The Impact of Organizational Information on Knowledge Management Practices

Dr. Abdel-Aziz Ahmad Sharabati

Dr. Kamel Mohamad Hawajreh

Business College
Middle East University
Amman, Jordan

Abstract

The purpose of the study was to investigate the influence of Organizational Information (OI) on Knowledge Management Practices (KMP) in Jordanian Industrial Companies (JICs). Practical data were collected from 206 managers (companies) out of 1242 managers (companies) by means of a questionnaire. Statistical techniques such as descriptive statistics, t-test, and multiple regressions were employed. The results of the study indicated a positive significant relationship between Organizational Information and Knowledge Management Practices. Empirical results also indicated that the communication channels were having significant and strong impact on Knowledge Management Practices, while, organization environment was having low (not significant) impact on Knowledge Management Practices. The results can provide the reference for further researches about the relationship between Organizational Information and Knowledge Management Practices.

Key Words: Organizational Information (OI), Knowledge Management (KM), Knowledge Management Practices (KMP), Jordanian Industrial Companies (JICs)

1.1 Introduction

"The term knowledge is used broadly and it includes all forms of data content such as music, films or books, as well as, any other type of information" (Land 2009). For centuries, scientists, philosophers and intelligent laymen have been concerned about creating, acquiring, and communicating knowledge and improving the re-utilization of knowledge (King 2009). It's only due to the advances in IT technology did people begin to feel the pressure of learning (Huang and Wang 2008). While, the development of many technological applications enhanced organizational capacity and caused a massive influx of information and their use in organizations (Song et. al. 2006), the knowledge sharing is a key ingredient for the success of any Knowledge Management initiative (Watad and Alvarez 2007). Internet-based virtual tools have created new opportunities for rapid access to business information world-wide (Elli and Kerstin 2009). Finally, Zhang (2008) divided KM into two tracks: "IT-Track KM = Management of Information. People-Track KM = Management of People." In the IT track, the emphasis is on using software and the Internet to capture information in databases. In the people track, emphasis is on creating an environment that fosters innovation and the highest possible level of skill utilization.

1.2 Literatures Review

Information and knowledge are combined with the experience and intuition (Xie 2009). Knowledge is information that has been processed, organized and restructured to be ready for use (Hester 2009). Knowledge management is "do what is necessary to get the maximum benefit from the sources of knowledge" (Fernandez et. al. 2004). It is effective learning processes associated with the exploration and exploitation of human and knowledge sharing that use technology and appropriate environment to enhance performance and intellectual capital (Jashapara 2004). Knowledge management initiatives are continuing to make tangible and intangible contributions to the organizations around the world by connecting Knowledge management with the bottom line, and integrating Knowledge management effectively into business strategy (Nadeem 2005).

Technology caused the explosion of information, because of lower cost of multimedia technology, which simplified the process of access to information and helped to spread information (Whelan & Teigland 2010).

There is a correlation between knowledge management processes and knowledge management capabilities (Hodge 2010). Organizing knowledge management has contributed to knowledge generation, which seeks to improve the organizations' performance (Fernandez et. al. 2004). There is a strong relationship between knowledge management practices and organization's performance (Kasim 2008). Knowledge management efforts typically focus on organizational objectives such as improved performance, competitive advantage, innovation, the sharing of lessons learned, integration and continuous improvement of the organization (Banes 2011). Improvement in process associated with organizational knowledge, which is affected by culture and strategy, will increase organization's performance (Fazli and Alishahi 2012). Knowledge management could improve organizational and managerial as well as the financial aspects of an organization (Kochhar and Mittal 2012). There is a positive relationship between the individual factors and the quality of knowledge-sharing. Personal styles are most important for the quality of knowledge sharing, followed by confidence (trust) and awareness (Ismail & Yusof 2010). The personal construct of trust has a direct and immediate effect on knowledge sharing (White and Korrapati 2007).

The development of IT helped to increase the amount of information (Eppler and Mengis 2003). The new technology in the field of communications and information designed to facilitate quick access to information (Bawden and Robinson 2008). Information and communication technology have increased access to information and increase ability to produce it (Filippov and Lastrebov 2010).

In the current complex and uncertain world, individuals and organizations face many challenges. How they deal with these challenges will determine their long-term survival (White and Korrapati 2007). Ineffective or inappropriate IT can result in incalculable losses through reduced IT team productivity and substandard organizational output (Sebastian and Korrapati 2007). The challenge of KM is to determine what information within an organization qualifies as "valuable." All information is not knowledge, and all knowledge is not valuable. The key is to find the worthwhile knowledge within a vast sea of information (Banes 2011). Finally, Knowledge may be spread throughout the organization and not be available where it might best be put to use (Albers 2012).

1.3 Study Problem and Questions

This research is an attempt to investigate the effect of organizational information on knowledge management practices. In the light of this situation, the study problem can be perceived by having detailed and scientific answers to the following questions:

1. Does Organizational Information impact Knowledge Management Practices?

This main question can be divided into the following questions:

1.1 Do Communication Channels impact Knowledge Management Practices?

1.2 Does Organizational Environment impact Knowledge Management Practices?

1.4 Study Hypotheses

Based on the above-mentioned questions about the problem statement and its elements, and according to the study model the following hypotheses can be developed:

H0.1: Organizational Information does not impact Knowledge Management Practices, at ($\alpha \leq 0.05$).

H0.1.1: Communication Channels do not impact Knowledge Management Practices, at ($\alpha \leq 0.05$).

H0.1.2: Organizational Environment does not impact Knowledge Management Practices, at ($\alpha \leq 0.05$).

1.5 Study Purpose and Objective

This study investigates the impact of organizational information on knowledge management practices. The main objective of this research is to provide sound recommendations about knowledge management practices within organizational information context by identifying and defining the main attributes of knowledge management practices, i.e. to point out critical factors of knowledge management practices and find suitable management ways in that context.

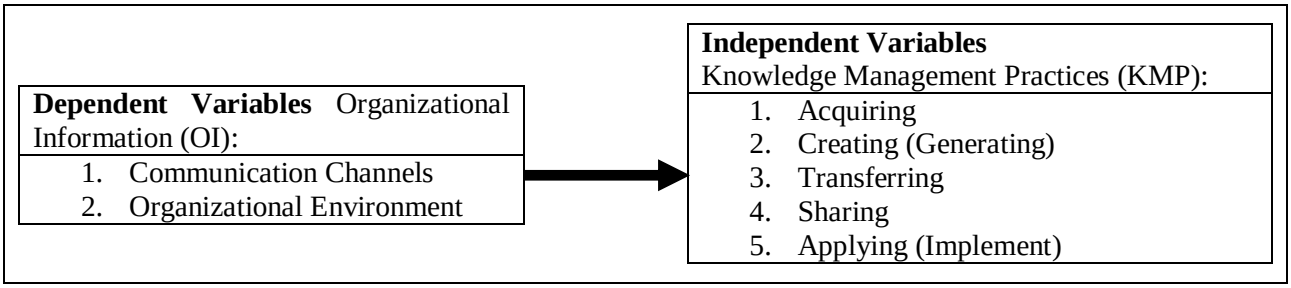
1.6 Study Importance and Scope

The current study presents the necessary components of knowledge management practices. It partially focuses on managerial norms, and partially on social norms. A better understanding of the effect of organizational information on knowledge management practices draws conclusions that can be beneficial not only for Jordanian industrial companies but also to other organizations, institutions and policy makers. The content also may be of an interest to academic studies related to the reporting and decision making concerning knowledge management practices.

1.7 Research Model

In the light of the research problem elements and hypotheses, the researchers can draw the following model:

Model (1): Study Model



1.8 Methods and Procedures

Population and Sample: At the time of study, there were about 1242 Industrial Companies listed in Amman Stock Exchange Market. The research sample is selected by random sampling method which resulted in 373 companies (30%). The researchers received 206 out of 373 (55%) responses which used for analysis.

Unit of Analysis: The survey unit of analysis is composed of all top (General Managers, General Manager Assistants, and General Manager Deputies) and middle managers (Main Section Managers Directors and Head of Departments) drawn from JICs listed in Amman Stock Exchange Market.

The Questionnaire: The main tool for actualizing a research project is the questionnaire. Initial items to measure various constructs were developed depending on prior researches. Then the questionnaire was validated through expert interviews and a panel of judges.

Independent Variables (Organizational Information): Through literature review, the researchers have identified two important independent variables that contribute to knowledge management practices: Communication Channels and Organizational Environment. Independent variables are tested through 12 questions: 6 for Communication Channels, and 6 for Organizational Environment.

Dependent variable (Knowledge Management Practices): Dependent variable of the study is related to knowledge management practices, and tested through 25 questions included: 5 questions for each component: acquiring, creating, transferring, sharing and applying knowledge.

All variables were measured by five-point Likert-type scale to tap into the individual's perceptions, ranging from value 1 (strongly disagree) to value 5 (strongly agree) used throughout the questionnaire.

Validity: To confirm content validity (construct validity): Multiple sources of data (literature, expert interviews and panel of judges) were used to develop and refine the model and measures.

Reliability Test (Cronbach's Alpha): Almost all studies mentioned that Cronbach's Alpha coefficients above 0.6 are accepted (Sekaran, 2003). Table (1) shows that the Cronbach's alpha for the study were between 0.601 and 0.847, which registered acceptable.

Table (1): Cronbach's Alpha for Research Variables

Variable	No. of Items	Alpha
Communication Channel	6	0.601
Organizational Environment	6	0.824
Knowledge Acquiring	5	0.799
Knowledge Creating	5	0.847
Knowledge Transferring	5	0.760
Knowledge Sharing	5	0.802
Knowledge Applying	5	0.830

1.9 Data analysis and discussion

1.9.1 Hypotheses Testing

Multiple Regressions

H0.1: Organizational Information does not impact Knowledge Management Practices, at ($\alpha \leq 0.05$).

Table (2) result shows that this organizational information explained 15.8 percent of the variance, where (R^2=0.158, F=38.396, Sig.=0.000). Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted, which states that the organizational information affects knowledge management practices, at ($\alpha \leq 0.05$). Beta β also supports the result above which shows that the relationship between organizational information and knowledge management practices is 41.0%, where (β=0.410, t=6.196, sig.$\leq$0.05). Also the results show that organizational information affects all knowledge management practices components where (β between 0.337 and 0.499, t between 4.670 and 6.654, sig.$\leq$0.000).

(2): Results of Multiple Regressions Analysis: Regressing Organizational Information against Knowledge Management Practices

Independent Variable	R	R^2	F	DF	Regressions Coefficient				
					Dependent	β	Stand. Error	t Calculated	Sig.
Acquiring	.318	.101	22.966	(204,1)	OI	.373	.078	4.792	.000
Creating	.339	.115	26.416	(204,1)	OI	.419	.081	5.140	.000
Transferring	.422	.178	44.278	(204,1)	OI	.499	.075	6.654	.000
Sharing	.337	.113	26.091	(204,1)	OI	.422	.083	5.108	.000
Applying	.311	.097	21.813	(204,1)	OI	.337	.072	4.670	.000
KMP	.398	.158	38.396	(204,1)	OI	.410	.066	6.196	.000

**sig. α<0.05*
***sig. α<0.01*

H0.1.1: Communication Channels do not impact Knowledge Management Practices, at ($\alpha \leq 0.05$).

The table (3) result shows that the organizational information variables together have significant effect on knowledge management practices, and explained 31.6% of the variance of knowledge management practices functions, where (R^2=0.31.6, F=46.863, Sig.=0.000). The results of Beta shows that the communication channel has strong relationship with knowledge management practices components, where (β=0.617, t=9.170, sig$\leq$0.05). Therefore, the null hypothesis is rejected and the alternative hypothesis is accepted, which states that the communication channel affects knowledge management practices, at ($\alpha \leq 0.05$). At the same time, results show that communication channel affects each and every knowledge management practices component, where (β between 0.534 and 0.655, t between 7.011 and 7.835, sig$\leq$0.000).

H0.1.2: Organizational Environment does not impact Knowledge Management Practices, at ($\alpha \leq 0.05$).

Against our expectations, table (3) shows that organizational environment does not show significant effect on knowledge management practices components, where (β=0.051, t=1.066, sig>0.05). Therefore, the null hypothesis is accepted, which states that the organizational environment does not affect knowledge management practices, at ($\alpha \leq 0.05$). At the same time, all organizational environment does not show any significant effect on any knowledge management practices component, where (β between 0.024 and 0.090, t between 0.421 and 1.568, sig>0.05).

Table (3): Results of Multiple Regressions Analysis: Regressing Organizational Information Variables against Knowledge Management Practices

Independent Variable	R	R^2	F	DF	Sig.	Regressions Coefficient				
						Dependent	β	Stand. Error	t Calculated	Sig.
Acquiring	.493	.243	32.556	(203,2)	.000	Communication Channel	.631**	.081	7.835	.000
						Organization Environment	.090	.057	1.568	.118
Creating	.492	.242	32.456	(203,2)	.000	Communication Channel	.655	.085	7.701	.000
						Organization Environment	.067	.061	1.114	.267
Transferring	.521	.271	37.776	(203,2)	.000	Communication Channel	.612	.080	7.689	.000
						Organization Environment	.024	.057	.421	.674
Sharing	.485	.235	31.232	(203,2)	.000	Communication Channel	.652	.087	7.534	.000
						Organization Environment	.063	.062	1.024	.307
Applying	.457	.209	26.741	(203,2)	.000	Communication Channel	.534	.076	7.011	.000
						Organization Environment	.059	.054	1.083	.280
KMP	.562	.316	46.863	(203,2)	.000	Communication Channel	.617	.067	9.170	.000
						Organization Environment	.051	.048	1.066	.288

**sig. α<0.05*
***sig. α<0.01*

1.10 Conclusions

1. The study results demonstrated that there is a direct and significant effect of organizational information on knowledge management practices and functions. The current results are also supported by Dubosson & Fragniere (2009) and Becker (2009), both studies showed that the organizational information have high impact the knowledge management practices and functions.
2. Results showed that almost all respondents agreed on the importance of communication channel and its effect on knowledge management practices in the Jordanian industrial companies. While the results of the organizational environment analysis indicated that there is low effect of organizational environment on knowledge management practices. The current study result is consistent with Manovas (2004) study results regarding knowledge transfer and learning & sharing cultures, as well as, the incentive system and infrastructure. Results also showed that communication channels were more important than organization environment. It seems that the individual's roles are not clear and precisely defined in these organizations. This study goes in line with Becker (2009) results, where he concluded that organizational structure may be the main cause of information burden. Raoufi (2003) also agreed with the current study results regarding the organizational factors, and stated that the leadership has a direct impact on information burden, especially on employees who works in knowledge field.

1.11 Recommendations:

In the light of research results, the following recommendations can be suggested:

1. Re-schedule the work processes to allow the employees to complete their work without causing pressure on them, which may lead to negative impact on their concentration and cause confusion which may reflect on their achievements and reduce their performance.
2. Organizations have to develop their organizational environment in order to achieve most effective communication systems, re-structuring their systems to reduce organizational burden in an attempt to achieve efficiency.
3. Organizations should ensure that the employees are aware about the best methods for gaining and applying the gained knowledge. This can be reinforced by training the people on how to gain, use and apply the gained knowledge to achieve specific goals.

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