EMPIRICAL EXAMINATION OF KNOWLEDGE SHARING AS COMMUNICATION IN AN ACADEMIC SETTING

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Abstract

This study investigated the relationships between communication practices and Knowledge Sharing process (KS) under the positivist lens. The samples were 209 teaching and non-teaching personnel from a private Catholic academic institution in the Philippines. The respondents completed a survey questionnaire using De Nobile and McCormick's (2008) 66-item *Organizational Communication Questionnaire* and van den Hooff's & De Ridder's (2004) 10-item *scales on Knowledge Sharing. Exploratory Factor Analysis* was used to examine the underlying factor structure of a set of observable communication practices in the academe. This resulted to four factor loadings which led to the formulation of 4 hypotheses. Pearson correlation with two-tailed tests of significance was used. Multiple regression analyses identified communication factors that were predictors of KS.Based on the results of the factor analysis, four communication dimensions came out strongly and were labeled as Downward Supportive Communication, Upward Supportive Communication, Horizontal Supportive Communication, and Communication Load.

These results were further subjected to cross analysis, correlation and regression analyses which confirmed that the among the four communication dimensions, horizontal and upward supportive communications were statistically positively related to KS and were predictors of KS. The structural dimension of social capital which refers to the climate factors (Chay, 2004), relational dimension of trust and reciprocity and leader-member exchange theory explain the prevalence of supportive communication in the setting. The results suggest that upward, horizontal and downward supportive communication are the pervading communication dimensions present in

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the academe. An unexpected relationship was noted on Communication Load and KS results of the study. Issues of being "overload" proved not to be a concern among respondents of the study and was suspected to be due to impression management, communication capacity and proficiency and organizational citizenship of the personnel. Implications for strategic and leadership management and research were forwarded as recommendations.

Keywords : Organizational Communication, Knowledge Sharing, Factor Analysis, Knowledge Donating, Knowledge Collecting

1 Introduction

Today's globalized world has challenged every organization to keep up to be relevant and innovative. In order to sustain its existence and to stay active and make a difference, any organization, the academe included, must manage its communication system strategically. Most of the activities done in the academe, individual or collective involve around information sent or received. In school settings, communication is part of action and reflection just as currency is part of the knowledge economy. Being a knowledge-building organization, the academe is expected to promote and perpetuate knowledge sharing.

The intriguing questions are "Why do academe, a supposed knowledge building institution seemingly fall short of knowledge sharing? This question provided impetus for this research. Using the communication lens, the main goal of this study was to examine the relationship between communication and knowledge sharing practices in the academe.

In terms of relationship between communication dimensions and knowledge sharing in the academe, little research can be found on this area. This study addressed this scarcity. Building on a previous study, this attempted to develop à scale to measure communication practices and relate these with knowledge sharing in the academe. The study also demonstrated potential implications for strategic management of knowledge and communication system in the academe as knowledge organization.

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2 Literature and statement of the problem

Litening, persuading, teaching, learning, presenting, collaborating and coordinating are factors of communication and partnering skills as one of the five competencies in knowledge organizations Davenport et. al, 2001) [1]. This statement clearly stresses the value of communication in the academe as knowledge institution. As knowledge sharing is a form of communication van den Hooff & De Ridder, 2004 [2], and that knowledge transferring between individuals in organizations requires communication Sveiby, 2000 [3], it is reasonable to assume that communication and knowledge sharing have a kind of relationship that is interesting to examine.

2.1 Communication and its various dimensions

Thomas et. al (2001)[4] has stated that communication is at the center of any complex, modern organizations. Organizational communication is considered as the social glue (Greenberg & Baron, 2003) [5] Communication helps create shared meaning, the norms, values and culture of the organization. (Wiesenfeld et. al., 1998). [6] Communication emerges to achieve the intensive use of the knowledge that is required to perform specific tasks and to integrate dispersed knowledge that is embodied in human minds.

Communication in organizations occur at three primary levels, interpersonal level (between supervisor-subordinate), between groups (coworkers), and at an organizational level (within the organization and with outside stakeholders and clients) (Communicationtheory.org, 2010 as cited in Sharma, 2015)[7]

For this study organizational communication as cited in the study of De Nobile & McCormick (2008) [8] is defined as the process whereby people within an organization give and receive messages.

There are various dimensions of communication that could be found in the academe. De Nobile and McCormick (2008) [9] in their extensive review of literature in their study on organizational communications in Catholic schools in Australia, have identified a comprehensive schema of four functions of communications applicable to school. These functions were termed directive, supportive, cultural and democratic.

Added to these functions, communication in schools can also be viewed in terms of direction or flow. Communication directions could be downward, upward or horizontal. Downward communication flows from upper to lower (such as manager to employer or superior to subordinate). Upward communication refers to the transmission of messages from lower to higher levels of the organization (such as the communication initiated by subordinates with their superiors).Whereas, the flow of messages across functional areas at a given level of an organization (this permits people at the same level to communicate directly) is the horizontal communication.

Communication load is another communication dimension that is critical in organizational communication, more particularly in the academic setting. Communication load refers to the amount and complexity of information received (Farace et.al., 1977; McKinnon, 1990 cited in De Nobile & McCormick, 2008). [10]

2.2 Knowledge Sharing

Studies on knowledge sharing often take off from distinguishing between two dominant types of knowledge: tacit and explicit. The philosopher Polanyi (1966) [11]described tacit knowledge as knowing more than we can tell, or knowing without thinking about it, like riding a bicycle. This highly personal, subjective form of knowledge is usually informal and can be inferred from the statements of others. Tacit knowledge is technical or cognitive and is made up of mental modes, values, beliefs, perceptions, insights and assumptions. Explicit knowledge is technical or academic data or information that is described in formal language, like manuals, mathematical expressions, copyright and patents. (Sternberg cited in Smith, 2001.) [12]Levering knowledge is only possible when people can share the knowledge they have and build on the knowledge of others (Ipe, 2003) [13]

2.3 Communication and Knowledge Sharing

Schools, like most organizations, should learn and gain knowledge so as to improve decision-making and innovation especially in the age of increased external and internal pressures for change and improvement. KM can be used as a strategy by schools to improve competitive performance. Zhao (2010) [14] points out that school KM can facilitate acquisition, sharing and

application of teacher knowledge in school so as to better manage and apply school's tangible and intangible knowledge assets, especially the professional knowledge, experiences and competencies of teachers. Several recent studies have explicitly called for new research to focus on KM in schools (Chu, Wang, Zhou & Yuen, Ge et al, Wang & Jia, Zhao,   cited in Chu, K.W. , Wang , M. & Yuen, A.H.K., 2011) [15]

A focus on knowledge sharing reveals   two active processes of donating or collecting. (van den Hooff & de Ridder, 2004).[16] This implies that KS implies both the supply of new knowledge, and the demand for new knowledge as termed by Ardichvili, Page and Wentling (2003) as cited in de Vries, van den Hoof & de Ridder (2006) [17]. Following their study, both behaviors distinguished are active processes—either actively communicating to others what one knows or actively consulting others to learn what they know. Both behaviors have a different nature and as van Fries et.al. (2006) [18] claimed can be expected to be differentially influenced by different factors.

With several studies conducted along communication in organizations and knowledge sharing as separate areas, further research have yet to contextualize both communication and knowledge sharing in the academe.

The main argument of the study is to distinguish KS as a unique form of communication in an academic setting.This study proposed a careful look at communication relating it to KS situated under the discourse of representation, that is, the positivist view. Therefore, the research questions which were answered in the study were:

1. What are the dimensions of communication practices as generated by factor analysis?
2. How is communication related to knowledge sharing practices in the academic setting?

Based on literature review, to establish the relationships, the following hypotheses were tested in this study:

- H1. Downward supportive communication will be positively related

to knowledge sharing?

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- H2. Horizontal supportive communication will be positively related

to knowledge sharing?

- H3. Upward supportive communication will be positively related to knowledge sharing?

- H4. Communication load will be negatively related to knowledge

sharing?

3. Which among the communication dimensions predict KD, KC and KS ?

4. Methodology

This study involved examining the effects of communication practices pertaining to various communication dimensions of the teaching and non-teaching personnel's KS. For the first part of this study, the target respondents were described and their demographic information provided. Next, the independent variable (communication dimensions) and dependent variable (KS) were discussed. This was followed by the results of the factor analysis as the main statistical measure used to identify the independent variables (downward supportive, upward supportive, horizontal supportive communication, and communication load) and the result of the correlation study with KS as dependent variable. The discussions regarding the analysis and hypothesis construct were presented. On the last part were the conclusion and recommendations.

3.1 Sample

The data for this study were the employees of a Catholic school in Batangas, Philippines. The research respondents included 27 males (12.9%) and 182 (87.0%) females. The figures revealed that male respondents are a minority compared with female respondents in the school personnel population. In general the respondents have been part of the college for a considerable period of time. Personnel with 0-5 years in the current position were the highest in number with 114 (54.5%), followed by 39 (18.6%) of those with 6-10 years. Those who were holding the current position for 11-15 years comprised of the 16 (7.6%), 16-20 years old with 17 (8.1%) and the last those representing the 21+ years old were 23 (11.0%). Generally, those who are in their first five years in their current position in the college composed more than half of the personnel.

(Table for this could be shown upon request)

3.2. Measures: Independent and Dependent Variables

The independent variable in this study was the Communication Practices while the dependent variable was Knowledge Sharing. Building on De Nobile and McCormick's Organizational communication Questionnaire (2008), the communication practices of the respondents were measured using five-item Likert type scales ranging from a low of 1 to a high of 5, with 1 and 5 indicating *strong disagreement* and *strong agreement*, respectively. The factor analysis was performed full on the 235 personnel of St. Bridget College. Four communication dimensions emerged from Exploratory Factor Analysis using SPSS version 22 with Principal Component Analysis and Oblimin with Kaiser Normalization. Item descriptions, response categories, factor loadings and the internal consistency reliability coefficients of items created based on factor scores are reported as valuable part of the complete research report. A summary of the factor loading is found in Table 2.

Knowledge Sharing. Knowledge sharing practices were measured using van den Hooffs & De Ridder's scales (2004) on measuring Knowledge Sharing. The 10-item scales made use of a five-item Likert type ranging from a low of 1 to a high of 5, with 1 and 5 indicating *strong disagreement* and *strong agreement*, respectively.

Table 1. Factor Solution for Organizational Communication Questionnaire

Factor Name	*Number of items*	*Eigenvalue*	*Reliability*
Downward Supportive Communication	5	4.512	.863
Horizontal Supportive Communication	4	2.597	.756
Upward supportive Communication	4	1.766	.743
Communication Load	4	1.384	.688

The four factors that emerged were interpreted and labeled as follows: Downward Supportive Communication (DSC), Horizontal Supportive Communication (HSC), Upward Communication Support (UCS) and Communication Load. As defined in De Nobile and McCormick's (2008) study, DSC is related to the ways in which the department head might communicate support to staff members. HSC, on the other hand points to the form of support shared among colleagues,

while USC considers staff members giving support to the department head. And finally, CL is about the sufficiency and accuracy of information received from the principal and other colleagues.

3.3. Results, Discussions and Conclusions

In relation to the formulated hypotheses, the following results from a cross analysis (correlation and regression) are presented :

• The study failed to support the positive relationship between Downward Supportive Communication and Knowledge Sharing at p=0.189.

• There is a positive relationship between Horizontal Supportive Communication and KS at 95% confidence interval. (p=0.003)

• There is highly positive relationship between Upward Supportive Communication and KS at 99% (p=0.001)

• Communication Load as negatively related to KS was not supported at p=0.498.

• In sum, there is highly positive relationship between communication and knowledge sharing practices at 99% confidence interval (p=0.001).

• Horizontal Supportive communication was a predictor of Knowledge Donating whereas, Upward Supportive Communication was a predictor of Knowledge Collecting. Therefore, taken together, Horizontal Supportive Communication and Upward Supportive Communication were predictors of Knowledge Sharing.

Communication Practices	Knowledge Sharing		
	r	r^2	p-value
DSC	0.091	0.008	0.189
CL	0.047	0.002	0.498
HSC	0.202**	0.040	0.003
USC	0.221**	0.048	0.001
Communication Practices	0.223	0.0497	0.001

The table below provides visual summary of the statistical results obtained in this study.

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Table 3   Summary of Correlation Analysis for Communication   and Knowledge Sharing

N= 209

** Correlation is significant at the 0.01 level(2 tailed) (p>0.01)

*Correlation is significant at the 0.05 level (2-tailed) (p>0.05)

Conclusions and Recommendations

From the results of this research knowledge sharing is seen as a social relational process through which respondents working in the academic setting engaged in communication to achieve that purpose. However, KS that is happening in the academic is distinct as it demonstrates significant characteristics.KS is a unique form of communication in the academe characterized by the following : (1) the prevalence of supportive communication grounded on Social Theory of KS in the academe, (2) supportive "climate" as crucial variable in KS in the academe, and (3) excessive communication load is not an issue among academic personnel. Recommendations for strategic and leadership management include: (1) Creating research agenda focusing on knowledge sharing among school personnel by the school research and development office and (2) A suggestion on leadership management for the school Human Resource Development to consider communication apprehension in leadership and management placement. Some implications for research were also given : (1)a more expansive study using a redefined conceptual framework which include trust as moderating variable derived from the findings of the research be conducted as follow up study, (2) for a similar study to treat data using aggregates of respondents to come up with a more definitive relationships between communication dimensions and knowledge sharing among categories or groups of school personnel.

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