Knowledge Sharing In The Jordanian Universities

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ABSTRACT:

This study investigates knowledge sharing in the Jordanian universities by analyzing the relationships between staff's attitudes toward knowledge sharing and their demographic variables. After interviewing 300 participants; it has been found that the academic staff are less interested in sharing their knowledge than administrative staff. The study provides solutions for the practitioners and recommendations for the researchers in this field.

Keywords: *Knowledge management, Knowledge sharing, Education, Middle East, Jordan*

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1. Background

Knowledge sharing is part of every day organizational life; it recognizes the personal nature of people's knowledge gained from experience (Awad and Ghaziri, 2004). Implementing knowledge sharing in the work environment is limited by many factors such as culture, polices, strategies, technologies and even the personality of workers; which can be considered the most important factor.

A popular definition for "knowledge" is the awareness and understanding of a set of information and ways that information can be made useful to support a specific task or reach a decision (Stair, and Reynolds 1998). The mass use of knowledge in many fields such as business, economics, and psychology leads to the need to manage it and create a new concept called knowledge management. Moreover it can be considered as the process of gathering a firm's collective expertise wherever it resides –in databases, on paper, or in peoples heads-and distributing it to where it can help produce the biggest payoff (Awad, and Ghaziri, 2004).

The knowledge management process involves many activities including knowledge creation, knowledge capture, knowledge codification, knowledge transfer and knowledge sharing; which is the most commonly discussed activity nowadays. According to Christensen (2007:37) the goal of knowledge sharing can be either to create new knowledge by combining existing knowledge in another way or to become better at exploiting the existing knowledge.

Knowledge sharing creates better access to the knowledge in order to transfer and apply this knowledge, which is then used to solve problems in a much faster and

cheaper way. The ability "to know" is something very personal, something that when asked to share, breaches personal boundaries. It is like asking them to give up their power, something unique to that individual, but people within an organization, by way of sharing their thoughts, beliefs, knowledge and experience, mutually establish their common understandings (Yang, 2007).

A large number of studies show that knowledge sharing is the main factor in creating innovational organization. However these studies also show that there is a lack of understanding by the organizational and individual factors that discourage the implementation of knowledge sharing. These factors may vary in their impact on knowledge sharing.

The organizational culture, company strategies and polices, attitude and work norms are classified as an organizational impediment; while personality is classified as an individual impediment. This paper investigates the impact of age, gender, job specifications and the education level of employees with respect to knowledge sharing as an individual impediment.

Knowledge sharing can be compared to pro-social citizenship behavior, according to (Brief and Motowidlo, 1986); pro-social citizenship behavior is an appositive social act carried out to produce and maintain the well-being and integrity of others. It includes some acts that can be directed towards the individual or the organization. These acts include: helping, sharing, donating, cooperating, and volunteering. According to (Kelloway and Barling, 2000) knowledge sharing must be voluntary, it is not necessarily spontaneous, in contrast with pro-social organization behaviors that must be both spontaneous and voluntary.

In order to achieve long-term success, an organization's members should be able to learn continuously and share what they learn to achieve innovative knowledge. Furthermore they should not just capture this knowledge and transfer it, they must practice it. By sharing the knowledge among the organization's members it will be reflected in the individuals, thus by sharing and learning to collect knowledge and using it to create new knowledge. Nevertheless we must keep in mind that motivating people to share their knowledge is not an easy task.

2. Literature Review

Researched has adopted demographic variables to understand knowledge sharing, According to (Connelly and Kelloway, 2003) gender acted with the perceived social interacted culture with respect to the knowledge sharing culture. Meaning that a woman who reports appositive social interaction culture is much more likely to perceive a highly positive knowledge sharing culture in her respective organization as well. Female employees have been conditioned to be helpful, but given their frequently less advantaged positions in many organizations they may be hesitant to share their knowledge with colleagues if they believe that they will be sharing away their power, appositive sharing interaction culture may allow female employees to forge the trust among colleagues that allows knowledge sharing to take place. Another study by (Miller, and Karakowsky, 2005) found differences between men and women in the

ways in which the feedback process is approached, and that both the group gender composition and the gender orientation of the task will have a significant impact on feedback-seeking behavior.

According to (Yang, 2007) the ultimate goal of acquiring and sharing knowledge is the transfer of all individual experience and knowledge to organizational capabilities. The more the individual intellectual capital is transferred to organizational assets, the greater the degree of strength of organizational capabilities, (i.e. its effectiveness) will become. In other words, appropriate transfer of individual knowledge would result in knowledge appreciation, and consequently, enhance the outcomes of organizational learning and thereby organizational effectiveness. Yang (2007) found no differences between different age groups regarding knowledge sharing.

The impact of the educational level upon knowledge sharing is highlighted in the literature (e.g. Bakker *et al.*, 2006). It is stated that people mainly go to other people with higher levels of education/expertise to share knowledge with; on the other hand, education level does not play a role in knowledge sharing if there is a trust between the coworkers. Then all parties will exchange their knowledge despite education levels (Monge and Contractor, 2003).

The majority of studies found relationships between education levels and experience, a high degree of education with a lot of work experience, thus sharing this experience with others depended on the personality. According to (Christensen, 2007), professional knowledge basically describes knowledge that enables the operation supporter to perform his/her job. Administrative knowledge is limited to the practice of being an operation supporter, and has also been referred to as know-how (Brown and Duguid, 2000). Administrative knowledge originates in a person's formal education in combination with his/her experience in performing the job. Administrative knowledge is a prerequisite for being able to contribute to organizational activities, as a specialist, but in itself does not produce any organizational outcome.

Sharing specialized knowledge depends on the employee's education level-, coordinating knowledge, object-based knowledge and know-how is facilitated differently, and considering knowledge sharing as encompassing a generic form of knowledge denominated best practice will most likely produce little positive organizational outcome (Christensen, 2007).

The relationship between "job specifications" and knowledge sharing is highlighted in the literature. According to (Ardichvili *et al.*, 2006), in more hierarchical organizations the top managers' need for control over the information flow as well as the desire to restrict access to critical information by lower-level employees, could lead to significant organizational barriers to knowledge sharing. Active participation in online knowledge sharing presumes that individual employees will feel free to post questions and respond to postings without checking with their supervisors first, such behavior could be seriously limited in hierarchical societies.

Ryu et al. (2003) investigated the knowledge sharing attitudes for physicians within hospitals. This study is of a particular relevance as they operate in the same

environment as professional nurses. They stated that, professional nurses routinely use highly developed domain knowledge in combination with experiential knowledge to deliver quality care.

An extensive review of the related literature identified seven dimensions of knowledge sharing namely, mutual relationships, organization practice, sense of togetherness, creativity, positive feeling about knowledge sharing, intension to share knowledge, and knowledge sharing behavior.

2.1. Mutual Relationships

This means making relationships with others and being creative, having a sense of togetherness among team/university members, or having appositive feeling about sharing knowledge as well as their future intensions to share more knowledge with each other. It also means cooperating and collaborating with other team members and expanding the scope of association with other members in the teams. This also creates a strong relationship with members who have common interests in the team and by building these relationships it will help others in the team to solve problems. Building mutual relationships with others is to share knowledge with other workers, it can be considered as one of the most important methods that encourage knowledge sharing. Knowledge sharing can be applied by the following:

- discussion groups.
- face-to-face interactions and training (e.g. Husted and Michailova, 2002)
- periodic meetings across teams/work units (Bartol and Srivastava, 2002)
- best practices (Bartol and Srivastava, 2002; McDermott and O'Dell, 2001)

2.2. Organizational Practice

The way work is being done in the organization and the relationship between the employee and the manager defines organizational practice. How does the manager evaluate the employee? It also involves the fairness of dealing with every employee, and what are the reasonable aims and objectives of the organization?

The best-practiced companies see sharing knowledge as a practical way to solve business problems (McDermott and O'Dell, 2001). Best-practiced organizations could easily describe how sharing knowledge contributes to business goals. The best-practiced companies make a visible connection between sharing knowledge and the business. Best-practiced organizations also vary a great deal in the look and feel of their knowledge sharing efforts (McDermott and O'Dell,2001).

2.3. Sense Of Togetherness (Team)

The team is a group of people used to identify and solve specific problems. It can also be an effective way to share knowledge with others. Team members require the

existence of trust in order to respond openly and share their knowledge (Al-Alawi *et al.*, 2007). By building a trust through the team members, knowledge sharing will become a habit and it will make the relationships between the members and the managers stronger. Teamwork, discussion and collaboration enhance communication between members and it assesses the sense of togetherness. Members will keep close ties with each other and have a stronger sense of one team and loyalty towards the whole organization.

2.4. Creativity

Creativity is a complex cognitive activity which requires both motivation and knowledge (Podgorelec *et al.*, 2006), it is defined as the unique way to do or perform tasks. The organizational culture plays a major role in assessing creativity in the work environment and the rules encourage its employees to express themselves by communicating with each other. It will reduce the gap between the employees and the managers, making the employees more comfortable at work and giving them the satisfaction that will motivate them to be creative.

The following are some factors that may encourage creativity:

- *Internal Communications*: within an organization reduce organizational stress and standpoints conflicts, thus improving organizational creativity

- *Motivation:* one can do a certain job with much more creativity if he/she has the self-motivation to do it rather than being motivated by someone else.

2.5. Positive Feeling About Knowledge Sharing

Is away to measure the employees' satisfaction about knowledge sharing in the organization. If the organization practices knowledge sharing in its environment through team work, the employee will feel more comfortable at work and they will be inspired by others' knowledge. A sense of team spirit will evolve and every employee will consider his/herself as an effective member in the organization. The positive feeling happens when the employees see the results of their knowledge sharing. They will consider it as an enjoyable experience and thus increase their future intensions to share knowledge with other team members as well as other teams.

2.6. Intension To Share Knowledge

Means that the employees' willingness to share knowledge in the present and the future, moreover it proposes the sharing of knowledge in every possible way. Sharing knowledge involves the documented and undocumented knowledge, the tacit and explicit; the sharing of knowledge involves the employees' experience from education or training with other teams.

2.7. Knowledge Sharing Behavior

It measures the degree of employee's positive cognition based on his/her feeling of personal contribution to the team. The organization's culture plays a major role in

determining the knowledge sharing behavior; as well as the effective and sufficient rewards that bring success, this reinforces knowledge sharing behavior.

(Lim, 2004) reviewed the factors affecting the individual's knowledge sharing behavior in the organizational context, focusing on the impact of financial rewards and organizational behavior on knowledge sharing. They noted that the knowledge sharing attitudes were more evident in a face-to-face context rather than the electronic medium. Employees were found more willing to share knowledge with increased rewards. The study recommended customizing the reward systems and knowledge sharing contexts in order to facilitate a smoother flow of knowledge in the enterprise.

3. Methodology

This study follows a quantitative methodology to investigate knowledge sharing at the Jordanian Universities. The study focuses on the attitudes of the academic and administrative staff at the Jordanian Universities towards knowledge sharing. Through an extensive review of related literature; seven dimensions of knowledge sharing have been identified namely, mutual relationships, organization practice, sense of togetherness, creativity, positive feeling about knowledge sharing, intension to knowledge sharing, and knowledge sharing behavior. A questionnaire has been developed to measure the participants' attitudes toward knowledge sharing on five-point Likert scale.

A sample of 300 participants has been chosen randomly from three main Jordanian universities namely, the University of Jordan, AL-Balqa Applied University and the Arab Academic for Banking and Financial Sciences. A hundred participants from each University were taken and a total of 300 questionnaires were distributed. Of the 300 questionnaires 182 were returned; 52 questionnaires from the University of Jordan, 93 from Al-Balqa Applied University and 37 from the Arab Academy.

The data was subject to analysis using F test to investigate the relationships between the participants' attitudes towards knowledge sharing and their demographic variables.

4. Analysis And Discussion

The relationships between the participants' demographics and knowledge sharing are presented in Table 1.

Table 1: The Relationship Between The Participants' Demographics And Knowledge Sharing

Source	Dependent variable	Mean square	f	Sig.
gender	Mutual relationships	.444	.969	. 326
	Organization practice	.222	.334	.564
	Team	.501	.634	.427
	Creativity	.039	.045	.833
	Positive feeling	.135	.355	.552

	Intention to KS	1.192	1.920	.167
	KS Behavior	.004	.012	.912
Education- level	Mutual relationships	2.002	4.370	.038
	Organization practice	.562	.848	.358
	Team	.149	.189	.664
	Creativity	.260	.299	.585
	Positive feeling	1.260	3.333	.069
	Intention to KS	2.114	3.404	.066
	KS Behavior	0.884	3.000	.085
Job Specification	Mutual relationships	3.257	7.110	.008
	Organization practice	2.775	4.186	.042
	Team	.813	1.029	.311
	creativity	.973	1.120	.291
	Positive feeling	2.281	5.993	.015
	Intention to KS	2.936	4.728	.031
	KS Behavior	2.046	6.944	.009
Age				
	Mutual relationships	.192	.419	.739
	Organization practice	.225	.339	.797
	Team	1.119	1.415	.239
	creativity	2.485	2.861	.038
	Positive feeling	.455	1.195	.312
	Intention to KS	.561	.904	.440
	KS Behavior	.247	.838	.474

KS: Knowledge Sharing

4.1. Gender

The results presented in table 1 shows that there is not significant relationships between the participants' gender and knowledge sharing. In other words, there is no significant difference between male and female participants' in terms knowledge sharing.

4.2. Education Level

As shown in table 1, there is a significant difference in mutual relationships between different levels of education. Furthermore the results found no relationships between the level of education and the other dimensions of knowledge sharing.

A detailed comparison between different levels of educations is presented in table 2. Under graduate participants have a mean of ($4.100^{a)}$ which means that they have a strong degree of attention to improve mutual relationships with others through knowledge sharing in comparison to the post graduate participants.

Table 2: Level Of Education And Knowledge Sharing

Dependent Variable education-level	Mean	Std.Erorr	95%confidence interval	
			Lower Bound	Upper Bound
Mutual relationships post graduate	3.796[a]	.112	3.574	4.017
Under graduate	4.100[a]	.092	3.919	4.280

The cultural and work environment may encourage them to make communication and build mutual relationships with each other. The under graduate may have time to build mutual relationships and communicate with each other. They often work in teams, discuss issues, solve problems and learn from others through knowledge and experience. On the other hand the post graduate may have a full schedule, they have no time to build mutual relationships with others, they prefer self-education, and depend on themselves to solve their problems rather than asking the others.

4.3. Job Satisfaction

As shown in table 1, there are significant relationships between job satisfaction on one hand and mutual relationships, such as organization practice, positive feeling, intension to share knowledge and knowledge sharing behavior, on the other. As presented in table 3, administrative workers have more mutual relationships, organizational practices, positive feeling, intensions to share knowledge, and knowledge sharing behavior than academic staff. This partly explains the fact that the administrative jobs depend on team work and the team members are usually more effective in their positions. They have good communication skills and make a many interrelationships.

Table 3: Job Specification And Knowledge Sharing

Dependent Variable job specification	Mean	Std.Erorr	95%confidence interval	
			Lower Bound	Upper Bound
Mutual relation academic	3.793[a]	.108	3.581	4.005
administrative	4.102[a]	.096	3.912	4.292
Team academic	3.362[a]	.141	3.084	3.640
administrative	3.419[a]	.127	3.169	3.669
Positive feeling academic	3.297[a]	.098	3.104	3.490
administrative	3.605[a]	.088	3.432	3.779
Intention to KS academic	3.542[a]	.125	3.295	3.788
	3.818[a]	.112	3.597	4.039

administrative				

KS: Knowledge Sharing; a:significant

Moreover the administrative jobs depend on the cooperation between other schools and departments within the universities. On the other hand, the academics work more individually and can improve their own knowledge through self learning. Likewise, the job stress leaves them with little time to communicate or share their knowledge with others. They depend on their own experience to solve the problems they face. The administrative staff have a higher degree of positive feeling which means they find knowledge sharing with other team members to be a good and enjoyable experience. This is valuable to them and they feel enlightened by sharing their knowledge with other members in the team/university.

The administrative staff prefer working in teams and have the ambition to do more as a team because it makes the work process more efficient and helps to achieve their goals. They believe that by working in teams, their association with other members creates stronger relationships. The work becomes easier, completed faster and the experience is more useful; therefore they have more intentions and positive feeling towards knowledge sharing.

4.4. Age

As presented in Table 1, there is a significant relationship between the participants' age and creativity. Table 4 presents more information about this relationship; it shows that the participants aged 50 and above are significantly more creative than others.

Table 4: Age And Knowledge Sharing

Dependent Variable	job specification	Mean	Std.Erorr	95%confidence interval	
				Lower Bound	Upper Bound
Creativity	20-29year	3.117	.118	2.884	3.350
	30-39year	3.026	.175	2.682	3.370
	40-49year	3.330	.226	2.885	3.774
	50 year and above	3.976[a]	.294	3.396	4.556

a:significant

Men and women in this category perform their job depending on their work experience; they solve their problems by using their heuristic knowledge or similar cases. The study shows that because of their experiences, older people feel more empowered to suggest new ideas for job development; whereas younger workers have little experience in their jobs and have some fears taking risks. They have been found to be more committed to the rules and regulation which govern their work. Thus they do not give themselves the chance to be creative like older workers.

5. Conclusion

This study gives further insight into knowledge sharing in the Jordanian Universities. The results of the study reveal that academic staff are less motivated than administrative staff in respect to knowledge sharing. Academic staff have fewer mutual relationships, team working opportunities, intentions and motivations to share their knowledge. Thus, academic staff at the Jordanian universities must be encouraged to share their knowledge with their colleagues. Further qualitative research is suggested in order to understand the reasons behind the academic staff's lack of interest in knowledge sharing. This will provide solutions for this serious problem.

Moreover it has been found that younger staff are not encouraged to be creative. It is suggested to provide more freedom and encourage younger staff to be more creative. The results revealed no differences between female and male staff in terms of knowledge sharing.

Researchers in this field are encouraged to conduct detailed research for further understanding of this phenomenon. Finally, research is needed not only in the Jordanian academic institutions but in other institutions, as the related literature shows a lack of interest in knowledge sharing throughout Jordan.

6. References

Al-Alawi, A. I, Al-Marzooqi N. Y. and Mohammad, Y. F. (2007), Organizational culture and knowledge sharing: critical success factors, Journal of Knowledge Management, 22(4), 22-42.

Ardichvili, A., Maurer, M., Li, W., Wentling, T., and Stuedemann, R. (2006), Cultural influences on knowledge sharing through online communities of practice. Journal of Knowledge Management, 10(1), 94-107.

Awad, E.M. and Ghaziri, M.H. (2004), knowledge management, Pearson Education, inc, Upper Sddle River.

Bakker, M., Leenders, R.T.A.J., Gabbay, S.M., Kratzer, J. and Van Engelen, J. (2006), Is trust really social capital? Knowledge sharing in product development projects, The Learning Organization, 13 (6), pp. 594-605.

Bartol, K. and Srivastava, A. (2002), Encouraging knowledge sharing: The role of organizational rewards, Journal of Leadership and Organization Studies, 9(1), 64-76.

Brief, A.P. and Motowidlo, S.J(1986), Prosocial organizational behaviors, Academy of Management Review, 11, 710-25.

Brown, J.S. and Duguid, P. (2000), The Social Life of Information, Harvard Business School Press, Boston, MA.

Christensen, P.H. (2007), Knowledge sharing: moving away from the obsession with best practices, Journal of Knowledge Management 11 (1), 36-47.

Connelly, C., Kelloway, E. (2003), predictors of employees perceptions of knowledge sharing culture, Leadership And Organization Development Journal. 24 (5), 294-301.

Husted, K. and Michailova, S. (2002), Diagnosing and fighting knowledge sharing hostility. Organizational Dynamics, 31(1), 60-73.

Jen-te Y. (2007), The impact of knowledge sharing on organizational learning and effectiveness", Journal Of Knowledge Management, 11(2), 83-90.

Kelloway, E.K. and Barling, j. (2000), knowledge work as organizational behavior, international journal of management reviews, 2 (3), pp.287-304.

Lim, D. H. (2004). Cross cultural differences in online learning motivation. Educational Media International*, 41*(2), 163 - 173.

McDermott, R. & O'Dell, C. (2001), Overcoming cultural barriers to sharing knowledge, Journal of Knowledge Management*,* 5 (1), 76 - 85.

Miller, D.L. & Karakowsky, L. (2005). Gender influences as an impediment to knowledge sharing: When men and women fail to seek peer feedback. Journal of Psychology 139 (2), 101-118.

Monge, P.R. and Contractor, N. (2003), Theories of Communication Networks, Oxford University Press, New York, NY.

Podgorelec, V., Pavlič, L. and Heričko, M. (2006), Semantic Web Based Integration of Knowledge Resources for Supporting Collaboration. Informatica, 31, 85–91.

Ryu, S., Hee Ho, S., & Han, I. (2003). Knowledge sharing behavior of physicians in hospitals. Expert Systems with Applications, 25(1), 113-122.

Stair, R. and Reynolds, G. (1998), Principles of Information Systems Cambridge. Mass: International Thompson Publishing.

Yang, J. (2007), The impact of knowledge sharing on organizational learning and effectiveness, in Journal of Knowledge Management*,* 11(2), 83-90.

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