Examination of the Relationships among Leadership Styles, Organziational Culture and Knowlegde Management Practices

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Abstract

Recently, the relationships between leadership behaviors and knowledge management have been the focus of much attention and as such have become a 'foundation stone' of endeavors to improve organizational performance. However, there is the lack of attention to the impact of organizational culture on such relationships. Addressing this research gap, this paper utilizes an exploratory research designed to examine how leadership behavior relates to knowledge management practices, and to determine whether organizational culture moderates the relationship between leadership style and knowledge management in Australian small-to-medium sized enterprises (SMEs). Surveys were distributed to 1,000 SMEs, and a total of 157 valid responses were received. Statistical analysis reveals that only transformational leadership behaviors are positively related to knowledge management practices; and the moderating effect of organizational culture was found to be statistically insignificant.

Keywords

Leadership styles, Organizational culture, Knowledge management

1. Introduction

An increasing number of organizations are incorporating a knowledge management (KM) strategy in order to lever their core competencies, thus achieving competitive advantage (Bhatt, 2001; Demarest, 1997). Organizations are interested in KM to boost the efficiency, increase the productivity and quality of their services, and to achieve innovative solutions and products to, and for, their customers. Within the research community, KM is considered as a catalyst for understanding the role of knowledge in an organization (Moffett *et al*., 2003), and has been linked to organizational performance in the construction industry (Chen and Mohamed, 2008). Initially, KM was placed mostly in the information technology (IT) domain, and the emphasis was on knowledge-based systems, tools and techniques (Andreu and Ciborra, 1996; Koch, 2003). For this reason, Egbu (2004) concluded that the KM literature highlights an overwhelming emphasis on IT. Nowadays, practitioners and researchers are realizing the importance of the 'soft' aspects of KM (Guzman and Wilson, 2005), and believe that effective KM depends not merely on IT platforms, but more broadly on the social ecology of an organization, and that IT is simply a facilitator (Carrillo *et al*., 2004). Effective KM requires that attention be paid to the human and cultural aspects of business, particularly the experiences and tacit knowledge of employees (Nonaka and Konno, 1998). Accordingly, numerous studies reveal that organizational culture and leadership are the major barriers (or enablers) to creating, sharing and leveraging knowledge assets (Chang and Lee, 2007; Crawford, 2005; De Long and Fahey, 2000).

The examination of the literature in the fields of organizational culture and leadership reveals that these two concepts have been independently linked to KM. For example, researchers have examined the links between leadership styles and KM (Crawford, 2005; Politis, 2001; Sarin and McDermott,

2003), and also between organizational culture and KM (De Long and Fahey, 2000; O'Reilly, 1989). However, the literature also alludes to the role of leaders in 'creating' and 'maintaining' particular types of organizational culture (Kavanagh and Ashkanasy, 2006; Schein, 2004). Equally, the literature on leadership suggests that the ability to understand and work within a culture is a prerequisite to leadership effectiveness (Bass and Avolio, 1993).

Despite such implicit and explicit linking of leadership and organizational culture in many parts of the organizational theory, little critical research has been devoted to understanding the link between the two concepts and the impact that such an association might have on KM (Block, 2003; Chang and Lee, 2007). Addressing the aforesaid gap in the literature, this paper provides empirical evidence of the links between two types of leadership behaviors, organizational culture and KM practices. Specifically, the paper addresses the following two research questions:

(1)   How do the transformational and transactional leadership behaviors relate to KM practices?

(2)   How does the organizational culture moderate the relationship between leadership behaviors and KM practices? see Figure 1.
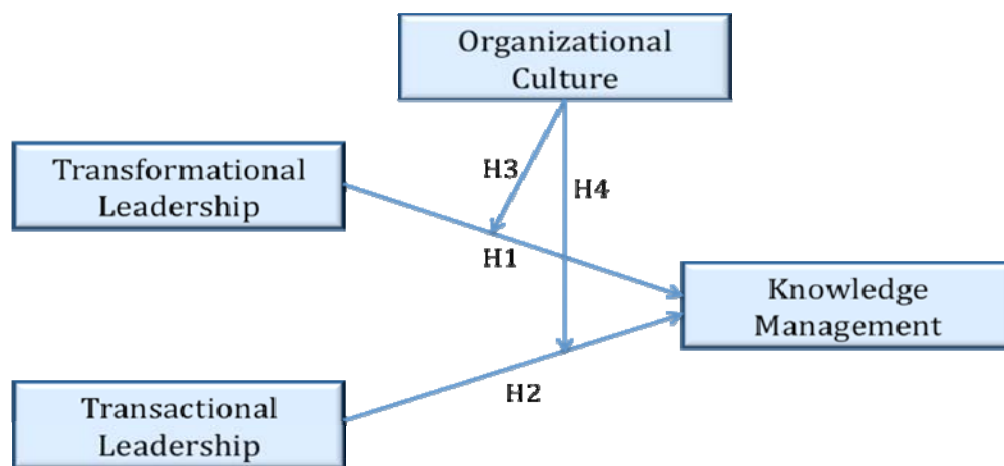
Figure 1: Conceptual Model and Hypotheses

2. Literature Review

2.1 Transformational and Transactional Leadership Behaviors

Two types of leadership behaviors are addressed in this paper; these are transformational and transactional behaviors. The former is defined in terms of the leader's effect on followers who feels trust, admiration, loyalty and respect towards the leader, and are motivated to do more than they originally expected to do, whereas the latter emphasizes the transaction or exchange that takes place among the leader and followers (Bass and Avolio, 1993).

Transformational leaders exhibit idealized influence attributed and behavior, individualized consideration, intellectual stimulation, and inspirational motivation. Transactional leadership, however, could exhibit behaviors such as contingent reward, management by exception (active) management by exception (passive), and laissez-faire.

2.2 Organizational Culture

Various organizations come with their inherit culture to impact the organizational operation. Schein (2004) reveals that organizational culture consists of two layers of concepts, namely visible and

invisible characteristics. The visible layer means external buildings, clothing, behavior modes, regulations, stories, myths, languages and rites. The invisible layer means common values, norms, faith and assumptions of business organization members. Organizational culture, in addition to the capability to integrate daily activities of employees to reach the planned goals, can also help organizations adapt well to the external environment for rapid and appropriate response. Because the organizational culture is a concept full of abstract meanings, based on different research purposes and various research subjects, this research study adopts the proposal of Denison and his colleagues (Denison and Mishra, 1995; Fey and Denison, 2003) considering the adaptive, mission, involving (clan) and consistent (bureaucratic) dimensions of culture.

2.3 Knowledge Management

KM can be understood as the process of making tacit knowledge explicit (Nonaka and Konno, 1998). Therefore, to explore KM processes, this paper draws upon Nonaka's (1994) four KM processes: socialization, internalization, externalization and combination which, in combination, view organizational KM as involving a continual interplay between the tacit and explicit dimensions of knowledge and a growing spiral flow as knowledge moves through individuals, groups and organizational levels.

2.4 Leadership Behaviors and Knowledge Management

Due to the role leaders play, they have an enormous impact on KM practices within their organizations. A leader creates the conditions that allow (or otherwise) participants to exercise and cultivate their knowledge manipulation skills, to contribute their own individual knowledge resources to the organization's pool of knowledge, and to have easy access to relevant knowledge (Crawford, 2005; Politis, 2001; Ribiere and Sitar, 2003). Examining the relationship between self-management, transformational/transactional leadership, and various KM attributes, Politis (2001) found that self-management, transformational and transactional leadership styles are related to knowledge acquisition. Similarly, among the most specific findings in Crawford's (2005) research is the strong relationship between transformational leadership and KM behaviors. Crawford (2005) also found a statistically significant correlation between KM and contingent reward, and a negative correlation with management by exception. Finally, Vera and Crossan (2004) found that transactional leaders stimulate the flow of learning from organization to individuals by assigning a strong value to organizational rules, procedures and past experiences.

2.5 Leadership and Organizational Culture

The literature review highlighted that both transformational and transactional leaderships have a statistically significant effect on KM implementation. The major gap in the literature, however, is the lack of attention given to the impact of organizational culture on the relationship between leadership and KM (Block, 2003; Chang and Lee, 2007; Ribiere and Sitar, 2003).

After examining the concepts of organizational culture and leadership closely, Schein (2004) concludes that organizational culture and leadership are two sides of the same coin; neither can be really understood by itself. During the process of organization formation, the founder of a company creates an organization, which reflects their values and beliefs. In this sense, the founder creates and shapes the cultural traits of their organizations. In contrast, the cultural context conditions our actions, our beliefs, and widely held values. Just as the leadership process is not divorced from the broader situational context in which the leadership takes place (Northouse, 2001; Ogbonna and Harris, 2000), unless the culture is supportive of leaders, leadership based on common values is impossible. Thus, culture determines a large part of what leaders do and how they do it.

Furthermore, according to Bass (1985), transactional leaders work within their organizational cultures and maintain consistent rules, procedures, and norms. On the other hand, Bass (1985) also noted that transformational leaders frequently change their organizational culture with a new vision and revision of its shared assumptions, values and norms. In a transformational culture, there is generally a sense

of purpose and a feeling of family. Assumptions, values and norms do not preclude individuals from pursuing their own goals and rewards. Superiors feel a personal obligation to help new members assimilate into the culture. Leaders and followers share mutual interests and a sense of shared fates and interdependence (Bass and Avolio, 1993).

This paper, therefore, aims to address the aforesaid gap in the literature and provides empirical evidence of the links between two types of leadership behavior, organizational culture, and knowledge management practices as hypothesized below.

3. Hypotheses

- H1: Transformational leadership behaviors are positively correlated with KM practices.
- H2: Transactional leadership behaviors are positively correlated with KM practices.
- H3: Organizational culture moderates the relationship between transformational leadership and KM.
- H4: Organizational culture moderates the relationship between transactional leadership and KM.

4. Research Variables and Measurements

While the survey approach presents some methodological and conceptual challenges as outlined by Rousseau (1990), it was assumed that the quality of information gathered from such an exploratory analysis would outweigh the suggested limitations associated with this method. In addition, this approach presents minimal disruption to participants in terms of time requirement. Furthermore, while the quantitative approach employed in this study may not allow for an analysis of the deepest levels of culture as defined by Schein (2004), it allows for an examination of the perceptual realities of the respondents. Because behaviors and attitudes are determined not by objective reality, but by the actor's perception of reality (Ashkanasy *et al.*, 2000), it is clearly appropriate to focus on perception rather than on reality. Lastly, it is assumed that the selection of well-known measurement tools would facilitate the opportunity to add to the body of established findings in the literature.

Surveys (described in the following section) were distributed to a random selection of 1,000 Australian Small-to-Medium Sized Enterprises (SMEs) – each having a total number of employees less than 500. Only 157 completed and usable questionnaires were returned.

4.1 Leadership Behaviors

The independent variables in this study were transformational and transactional leadership behaviors. Bass and Avolio's (1997) multifactor leadership questionnaire (MLQ – Form 5X) was selected to measure these two constructs. Respondents were asked to measure the leadership behaviors with the next position to their own using a five-point Likert scale ranging from 'not at all' valued as '0' to 'always' valued as '4'. The internal consistency reliability measure (Cronbach's alpha) for leadership behaviors of idealized influence, idealized influence, inspirational motivation, intellectual stimulation, individual consideration, contingent reward, management by exception (active), management by exception (passive), and laissez-faire were found to be 0.75, 0.73, 0.81, 0.72, 0.69, 0.75, 0.73, 0.66, and 0.75, respectively.

4.2 Organizational Culture

Denison's Organizational Cultural Survey (DOCS), adapted from Fey and Denison (2003) is selected to measure the moderating variable 'organizational culture'. This 36-item questionnaire asked employees to describe their organization using a five-point Likert rating system scale ranging from 'strongly disagree' valued as '1' to 'strongly agree' valued as '5'. Cronbach's alpha for involvement, consistency, adaptability, and mission were found to be 0.91, 0.81, 0.76 and 0.96, respectively.

4.3 Knowledge Management Practices

A 17-item assessment questionnaire developed by Becerra-Fernandez and Sabherwal (2001) was used to allow participants to indicate how frequently each of the identified KM processes and tools is used within their respective organization (Sabherwal and Becerra-Fernandez, 2003). The scale for their answers ranged from 1 = 'very infrequently', through 3 = 'moderate frequency', to 5 = 'very frequently'. Cronbach's alpha for internalization, socialization, externalization, and combination were found to be 0.56, 0.67, 0.79, and 0.83, respectively.

5. Results

5.1 Descriptive and Correlation Analyses

The majority of respondents appear to hold senior and middle managerial positions, with about 45% of them have worked for their respective organization for more than 5 years. Table 1 shows the means, standard deviations, and correlations for all four variables. Overall, respondents' perception of their supervisors' leadership behaviors tended to be more transformational than transactional in nature.

Correlation results indicate that: 1) a statistically significant positive correlation between transformational leadership and KM practices exists, 2) a statistically significant positive correlation between organizational culture and KM practices exists, and 3) the absence of statistically significant correlation between transactional leadership and KM practices.

Table 1: Means, Standard Deviations, and Correlation for all Four Variables

Variables	TF	TS	OC	KM	Mean	SD
Transformation Leadership (TF)	1.000	-.008	.663**	.392**	2.57	0.67
Transactional Leadership (TS)		1.000	-.183*	.063	1.72	0.43
Organizational Culture (OC)			1.000	.556**	3.61	0.66
Knowledge Management Practices (KM)				1.000	2.98	0.61

Note: ** Correlation is significant at the 0.01 level

5.2 Hypotheses Testing

The first two hypotheses were formulated to measure whether the leaders' transformational and transactional behaviors are positively correlated with KM practices. Multiple regression analysis was performed to test these two hypotheses; where the dependent variable KM was considered to be a single variable. Table 2 summarizes the regression results for testing hypothesis one and two, which indicate that transformational, and not transactional, leadership behaviors are positively related to knowledge management practices. Results listed in Table 3 indicate that only intellectual stimulation (IS) – a dimension of transformational leadership – was a predictor of KM.

Table 2: Regression Analysis of Knowledge Management on Transformational and Transactional Leadership Behaviors

Independent variables	R	R-Square	ANOVA		Coefficients			
			F	Sig.	B	Beta	t	Sig.
Transformational Leadership	0.392	0.148	28.173	0.000	0.357	0.392	5.308	.000
Transactional Leadership	0.063	-0.002	0.619	0.433	0.089	0.063	0.787	.433

Table 3: Regression Analysis of Knowledge Management on Transformational Leadership Behaviors

Independent variables	R	R-Square	ANOVA		Coefficients			
			F	Sig.	B	Beta	t	Sig.
(Constant)					2.092		11.027	.000
Idealized influence (Attributed)					.003	.003	.026	.979
Idealized influence (behaviour)					.122	.161	1.295	.197
Inspirational motivation					.000	-.001	-.008	.994
Intellectual stimulation					**.200**	**.239**	**2.035**	**.044**
Individual consideration	.411	.142	6.155	.000	.045	.061	.472	.637

To test the third hypothesis, and to determine whether organizational culture moderates the relationship between transformational leadership with knowledge management, a moderated regression analysis was utilized. According to Robinson (1996), a moderation is demonstrated if the following three conditions are fulfilled. The first condition stipulates that independent variables and proposed moderator must be significantly related to the dependent variable when considered separately. Result reported in columns two and three in Table 4 confirmed this, with significant adjusted R-Square of 0.148 and 0.304 respectively. The second condition requires the independent variable to be significantly related to the proposed moderator. The last conditions stipulates that the relationship between the independent variable and the dependent variable should be weaker or non-significant when the proposed moderator is in the regression equation than when not. The last column in Table 4 confirms that there is no significant moderating effect of organizational culture on the link between transformational leadership and knowledge management as the regression provides a lower adjusted R-Square of 0.05, with the moderator effect (TF*OC) replacing TF. Finally, hypothesis 4 needs no testing as the relationship between transactional leadership and KM practices were found to be statistically insignificant.

Table 4: Regression Analysis for Moderating Variable of Organizational Culture on Transformational Leadership Behaviors and Knowledge Management

		KM	KM	OC	KM
Adj R-Square		0.304	0.148	0.435	0.05
F		69.237	28.173	121.35	1.712
Beta	TF		0.392	0.663	
	OC	0.556			
	TF*OC				-0.105

6. Conclusions

In an evaluation of organizational culture, leadership and knowledge management, it emerged that, while empirical evidence exists of linking organizational culture and knowledge management (De Long and Fahey, 2000; Park, *et al.*, 2004), and between leadership behaviors and knowledge management (Crawford, 2005; Politis, 2002), the combined study of all three concepts has been lacking hitherto. Consequently, based on the review of literature, which suggest that leadership behaviors and organizational culture are linked, it was proposed that organizational culture moderates the association between leadership behavior and knowledge management. In an effort to redress this literature imbalance, a survey was administered to Australian small-to-medium sized enterprises and the results indicate that organizational culture does not moderate the relationship between leadership and knowledge management. In contrast, organizational culture appears to be directly linked to knowledge management. The findings also lend some credibility to the notion that intellectual stimulation would facilitate knowledge management.

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