowledge management with some Saudi institutions. While they agreed that the department sometimes conducted joint research work (67%), joint text book work (63%), participation in research groups (67%), publishing in English refereed journal (71%), informal discussion sessions (75%), formal department meeting (50%), and writing research with researchers from developed countries universities (54%). This result answers the fifth question of the study which says " How to evaluate the site of the IS department on the KAU website?".

From table (7) it appears that is the IS Department at KAU does not use knowledge diagnosis: by 44% in website, and by 58% in organizational culture. It also does not use knowledge generating: by 47% in website, but used "sometimes" by 67% in organizational culture. It also appears that the department does not use knowledge sharing: by 47% in website, but used "sometimes" by 53% in organizational culture. This conclusion answers the forth question of the study which is "What are the differences in using knowledge sharing behaviors among faculty members?".

#### 4.6 Evaluation from Researchers' points of view

As it is shown in table (8), the factors related to the IS website at KAU (look p-3) from Researchers' points of view in the knowledge management processes, which mainly consists of diagnosis, generating and sharing of knowledge, equally applied, and applied sometimes with 14% in: the presence of Arabic and English versions of the department on the site, and in adding the students' researches at the end of each semester to the website section of the department. Meanwhile, 71% of the other factors were not applied in the department, which are: cognitive construction of research groups on a department website, adding section activities on the website at the end of each semester, the existence of the department website that provides faculty members full information and their contacts, the existence of the

department website that provides programs, curriculums, and researches, and finally, a special blog or discussion group on the site section of the department.

As shown in table (9), the factors related to organizational culture from the researchers' points of view in the knowledge management processes, which mainly consist of diagnosis, Generating, and sharing of knowledge has always been considered only in formal department meetings. In addition, 55% of the other factors were rarely considered in those processes which are: comparing to some of the advanced models in developing countries in the field of information and knowledge management with some Saudi institutions, joint research work, joint text book work, publishing in English refereed journals, informal discussion sessions, and writing research with researchers from developed countries universities. While 36% of the sample admitted that there was never any hosting for researchers who are experts in the fields of information and knowledge management from experts universities in the field, participation in research groups, providing solutions of knowledge management and information management for companies and institutions in Mecca is proven through their research, and communication with similar scientific departments in developed countries. Only 9% of the respondents agreed that they have always had formal department meeting.

These findings used the observations of the researchers which proved that factors related to the website is still not applied by 71%, and the factors related to organizational culture rarely applied by 55%. This result also proves the fifth question of the study which says " How to evaluate the site of the IS department on the KAU website?".



## 5-Discussions & Conclusions:

From the survey study, it appeared that the IS department at KAU did not use knowledge diagnosis: by 44% in website, and by 58% in organizational culture. It also did not use knowledge generating: by 47% in website, but used by 67% in organizational culture. It also appears that the department did not use knowledge sharing: by 47% in the website, but it is used by 53% in organizational culture. These findings were proven by using the observations of the researchers which proved that factors related to the website were still not applied by 71%, while the factors related to the organizational culture rarely applied by 55%, in the comparative study which confirmed the results of the survey.

It also appeared that the department had still not using the following techniques: adding the students' researches at the end of each semester on the site section of the department, adding section activities on the website at the end of each semester, and having a special blog or discussion group on the site section of the department, which had all considered very important tools in internal knowledge sharing behaviors.

Additionally, it appeared that the department has still not using the following techniques: hosting researchers who are experts in the fields of information and knowledge management in prominent universities in the field, providing solutions of knowledge management and information management for companies and institutions in Mecca proven through their research, communicating with similar scientific departments in developed countries such as Britain and America to provide any kind of scientific sharing works, and comparing to some of the advanced models in developing countries such as Malaysia and Turkey in the field of information and knowledge management with some Saudi an institutions, which are considered very important tools in external knowledge sharing behaviors.

It also appeared that most respondents did not use knowledge sharing behaviors in the external environment section in the Department of Information Science, except that they sometimes use: promoting teamwork philosophy for the exchange of ideas and experiences between the members of the department, participating in scientific conferences, contributing the acquisition of knowledge, and depending on the use of knowledge obtained from universities and public research institutions in creating knowledge in the department.

Thus, conclusions made the researchers illustrate three models in the coming section, to clarify the procedures of knowledge sharing behaviors in the information science department in the faculty of Arts and humanities at King Abdul Aziz University. These models added a scientific lead for further research to determine the suitability of this concept of participation of knowledge and displayed the difference between Arab environments and Western ones. Those models helped to find a mechanism to build and create knowledge, to share among the faculty members of the Department of Information Science, and to positively affect the quality of knowledge sharing of any other society.

## **6-Models of this research:**

The three models of Knowledge sharing in internal and external levels of the department will clarify the ability to create and generate knowledge based on competitive criteria. These criteria considered some of the studies in literature reviews such as: Mitton et al. 2007 (individual, organization, communication) Luo & Yin 2008 (organizational culture, knowledge features, knowledge provider & receiver) and Wang & Noe 2010 (motivational or interpersonal & team) as it is shown in figure (5).

The models have also shown the interactivity between individual behavior, departmental behavior, and organizational behavior,



which develops knowledge sharing in the department both internally and externally.

Figure (6) is showing the ability of creating and generating knowledge based on competitive criteria should consider creating some site section within the department that features formal meeting, informal discussion, joint research work, joint text book work, research groups, students' research records, department's activities records, and a blog discussion group in the same kind of interactivity that has been mentioned above.

This ability of creating and generating knowledge based on competitive criteria should also consider establishing some site section of the department features, external of the department in figure (7), such as: writing research with researchers from universities in developed countries, publishing in English refereed journals, hosting expert researchers, and providing full information contacts of the faculty members on the department website.

Additional elements are necessary such as the existence of the department website that provides programs, curriculums, and researches, the presence of Arabic and English versions of the department on the site, and the availability of solutions in knowledge management and information management for companies and institutions in Mecca.

Moreover, communication with similar scientific departments in developed countries such as Britain and America to provide any kind of scientific sharing works, and consulting scientists in the field of information management and knowledge management in planning for postgraduate studies from developed countries. These actions should be applied in the same kind of interactivity as mentioned above, are all necessary factors to insure further improvements in the field.

These models have proved the last goal which considered the following: finding a mechanism to build and create knowledge to



manage and share among the members of the Department of Information Science. Producing these models give practical implications for internal and external interactivity for social knowledge sharing among faculty members in the IS department. These models considered strategic planning, information seeking, and information technology systems in competitive criteria.

## 7-Theoretical/Practical implications

Theoretical implications- Moreover, the frame work of the study will be a good tool to theoretical reviews for the graduate students in Knowledge management program. A practical framework to study the impact of individual concepts to share knowledge showed the participants relations by studying the key influencing individual concepts to share knowledge through enterprise system, which also related to the frame work of this study. Also this study had proposed and empirically investigated the integrative model that explores the structural relationships among determinants. The results from literature analysis underline a strong support for the proposed relations, the process

of shaping KS behaviors by people and their effect on individual outcomes. Moreover, the findings of this study will provide a theoretical basis for further generalizations not only within the universities atmosphere but also in other knowledge-intensive contexts. More importantly, our research module proposed in this study facilitated the analysis of KS behaviors and its outcome at individual level and organization level in a single framework which has been rare in prior research. In the literature reviews Dude & Ngulube, 2012. Shih Tsai, 2016. Bello & Oyekunle , 2014. McIver and Wan, 2016. Tangaraja, Serenko and Bontis, 2016. SeongheeKima and BoryungJub, 2008. Sulaiman and Burke 2009, Arabshahi and others. 2013. Islam, 2013. Chalak, 2014 and Ghasemzadeh, 2017 Showed trends, ideas and motivations in the behavior of knowledge sharing between faculty members. Also showed knowledge practices approach that aimed to develop a reliable and valid scale to measure implicit in the work of knowledge, focused on the same method



of the transferring of knowledge as an important method of these practices. Also, defined a Knowledge-sharing as a process of being aware of knowledge needs and making knowledge available to others by constructing and providing technical and systematic infrastructure. Also identified and analyzed major factors for knowledge-sharing among faculty members in a higher educational institution in order to examine how those factors influence campus wide knowledge-sharing made a conceptualization that provides a new understanding of adopted web documentation for the research technique. An interpretive approach was used as the research paradigm in educational and cultural environment that played important roles in the direction towards the effective management of knowledge and provision for the sharing of knowledge.

Practical implications -This study made the following suggestions to help ISD to establish a successful KS strategy in knowledge-in competitive criteria. Innovative work behaviors from an integrative view may instruct faculty members how to achieve competitive advantage by improving employees' KS behaviors to develop innovation capability by these five movements. First by identifying the current status of the Department of Information Science for knowledge sharing behaviors in the internal environment. Second, by identifying the current status of the Department of Information Science behaviors knowledge sharing in the external environment. Third, by Selecting the participant's ability to produce and generate knowledge based on competitive criteria. Fourth, by Comparing the knowledge and knowledge generated from internal and external level, using the measurement for the better ideals.

Fifth, by Designing models of knowledge sharing behaviors in internal and external environments of information science department in the faculty of Arts and humanities at King Abdul Aziz University in Jeddah.

As a consequence, organizations are recommended to foster KS by promoting pro-social and organizational citizenship behavior. In addition, firms can elevate the perceived enjoyment of their

employees' KS through linking KS initiatives with various corporate social responsibility missions and community activities where giving knowledge to each other can lead to the same or greater level of self-esteem and satisfaction (Hau et al., 2013). Moreover, social pressure from peers to participate in knowledge exchange will also create positive environment for sharing. This is what the study tried to find by drawing its models.

Also the factors which are considered important in this study well be a useful guide lines for evaluation and performance measurement. The evaluation was divided to two parts: One related to the website and the other related to the organizational culture at IS department. The factors distributed in the three main functions in knowledge management processes, which mainly consist of diagnosis, generating and sharing of knowledge. This kind of evaluation can be manual to know the strength and weakness in the department or any website systems.

Figure 5: Knowledge sharing behaviors in information science department in the faculty of Arts and humanities at King Abdul Aziz University in Jeddah.

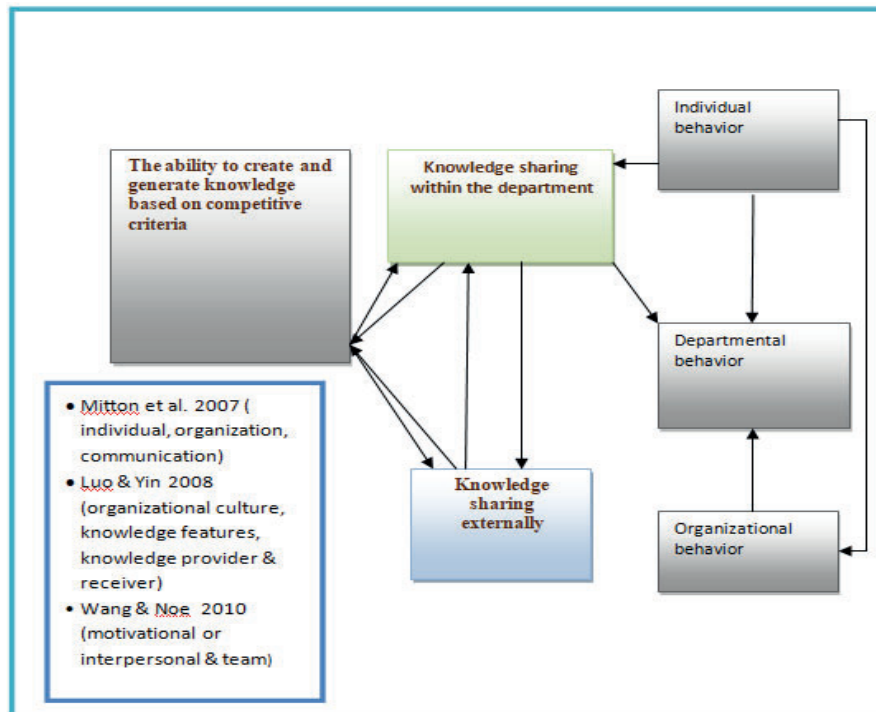


Figure 6: Knowledge sharing within the department

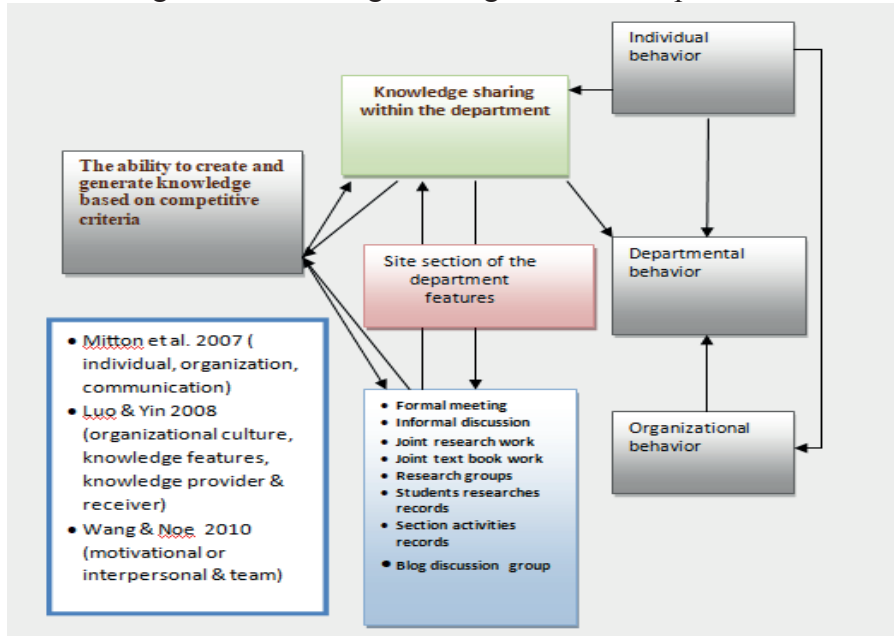
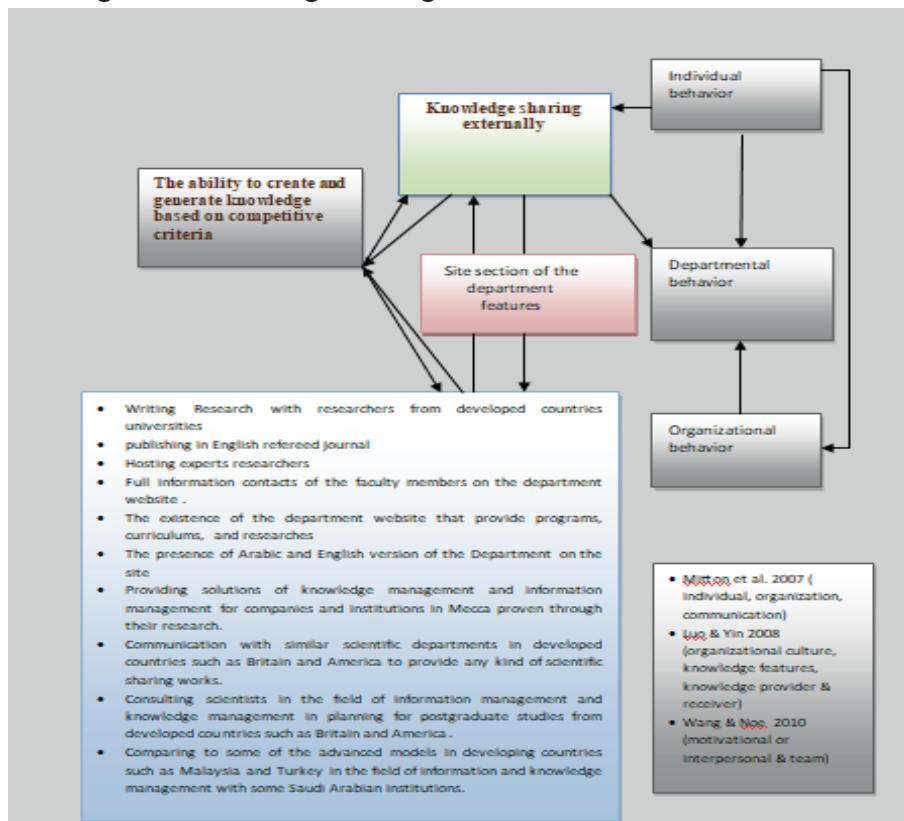


Figure7: Knowledge sharing within the external environment



## 8-Recommendations

Although the research results are applicable particularly for ISD faculty members in university, limitations of this study should be realized and suggestions for future research must be made. Future research, however, will certainly take advantage of collecting longitudinal data in other departments and faculties in KAU University to lend support to the causal relationships. Also further study needed to measure the factors connected to the knowledge organization and knowledge preservation on KS among faculty members.

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