The Effect of Knowledge Management Context on Knowledge Management Practices: an Empirical Investigation

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Abstract: This paper presents recent research findings on the effects of organizational knowledge management (KM) context on KM practices. Data were collected at a large Canadian law firm via a Web-based survey instrument from over 400 participants comprising professional and support staff working in various office locations. The purpose of the study was to gain insight on the antecedents of knowledge management behaviors in organizations. A theoretical model explicating the impact of an organization's KM environment on both organizational and individual KM behaviors was developed and tested using structural equation modeling techniques. The moderating effects of age, biological sex, job category, and years spent in the organization were also examined. Results indicate that an organization's knowledge management environment impacts on both organizational as well as personal knowledge management behaviors. Furthermore, we show that organizational KM behavior also influences personal KM behavior, thus acting as a mediator between the overarching organizational knowledge management policies and practices and the employees' individual practices. Based on this empirical evidence, recommendations are suggested for organizations wishing to institutionalize knowledge management initiatives in their firms.

Keywords: Knowledge management behaviour, knowledge management practices, knowledge management context, knowledge management environment, knowledge sharing, corporate strategy.

1. Introduction

This paper explores the relationship between knowledge management context and knowledge management practices in organizations – a broad research area indeed. Over the brief history of the knowledge management field, there have been many interpretations and descriptions of the theoretical constructs and variables that constitute organizational knowledge management context and practices. Surprisingly little empirical analysis on the effects of one on the other exists. This paper is an attempt to bridge that void.

For this paper, knowledge management is defined to be the systematic, effective management and utilization of an organization's knowledge resources (i.e., ones that contain or embody knowledge) and encompasses the creation, storage, arrangement, retrieval, and distribution of an organization's knowledge (Saffady, 1998). This includes the "methods and tools for capturing, storing, organizing, and making accessible knowledge and expertise within and across communities" (Mack, Ravin and Byrd, 2001, p. 925). It also includes the active management and support of human expertise (Blair, 2002). In this sense, knowledge management deals equally with the acquisition, handling, and use of explicit knowledge as well as the management of tacit knowledge in terms of improving people's capacity to communicate and collaborate with one another (Al-Hawamdeh, 2002).

There are a variety of ways in which organizations go about doing this. For example, one field investigation of 12 private and public sector large-sized organizations identifies eight distinct methodologies corporations undertake to manage both explicit and tacit types of knowledge: 1) communities of practice; 2) question and answer forums; 3) knowledge mapping; 4) expert databases; 5) knowledge databases; 6) news information alerts; 7) training and education; and 8) virtual collaboration (Bouthillier and Shearer, 2002). Similarly, Bhatt (2002) points out four management strategies organizations use to promote KM within the firm: 1) the empowerment of employees; 2) the motivation and nurturing of individual expertise; 3) the fostering of self-organized teams and promotion of group

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social interaction; and 4) the storage and codification of rules and procedures in simple formats so that employees can easily access and understand these rules and processes.

By adopting such strategies, organizations are recognizing the need to facilitate and promote the creation, sharing, and use of information as part of their KM initiatives and offerings. In this sense, companies are attempting to create a context or environment that nurtures behaviors at both organizational and personal levels. The degree to which this context influences and shapes KM practices, and more importantly how the context does so, is unknown. Hence, the goal of this paper is to explore this relationship between organizational knowledge context and practices in more detail. Insight into this area may provide useful discourse, conceptually and practically speaking, in identifying the building blocks of new KM theories and supporting the development of KM initiatives in organizations.

2. Knowledge management context and practices

Theory from the information sciences and knowledge management literatures were used as background for the formation of this paper's research model, namely Information Orientation and an interpretation of several theoretical models dealing with organizational information environments. This literature base was chosen since the writings deal holistically with organizational information contexts and describe how such environments can enable and foster strategic information use and knowledge work in corporations.

The following sub-sections briefly describe this background. This is followed by a description of the paper's research model, which draws upon constructs identified in the afore-mentioned literature base and identifies specific hypotheses for investigation.

2.1 Information orientation

Originally coined by Donald Marchand, William Kettinger and John Rollins (Marchand et al., 2001a, 2001b), the term Information Orientation (IO) has been used to describe an organization's preparedness to use information for competitive advantage by virtue of its beliefs and values, and its information management and technology practices. It measures the extent to which business managers perceive their organizations to possess the capabilities associated with effective information use to improve business performance.

In their research, Marchand et al. provide empirical evidence to show that an organization's regard and appreciation of its information, and the ways information is used at personal and corporate levels, are critical to gaining and sustaining competitive advantage (Marchand et al., 2001a). They emphasize that information management is more than a matter of selecting and deploying various technologies and systems – it is a process which aims is to provide the individuals involved in critical business processes, the right information at the right time for effective decision making. Furthermore, the right information may be structured and factual, or unstructured and narrative, and to utilize information to positively affect business performance, an organization needs to have the right mix of i) information technology practices, ii) information management practices, and iii) information behaviors and values.

Information technology practices (ITP) refer to the capability of a company to effectively manage its technology infrastructure in support of operational decision-making and communication processes. Effectual ITP oblige managers to link the overall corporate strategy to IT strategy in order to provide distinctive competencies that support innovation and management decision needs.

Information management practices (IMP) pertain to an organization's capability to manage information effectively over its life cycle, including sensing, collecting, organizing, processing and maintaining information. In this regard, effective IMP allow business managers to explicitly set up processes, train employees, and take personal responsibility for the management of information in order to reduce information overload, improve the quality of information available to stakeholders, and enhance the decision-making capability of the organization. Information behaviours and values (IBV) symbolize an organization's capability to instill and promote behaviors and values in its people for the effective use of information. For this, managers need to encourage integrity, formality, control, transparency, and sharing, while promoting proactive information use in their companies and removing barriers to information flow.

Together, the three components of ITP, IMP, and IBV provide an effective basis for information use within organizations. Marchand et al. expound the need for strong linkages between these three components by referring to the information management process as a recursive spiral. On the one hand, good information usage behaviors and values drive better information definition and management within the firm, and on the other, better information practices improve the

organization's overall capability to use technology to support decision making and problem solving. The successful cycle in turn reinforces better information usage behaviors and values.

2.2 Organizational information environments

The Information Orientation model shares many similarities with the idea of organizational information environments. Detlor (2004) provides a detailed summary of the literature on organizational information environments, namely by reviewing key works on information ecologies (Davenport & Prusak, 1997; Nardi & O'Day, 1999), information processing contexts (Huber & Daft, 1987); and information use environments (Katzer & Fletcher, 1992; Rosenbaum, 1993, 1996, 1999, 2000; Taylor, 1986; 1991).

From this review, Detlor concludes that a firm's information environment comprises several entities. The first is information culture, which refers to the degree to which information is readily shared, valued, and filtered across the company. The second are information systems development processes, which are the procedures in place in a firm, which dictate how information systems are developed and maintained. The third is information politics, which refers to the human struggle over the management of information. Moreover, Detlor points out how a firm's information environment – in terms of its information culture, systems development processes and politics – constrain and shape the degree to which people in organizations can access, create, share, find, browse, create and use information. That is, an organization's information environment has a direct effect on both employee and organizational information behavior. Not only does Detlor provide theoretical justification for this, he also provides empirical evidence of the effect of the organizational information environment on information behavior based on his and other scholars' case study investigations. For example, a lack of information sharing, a high degree of information overload, or the existence of strong controls over the dissemination and distribution of information in the firm, has been shown to deter or hamper knowledge work in organizations at both personal and corporate levels.

Detlor also describes how individual demographics (such as age and gender) and social roles (such as job position and years spent in the organization) can influence how people go about creating, finding, seeking, distributing and using information in the firm. These variables seem to mediate the effect of the information environment on information behavior.

2.3 The paper's research model

Using the above literature base as a starting point, one can identify common themes or constructs. The first is the existence of a Knowledge Management Environment (KME), which symbolizes the culture and commitment within the organization to implement and institutionalize effective information and knowledge sharing processes, practices and technologies. KME is analogous to Marchand et al.'s ITP and IMP constructs, and the organizational information environment.

The second is the existence of information behaviors. The Information Orientation model clearly identifies an information behavior construct (IBV), which is separate and distinct from the contextual constructs of an organization's technology and information management environments. Similarly, Detlor in his review of information environments in organisations posits the human action of information behavior outside and distinct from the organizational information environment in which knowledge work is performed. Both discuss, in varying ways, the interplay between context and behavior: Marchand et al. discuss how contextual constructs of ITP and IMP interact with IBV to facilitate effective information use in the company, while Detlor provides evidence of the strong effect of an organization's information environment on employee information behavior, and illustrates how this relationship impacts the extent to which an organization can successfully go about creating, distributing, and using knowledge across the firm.

Interestingly, both Marchand et al. and Detlor in their writings describe, to varying extents, a distinction between organizational and personal information behaviors. Marchand et al. recognizes how information can be used in different ways at personal and corporate levels; Detlor describes how the organizational information environments can shape information behaviors on a individual or organization-wide basis. Based on this, organizational and personal information behaviors can be viewed as two separate constructs. Organizational information behaviors (OIB) would represent the information and knowledge sharing practices at the corporate level, while personal information behaviors (PIB) would concern an individual's own actions in carrying out information and knowledge sharing practices. Based on this, one would posit that the KME influences both OIB and PIB:

H1. A firm's knowledge management environment impacts organizational information management behaviours.

H2. A firm's knowledge management environment impacts personal information management behaviours.

Furthermore, there is likely a relationship or close tie between organizational and personal information behaviors. For example, the theory of planned behavior (TPB) (Ajzen 1985; Ajzen 1991), an extension of the theory of reasoned action (TRA) (Ajzen and Fishbein 1980; Fishbein and Ajzen 1975), suggests that subjective norms surrounding a behavior (such as an employee's perceptions regarding the opinions of others in the firm who are important to him/her regarding performing a target behavior) influence an individual's intent to perform that behavior. In this sense, one would posit that organizational information behaviors may influence the extent to which an individual goes about his or her own personal information behaviors:

H3. Organizational information behaviours impact personal information behaviors.

Based on this review, this paper presents a research model that shows the interplay between the three constructs of the firm's knowledge management environment, organizational information behaviors, and personal information behaviors (see Figure 1 below).

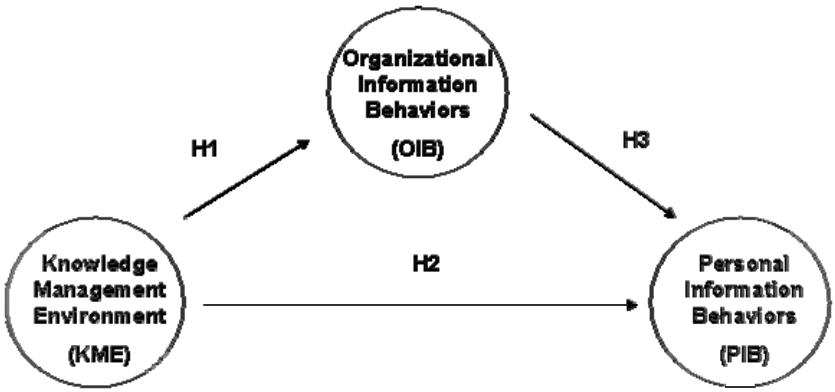

Figure 1: The study's research model

Furthermore, as Detlor suggests, there may be certain demographic variables about employees that impact the relationship between a firm's KM environment and employee information behavior at both organizational and individual levels. As such, it would be interesting to ask whether certain employee demographics (such as age, biological sex, job category, and years spent in the company) affect the relationships between a firm's knowledge management environment and organizational and personal information behaviors.

3. Methodology

3.1 The case study site

To test the research model, a Web-based survey was administered to a large, Canadian law firm that employs over 2,000 people in offices spanning the nation. Participants comprised both professionals (e.g., lawyers) and non-professionals (e.g., support staff). In order to manage the knowledge of a diverse and geographically separated group of people, the organization recently introduced a firm-wide knowledge management strategy to allow people to better share their knowledge and experience. Central to this initiative is a knowledge portal specifically designed for law professionals to exchange knowledge and organizational learning. As such, this organization was open to participating in this research investigation as a means of getting a handle on how well their knowledge management initiatives were working out.

A service organization, such as a law firm, is a viable organization to study knowledge and information context and behaviors since these types of firms typically dwell upon the innovative and creative competences of their employees and are also subject to more rapid and radical changes in the business environment. For examples, several researchers have published case studies of KM practices in a variety of service-based organizations in the banking, insurance, legal and consulting sectors. According to Ulrich and Kerr (1995), such organizations today need to continuously assess their culture, capability and work processes in order to effectively respond to ever changing business conditions.

3.2 The survey instrument

The survey instrument was administered in the two official languages of Canada (English and French) and consisted of two parts. The first presented questions pertaining to the organization's information management practices, information behavior and values, and information uses. These questions were adapted from the instrument used by Statistics Canada in its survey of Knowledge Management Practices in 2001, as well as the instrument developed by Marchand et al. (2001a, 2001b) to measure information orientation, behavior and values. The second solicited demographic information such as age, biological sex, and years spent in the organization, and job category. The survey was pre-tested both by members of the research team and participants in the case study site itself.

Table 1 below identifies the questions asked on the survey that pertained to the constructs outlined in the paper's research model. Responses to these questions were on a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). A single negatively-worded reversed coded question was utilized to create a cognitive 'speed bump' (Podsakoff et al. 2003). This approach is commonly used in survey design (Hinkin 1995). The rationale is that this item requires respondents to engage in more controlled, rather than automatic, cognitive processing (Podsakoff et al. 2003). This allows partially mitigating the effect of uni-directional wording (Singh 2004) and potentially reduces common method bias in self-reports (Podsakoff et al. 1986).

4. Results

The survey instrument was administered to all employees in the organization. In the end, 405 usable responses were obtained. The English-based questionnaire was utilized by 92% of the respondents and the French-based questionnaire was used by the rest (i.e. 8%). Multivariate Analysis of Variance (MANOVA) (Pedhazur et al. 1991; Tacq 1997) revealed no significant differences between these groups (Pillai's Trace of 0.049, p-value < 0.20). Thus, the remainder of the analysis is conducted on the merged dataset of 405 responses.

Table 1: Questionnaire Items pertaining to the research model's constructs

Construct	Item	Statement
KME	KME1	My organization has a culture intended to promote knowledge and information sharing.
	KME2	Knowledge and information in my organization is available and organized to make it easy to find what I need.
	KME3	Information about good work practices, lessons learned, and knowledgeable persons is easy to find in my organization.
	KME4	My organization makes use of information technology to facilitate knowledge and information sharing.
OIB	OIB1	The people I work with regularly share information on errors or failures openly.
	OIB2	The people I work with regularly use information on failures or errors to address problems constructively.
	OIB3 (Reversed)	Among the people I work with regularly, it is normal for individuals to keep information to themselves.
PIB	PIB1	I often exchange information with the people with whom I work regularly.
	PIB2	I often exchange information with people outside of my regular work unit but within my organization.
	PIB3	I often exchange information with citizens, customers, or clients outside my organization.
	PIB4	I often exchange information with partner organizations.

The analysis revealed several demographic characteristics. First, 77% and 23% of the subjects were female and male respectively. In other words, the majority of respondents were female. Second, the average age of the surveyed employees was 35-44 years old. Third, the

sample comprised 32% professionals and 68% administrative or support staff. And fourth, respondents were employed by the surveyed organization for periods ranging from 1 year to over 35 years, with a median employment time of 4 to 5 years. These demographic variables were included as moderators in the structural model.

4.1 The measurement model

The two-step approach suggested by Anderson and Gerbing (1988) was utilized for model assessment. Accordingly, an examination of the measurement model was conducted before embarking on testing the structural model. Both the measurement and structural models were estimated by using the structural equation modeling facilities of PLS-Graph Version 03.00 (Chin 1998; Chin 2001). The PLS approach was chosen since it fits small-sample exploratory research (Gefen et al. 2000), and it does not require meeting the multivariate normality assumptions posed by other structural equation modeling techniques (Thomas et al. 2005). As such, Table 2 offers statistics of the model's set of measurement items. Please note that all constructs were operationalized with reflective indicators (Bollen 2002).

As one can see, almost all factor loadings exceeded the threshold value of 0.7. Only one item (PIB1) obtained loading slightly below this threshold. Nevertheless, this item was retained for two reasons. First, retaining the item maintains the content validity of the construct; and second, the deviation from the threshold is negligible. The psychometric robustness of the measurement items is further supported by an assessment of the item-to-total correlation values. These have exceeded the recommended cut-off point of 0.35 with relatively low residual variances. Overall, it is concluded that in general, items share more than 50% of the variance with the latent variable they pertain to, and that they have reasonably good psychometric properties.

In order to test for discriminate and convergent validities, a table of loadings and cross-loadings was constructed (see Table 3). A visual inspection of the table demonstrates that items load highly on their respective construct, and do not load on other constructs. Thus, there is strong confidence in the discriminate and convergent validity of the constructs.

Table 2: Measurement Items' statistics

Item	Mean	Std. Dev	Factor Loading	Residual Variance	Item-total correlations
KME1	4.1120	1.0290	0.7920	0.3747	0.6400
KME2	3.5396	1.1187	0.8310	0.3083	0.7210
KME3	3.3232	1.1436	0.8300	0.3095	0.6580
KME4	4.0025	1.0430	0.8030	0.3560	0.6690
OIB1	3.3032	1.2104	0.8590	0.2531	0.6880
OIB2	3.4986	1.1598	0.8610	0.2568	0.6770
OIB3	5.2941	1.3472	0.7510	0.4441	0.5010
PIB1	4.4883	0.8371	0.6790	0.5380	0.3930
PIB2	3.6084	1.2100	0.7210	0.4813	0.5230
PIB3	2.9633	1.3013	0.7790	0.3907	0.5520
PIB4	2.5921	1.2537	0.7430	0.4499	0.5940
Sex	0.2233	0.4172	1.0000	0.0000	1.0000
Job Category	0.3793	0.4860	1.0000	0.0000	1.0000
Sex*Job Category	0.1752	0.3807	1.0000	0.0000	1.0000
Age Group	2.9932	1.0785	1.0000	0.0000	1.0000
Years In Organization	3.1693	1.6681	1.0000	0.1581	1.0000

Further examination of discriminate validity was conducted by comparing the average variance extracted (AVE) from each constructs with its communal variances shared with other constructs

(Fornell et al. 1981). These measures are reported below in Table 4. The inter-construct correlations are outlined underneath the diagonal and the square roots of the AVEs are given in the diagonal. A visual inspection of Table 4 demonstrates that the AVE for all constructs is higher than their shared variances. Thus, confidence in the discriminate validity of the model's constructs is strengthened.

Next, construct statistics were calculated and examined. These measures are presented in Table 5. First, the constructs' reliability was assessed using Cronbach's alpha (Cronbach 1951). The results demonstrate acceptable levels of homogeneity as all Cronbach alpha values were above the commonly used threshold of 0.70 (Pedhazur et al. 1991). Second, Fornell and Larcker's (1981) measures of internal consistency and convergent validity of all constructs were greater than 0.7 and 0.5 respectively.

Overall, the above-mentioned analyses demonstrate that there is some confidence in the psychometric appropriateness of the measurement items and latent variables. Thus, following the guidelines of Anderson and Gerbing (1988), the next sub-section outlines the examination of the structural model.

Table 3: Matrix of loadings and cross-loadings

	KME	PIB	OIB	Age	Sex	Job Category	Sex*Job Category	Years in Org.
KME1	0.797	0.161	0.341	-0.052	-0.062	-0.103	-0.041	-0.045
KME2	0.832	0.151	0.267	0.000	-0.121	-0.089	-0.097	-0.080
KME3	0.838	0.175	0.398	0.008	-0.128	-0.121	-0.067	-0.075
KME4	0.806	0.209	0.297	-0.002	-0.070	-0.067	-0.047	-0.020
PIB1	0.259	0.680	0.342	0.020	0.027	0.096	0.058	-0.027
PIB2	0.089	0.720	0.116	0.194	0.085	0.139	0.082	0.152
PIB3	0.121	0.782	0.055	0.227	0.213	0.310	0.282	0.129
PIB4	0.142	0.758	0.132	0.163	0.082	0.129	0.079	0.176
OIB1	0.323	0.151	0.871	-0.018	-0.132	-0.125	-0.132	-0.166
OIB2	0.363	0.241	0.879	-0.050	-0.032	-0.074	-0.049	-0.118
OIB3	0.343	0.165	0.757	-0.087	-0.017	0.101	0.018	-0.057
Age	-0.014	0.209	-0.061	1.000	0.009	0.005	-0.002	0.534
Sex	-0.119	0.150	-0.072	0.009	1.000	0.478	0.884	0.152
JobCat	-0.120	0.243	-0.041	0.005	0.478	1.000	0.602	0.235
SexJobCat	-0.077	0.187	-0.065	-0.002	0.884	0.602	1.000	0.202
YearsInOrg	-0.068	0.140	-0.135	0.533	0.152	0.235	0.202	1.000

Table 4: Average variance extracted and inter-construct correlations

	KME	**PIB**	**OIB**
KME	0.814		
PIB	0.212	0.826	
OIB	0.406	0.220	0.731

Table 5: Construct statistics

	Arithmetic Mean	Cronbach Alpha	Internal Consistency	Convergent Validity
KME	3.7431	0.8390	0.8872	0.6629
PIB	3.4300	0.7210	0.8211	0.5350
OIB	4.0174	0.7780	0.8649	0.6817

4.2 The structural model

Two hundred re-samples were used in a bootstrapping procedure (Cramer et al. 1988) to derive t-statistics for the structural paths. Chin recommends this number of re-samples for reasonable standard error estimates (Chin 2001). The structural model and the p-values are presented in Figure 2. Please note that while the model includes five control variables (sex, job category, the interaction of job category and sex, age, and years with the organization), for simplification, the figure portrays only the main relationships. The path coefficients, the t-statistics and the corresponding p-values for the control variables (in brackets) are presented in Table 6.

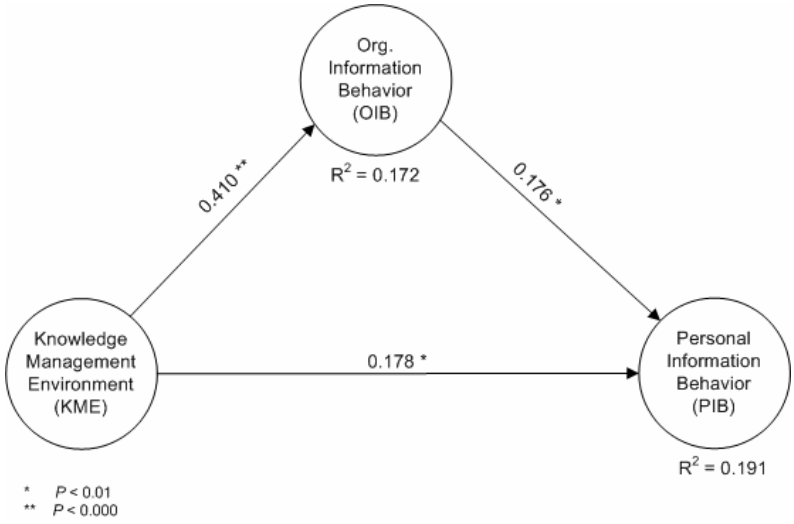

Figure 2: The structural model

Table 6: Effects of control variables and their levels of significance

	Control variables				
	Sex	Job Category	Sex * Job category	Age	Years In Organization
PIB	0.0270 (0.1952)	0.2290 (3.4725 ****)	0.0540 (0.3755)	0.229 (3.3385****)	-0.0150 (0.2043)
OIB	0.0320 (0.3422)	0.0660 (0.9552)	-0.0790 (0.7071)	0.0040 (0.0618)	-0.1140 (1.8069 *)
KME	-0.2730 (2.5716 **)	-0.1280 (1.6365)	0.2530 (1.9579 **)	0.0220 (0.2903)	-0.0600 (0.8593)

The main conclusion drawn from the reported structural model analysis as depicted in Figure 2 is that all three hypotheses (H1, H2, & H3) are supported with high degrees of confidence. Thus, the knowledge management environment influences indeed both organizational and personal knowledge management behaviors, and personal information behaviors are influenced by organization information behaviors. These results are consistent with the theoretical background used to inform the study's research model, namely theory pertaining to Information Orientation and organizational information environments.

In order to approximate the predictive power of the two constructs that influence individual information behaviors, their effect sizes were calculated by formula (1). This formula was proposed by Chin (1998) as a means for predictive power estimations in PLS analysis. The formula includes the following variables: f2 is the effect size of an independent construct; R2included is the R-square value of a dependent construct when the tested independent construct is included in the model, and R2excluded is the R-square value of a dependent construct when the tested independent construct is excluded from the model.

$$f^2 = \frac{R^2_{included} - R^2_{excluded}}{1 - R^2_{included}} \quad (1)$$

As such, R-square values of the PIB construct were documented after removing one independent construct at a time. A calculation of the predictive power values reveals that the predictive power of the KME and POB construct are 0.022 and 0.031 correspondingly. These values demonstrate low to medium effect sizes according to the guidelines given by Cohen (1988). This indicates that there is no single construct that contributes significantly to the predictive power of the model. Rather, it is the combination of the KME and OIB constructs that explain almost 20% of the variance in individual information behaviors. Thus, future research may include more variables in order to better explain information sharing behaviors.

With respect to the effect of the moderating variables, several findings were obtained. First, although the main effect of sex on KME is significant, it cannot be analyzed, as the interaction term of sex and job category is significant as well (Fox 1997, p.148). As such, only the latter is interpretable. Given the coding scheme used (i.e. male=1, professional=1) and the fact that this path coefficient is positive, it is concluded that professional males perceive the knowledge management environment to be stronger than what others perceive it to be.

Second, job category was found to have a significant positive effect on personal information behaviors. Thus, professionals in general (both males and females) tend to share more information with colleagues and customers, than support and administrative staff do.

Third, similar effect was obtained for age. As such, it is concluded that older personnel are more apt to share information with others than younger personnel do. Finally, a somewhat significant effect of years in the organization on perceived organizational information behaviors was observed. Given the negative corresponding path coefficient, it is concluded that the more time an employee spends with an organization, the lower his or her perception of information sharing behaviors of others.

5. Conclusion

In this paper, we have investigated and discussed the effects of organizational knowledge context on corporate as well as personal information and knowledge practices and behaviors. Towards that end, we have proposed and validated an analytical research model based on constructs derived from the information orientation and the organizational information environments models. The results of our survey illustrate that both organizational and personal information behaviors are influenced by the corporate wide knowledge management environment comprising the practices, policies and processes institutionalized and the technologies implemented for KM initiatives. Subsequently, personal information behaviors are also influenced by organizational information behaviors suggesting that an individual's own behavior towards information and knowledge sharing is influenced by his/her perceptions of others commitments and tendencies towards knowledge sharing. Furthermore, our research shows that specific career based demographic variables also impact the relationship between a firm's KM environment and information behaviors at both organizational and individual levels. Specifically, males, older employees, and those with professional designations (as opposed to support roles) have a positive perception of and attitude towards the corporate KM context and organizational level KM practices.

The findings in this paper have both practical as well as theoretical implications. From a practical standpoint, the results of our survey compel businesses, especially those that regard themselves as "knowledge intensive" organizations to acknowledge, explore and positively influence the people-factors that are critical to task performance and organizational success through various material as well as relational means. Firstly, as an overarching approach, organizations need to promote knowledge sharing processes among employees through the establishment of formal policies and procedures and the implementation of requisite technology infrastructures. As shown in our research results, such formalized practices not

only lead to positive perceptions about the knowledge environment and organizational information behaviors but also enhance personal information behaviors. Additionally, the organizational information behaviors construct emphasizes the importance of pooled expertise, relationships, and alliances to the progress of KM initiatives, hence suggesting that in their efforts to further harness the knowledge based capabilities of their human capital, managers should undertake the development of various incentives for their employees to work collaboratively and share their knowledge with one another.

At a theoretical level, our study provides empirical evidence to support the relationship between the culture and context of knowledge management practices in the organization and the information and knowledge sharing behaviors of its employees. Hence the research model bears out important technological, psychological and sociological antecedents to the effectiveness and success of knowledge management initiatives within corporations. In addition to being excellent predictors, our model shows that these factors are also inexorably intertwined, and future research can help extend the findings of our model by considering other institutional settings and business-specific conditions in the organizational KM context.

References

Al-Hawamdeh, S. (2002). Knowledge management: Rethinking information management and facing the challenge of managing tacit knowledge. *Information Research, 8*(1), Retrieved from http://InformationR.net/ir/8-1/paper143.html.

Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423.

Bhatt, G. D. (2002). Management strategies for individual knowledge and organizational knowledge. *Journal of Knowledge Management, 6*(1), 31-39.

Blair, D. C. (2002). Knowledge management: Hype, hope, or help? *Journal of the American Society for Information Science and Technology, 53*(12), 1019-1028.

Bollen, K. A. (2002). Latent variables in psychology and the social sciences. *Annual Review of Psychology, 53*, 605-634.

Bouthillier, F., & Shearer, K. (2002). Understanding knowledge management and information management: The need for an empirical perspective. *Information Research, 8*(1), Retrieved from http://InformationR.net/ir/8-1/paper141.html.

Chin, W. W. (1998). The Partial Least Squares approach for Structural Equation Modeling. In A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295-336). Mahwa, N.J.: Lawrence Erlbaum Associates.

Chin, W. W. (2001). *PLS-Graph User's Guide, Version 3.0*: Soft Modeling Inc.

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2 ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cramer, R. D., Bunce, J. D., Patterson, D. E., & Frank, I. E. (1988). Cross-Validation, Bootstrapping, and Partial Least-Squares Compared with Multiple-Regression in Conventional Qsar Studies. *Quantitative Structure-Activity Relationships, 7*(1), 18-25.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Davenport, T. H., & Prusak, L. (1997). *Information Ecology: Mastering the Information and Knowledge Environment*. New York, NY: Oxford University Press.

Davenport, T. H., & Prusak, L. (1998). *How Organizations Manage What They Know*. Boston, MA: Harvard Business School Press.

Detlor, B. (2004). *Towards knowledge portals: From human issues to intelligent agents*. Dordrecht, The Netherlands: Kluwer Academic Publishers.

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.

Fox, J. (1997). *Applied Regression Analysis, Linear Models, and Related Methods*. Thousand Oaks, CA, USA: Sage Publications.

Gefen, D., Straub, D. W., & Boudreau, M.-C. (2000). Structural Equation Modeling and Regression: Guidelines for research practice. *Communications of the Association of Information Systems, 4*(7), 1-77.

Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management, 21*(5), 967-988.

Huber, G. P., & Daft, R. L. (1987). The information environments of organizations. In F. Jablin & L. L. Putnam (Eds.), *Handbook of organizational communications* (pp. 130-164). Newbury Park, CA: Sage Publications.

Katzer, J., & Fletcher, P. T. (1992). The information environment of managers. In M. E. Williams (Ed.), *Annual Review of Information Science and Technology (ARIST)* (Vol. 27, pp. 227-263). Medford, New Jersey: Learned Information, Inc.

Mack, R., Ravin, Y., & Byrd, R. J. (2001). Knowledge portals and the emerging digital knowledge workplace. *IBM Systems Journal, 40*(4), 925-955.

Marchand, D., Kettinger, W., & Rollins, J. (2001a). *Information orientation: The link to business performance*. New York, NY: Oxford University Press.

Marchand, D., Kettinger, W., & Rollins, J. (2001b). *Making the Invisible Visible: How Companies Win with the Right Information, People & IT*. New York, NY: John Wiley & Sons.

Nardi, B. A., & O'Day, V. L. (1999). *Information Ecologies: Using Technology with Heart*. Cambridge, MA: MIT Press.

Pedhazur, E. J., & Pedhazur Schmelkin, L. (1991). *Measurement, design and analysis - An integrated approach*. Hillsdale, New Jersey, USA: Lawrence Erlbaum Associates.

Podsakoff, P. M., & Organ, D. W. (1986). Self-report in Organizational Research: Problems and prospects. *Journal of Management, 12*(4), 531-544.

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903.

Rosenbaum, H. (1993). Information use environments and structuration: Towards an integration of Taylor and Giddens. In S. Bonzi (Ed.), *Proceedings of the 56th Annual Meeting of the American Society for Information Science, Columbus, OH* (Vol. 30, pp. 235-245). Medford, NJ: Learned Information.

Rosenbaum, H. (1996). *Managers and information in organizations: Towards a structurational concept of the information use environment of managers.* Unpublished Ph.D. dissertation, Syracuse University, Syracuse, New York.

Rosenbaum, H. (1999). Towards a theory of the digital information environment. In L. Woods (Ed.), *Proceedings of the 62nd Annual Meeting of the American Society for Information Science* (Vol. 36, pp. 705-712).

Rosenbaum, H. (2000). The information environment of electronic commerce: Information imperatives of the firm. *Journal of Information Science, 26*(3), 161-171.

Saffady, W. (1998). *Knowledge management: A manager's briefing*. Prairie Village, KS: ARMA International.

Singh, J. (2004). Tackling measurement problems with Item Response Theory: Principles, characteristics, and assessment, with an illustrative example. *Journal of Business Research, 57*(2), 184-208.

Tacq, J. (1997). *Multivariate analysis techniques in social science research. From problem to analysis* (1st ed.). London, UK: SAGE Publications Ltd.

Taylor, R. S. (1986). *Value-added processes in information systems*. Norwood, New Jersey: Ablex Publishing.

Taylor, R. S. (1991). Information use environments. In B. Dervin & M. J. Voigt (Eds.), *Progress in Communication Sciences* (Vol. 10, pp. 217-255). Norwood, New Jersey: Ablex Publishing.

Thomas, R. D., Lu, I. R. R., & Cedzynski, M. (2005). *Partial Least Squares: A critical review and a potential alternative.* Proceedings of the Administrative Sciences Association of Canada (ASAC) Conference, Toronto, Ontario, Canada.

Ulrich, D., & Kerr, S. (1995). Creating the Boundaryless Organization: The Radical Reconstruction of Organization. *Planning Review, Sept-Oct 1995*, 41-45.

