Knowledge Sharing, Personality Traits and Diversity: 
A Literature Review

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This study reviews the recent empirical studies on knowledge sharing and personality and diversity. The paper begins with an overview of the concepts of knowledge sharing and personality. Secondly, the Big Five personality traits (openness to experience, agreeableness, conscientiousness, extraversion, and neuroticism) and aspects of diversity (culture and gender) that influence knowledge sharing are identified. The paper concludes with some suggestions for further research.

Introduction

Knowledge has been well documented as a source of sustainable competitive advantage for organizations in today’s economy (e.g., Wang & Noe, 2010). One of the main goals of knowledge management is to facilitate the flow of knowledge among individuals and the conversion of knowledge shared to organizational knowledge. An activity central to knowledge management is knowledge sharing. In order for knowledge management initiatives to be successful, it is essential to examine what factors may motivate individuals to share knowledge. Research has shown that knowledge sharing is positively related to firm innovation (Liao, 2006), increased productivity (Quigley, Tesluk, Locke, & Bartol, 2007), and improved individual and firm performance (Verburg & Andriessen, 2011). These benefits from knowledge sharing have encouraged organizations to invest significant amounts of money and time into knowledge management projects. Despite the resources allocated to knowledge management projects, many still fail (Wang & Noe, 2011). One reason for these outcomes may be the lack of attention paid to some of the factors that influence individuals’ motivation to share knowledge such as personality traits and diversity.

The purpose of this study is to understand how personality and diversity influence knowledge sharing through a review of the relevant literature. This is important because organizational level knowledge and individual level performance are both influenced by how much knowledge is shared among employees.

This paper contributes to our understanding of the current knowledge sharing literature in three ways. First, we review the literature from different fields examining how personality traits and diversity influence individual-level knowledge sharing. Prior studies have focused on organizational context, interpersonal and team characteristics, individual characteristics and motivational factors, to name a few. However, few studies have investigated the role personality and diversity play in one’s motivation to share knowledge (Mooradian, Renzl, & Matzler, 2006). Second, with globalization, the way people work and study has changed. Educators, like other professionals, should take these changes into account and encourage informal learning opportunities through knowledge sharing in work groups – both the ones they may participate in and those of the individuals they educate. Third, knowledge sharing is important in order for firms to broaden skills and competencies (Matzler, Renzl, Mooradian, von Krogh, & Mueller, 2011). One tool that has been used to leverage knowledge in a number of organizations is e-learning, which is the generation and diffusion of knowledge through the online delivery of
education and training (Wild, Griggs, & Downing, 2002). Learning more about factors that influence knowledge sharing would enable professionals to use e-learning tools more efficiently.

The paper will first discuss how the studies included in this paper were identified. Important concepts in the knowledge sharing literature will then be defined. Next, the paper will identify different areas covered by the literature on knowledge sharing, personality, and diversity. Finally, the last section of the paper discusses future issues that could be further addressed in the literature.

Identification of Studies

The studies included in this paper were primarily identified using the ProQuest database. A search was conducted using the keywords knowledge sharing, personality, neuroticism, extraversion, intention to share knowledge, openness to experience, agreeableness, conscientiousness, diversity, culture, and gender for the years 2006 through 2011. Peer-reviewed articles published in journals in management, diversity, psychology, and information science were included in the review. Papers published in conference proceedings were excluded. Articles were also identified from reference sections of articles found in ProQuest.

A total of 23 qualitative and quantitative studies published between 2006 and 2011 were identified, that emphasize the following areas: personality traits, national culture, individual culture, and gender. Some articles prior to this period were also included to define some important concepts.

Definitions

There is no agreement in the literature on what knowledge is, and how it should be defined (Singh, Dilnutt, & Lakomski, 2008). Some researchers distinguish between knowledge and information (e.g., Nonaka, 1994) while others most often consider the terms knowledge and information to be interchangeable (e.g., Wang & Noe, 2010).

Knowledge sharing is the “provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures” (Wang & Noe, 2010, p. 117).

There are two types of knowledge: tacit and explicit knowledge. Explicit knowledge can be easily recognized, codified, and stored. Tacit (or implicit) knowledge is understood and implied without being stated; it is embedded in individuals or in organizational contexts, associated with experience and more difficult to transfer than explicit knowledge for that particular reason (Hau & Evangelista, 2007). Tacit knowledge is acquired by interacting with others (Bate & Robert, 2002).

Focus of Knowledge Sharing Research

Knowledge sharing research emphasizes a number of areas including environmental factors such as organizational context (e.g., organizational climate, team characteristics, etc.) and individual characteristics. One of those individual characteristics is personality. Indeed, prior research has found that personality traits can be used to explain and predict attitudes and performance in organizations (e.g., Ones, Dilchert, Viswesvaran, Chockalingam, & Judge,
Therefore, it is important to investigate the influence personality traits may have on knowledge sharing.

**Personality**

There are five principal personality dimensions that explain most of the variance in personality (e.g., Cabrera, Collins, & Salgado, 2006; Matzler & Müller, 2011; Matzler et al., 2011): neuroticism (versus emotional stability), extraversion (versus introversion), openness to experience (versus closeness to experience), agreeableness (versus rudeness), and conscientiousness (versus non dependability). According to Cabrera et al. (2006), individual characteristics such as personality traits explain why some individuals are motivated to share knowledge while others are not.

A few studies have examined the relationship between personality traits and motivation to share knowledge and found that personality traits’ influence on knowledge sharing intention varies. Of the five personality traits, openness to experience was the strongest predictor of knowledge sharing (Cabrera et al., 2006; Matzler & Müller, 2011; Matzler, Renzl, Müller, Herting, & Mooradian, 2008; Wang & Yang, 2007). However, in organizations that evaluate employees on knowledge sharing and reward them for it (as compared to organizational contexts where knowledge sharing is simply encouraged but not rewarded), individuals with higher levels of openness were less likely to engage in knowledge sharing behaviors (Wang, Noe, & Wang, 2011). The authors suggested that this difference with prior research may be due to the fact individuals with high levels of openness tend to seek knowledge, rather than share it.

While openness to experience has been shown consistently to be positively associated with knowledge sharing intention, results are mixed for agreeableness. People who score high on the agreeableness scale are friendly, generous, willing to help (Matzler et al., 2008). According to de Vries, van den Hoof, and de Ridder (2006), teams with members who scored high on the agreeableness scale were more likely to share knowledge than those whose members had lower scores. Similarly, Matzler et al. (2008) found that agreeableness was positively related to knowledge sharing. On the other hand, Wang et al. (2011) found that agreeableness had no influence on the relationship between knowledge sharing and accountability supported by management practices (i.e., situations where employees are held accountable for knowledge sharing and rewarded for it). Overall, the studies included in this paper show that agreeableness is likely to positively influence knowledge sharing (e.g., Ferguson, Paulin, & Bergeron, 2010).

Another personality trait whose relationship with knowledge sharing behavior has been investigated is extraversion. Extraversion has a positive influence on knowledge sharing (de Vries et al., 2006; Ferguson et al., 2010). Extroverted individuals tend to share knowledge whether or not they would be held accounted and rewarded for it (Wang et al., 2011). A possible explanation for this finding may be that there is a relationship between extraversion and need to gain status (Barrick, Parks, & Mount, 2005), which has been identified as a motivating factor for knowledge sharing (e.g., Ardichvili, 2008).

Conscientiousness, which is known as a good predictor of work performance, was found to be related to knowledge sharing (Matzler et al., 2008; Mooradian et al., 2006; Wang & Yang, 2007) as well. It appears that conscientiousness also influences learning orientation, which in turns affects knowledge sharing (Matzler & Müller, 2011). This suggests that learning-oriented individuals, who believe they can develop abilities, will be more likely to share knowledge to achieve that objective. However, findings from Cabrera et al. (2006), and Teh, Yong, and Chong (2007) failed to support a significant relationship between conscientiousness and knowledge
sharing. Similarly, the majority of studies included in this paper did not find a significant relationship between neuroticism and intention to share knowledge (e.g., Wang & Yang, 2007).

Researchers have also examined the link between personality trait and trust. Trust plays a key role in one’s attitude toward knowledge sharing. According to Ardichvili (2008), within the community of practice context, trust is a prerequisite to the successful sharing of knowledge. Communities of practice are groups of people “who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (Wenger, McDermott, & Snyder, 2002, p. 4). Participants will be more inclined to use the knowledge made available through the community of practice if they trust it to be a reliable and objective source of information. Research has shown that extraversion, openness to experience, propensity to trust, agreeableness, neuroticism and conscientiousness are antecedents to trust (Usoro, Majewski, & Kuofie, 2009).

**Diversity**

Many studies have examined the impact of diversity on knowledge sharing. A number of aspects of diversity that likely affect intention to share knowledge have been identified, including culture and demographic characteristics such as gender.

According to Lu, Leung, & Tremain Koch (2006), women tend to spend more time providing assistance to others and are more altruist than men. These findings suggest that women will be more inclined than men to have a positive attitude toward knowledge sharing. However, by and large, research found that gender has little impact on intention to share knowledge. For instance, Mäkelä, Andersson, & Seppälä (2011) found that, in the context of multinational corporations, gender’s influence on knowledge sharing attitude was insignificant.

Another aspect of diversity that is often investigated in relation to knowledge sharing is culture. Culture may be examined at the national, organizational, or cultural level. National culture’s impact on knowledge sharing attitude may not be as strong as it is generally assumed. Indeed, in their study of employees in a Chinese company, Li, Ardichvili, Maurer, Wentling, and Stuedemann (2007) found that culture had little influence on their intention not to share knowledge. Rather, the reluctance to share knowledge was linked to the high competitiveness in the organization. However, according to Sackmann and Friesl (2007), attitude toward knowledge sharing depends on the perceived cultural differences of individuals in the team. Indeed, Sackmann and Friesl (2007, p. 150) found that “Members of cultures whose differences where most visible restricted their communication and knowledge sharing activity to their original group members. Members of groups, which were not, that far apart were more likely to engage in successful knowledge sharing”.

**Emerging Issues**

Mixed results on the influence of agreeableness and conscientiousness on knowledge sharing should be further investigated. Little is known about how personality factors work in conjunction with each other and the organizational context to explain knowledge sharing, and how positive attitudes toward knowledge sharing can be improved. Practitioners could benefit greatly from further research in this area. Indeed, one of the reasons for the popularity of knowledge management and knowledge sharing initiatives is their perceived link to work performance. Understanding how individuals’ positive attitudes toward knowledge sharing can be enhanced would help those initiatives be more effective.
Further research in this area should examine the different aspects of trust and its relationship to personality traits theory; additional research is also needed to examine how effective those traits are at predicting knowledge sharing behaviors.

Not many studies investigate the interaction between personal factors, such as personality traits, and environmental factors. Interaction between those factors may have an impact on knowledge sharing intention.

Finally, understanding which of the personality traits tend to lead to positive or negative attitudes toward knowledge sharing would improve knowledge management practice.

**Conclusion**

This review gives an overview of the recent research in one of the areas of knowledge sharing research, and suggests some issues that need to be investigated further. Many others remain to be studies.

**References**

A full reference list dated August 2011 is available upon request from the author.


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