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HOW KNOWLEDGE MANAGEMENT INTENTION INFLUENCED BY ORGANIZATIONAL CULTURE AND KNOWLEDGE MANAGEMENT CULTURE

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ABSTRACT

In the current knowledge economy era, knowledge has become an organization's primary resource due to the fact that an organization is an extension of an information society. Therefore, firms that are able to effectively manage their knowledge resources can expect to reap a wide range of benefits. Due to the diversity of organizational culture (which include results-oriented, tightly controlled, job-oriented, closed system, solidarity, sociability and need for achievement), a significant issue is the way organizational culture impacts on KM intention in the KM process through the mediation of KM culture. Indeed, strong culture has a direct impact on KM culture and KM intention. This paper details our study findings, which indicate that while results-oriented, solidarity, sociability and strong cultures have significant positive effects on an organization's ability to foster a KM culture in the KM process, a job-oriented culture has a significant negative effect. Moreover, both KM culture and strong culture have positive direct effects on an individual's intention to manage knowledge. Also discussed in this paper are the implications of the study and its contribution to research and management practice.

Keywords: Organizational Culture, Knowledge Management Culture, Knowledge Management Intention

1. INTRODUCTION

In the current knowledge economy era, knowledge has become an organization's primary resource due to the fact that an organization is an extension of an information society (Schultze & Leidner 2002). Therefore, use of knowledge technologies to manage knowledge is a useful way of producing economic benefits (Hansen & Oetinger 2001). From this perspective, firms that do effectively manage their knowledge resources can expect to reap a wide range of benefits such as reduced manpower and infrastructure costs as well as improved corporate efficiency, effectiveness, innovation, and customer services (Davenport & Prusak 2000; Hansen & Oetinger 2001). Thus, it is apparent that knowledge management (KM) is a key issue in this knowledge economy era.

Organizational culture has long been argued to affect the consequences of information technology (Bock et al. 2005; Shih & Huang 2010). Sussman and Siegal (2003) asserted that information is embedded in a social context that determines both how the information will be shared and how it will be interpreted. Thus, organizational culture is an important knowledge resource for facilitating KM practices (Kayworth & Leidner 2003; Alavi et al. 2005-6; Eaves 2014). As good cultural values will lead to positive KM behaviors (Alavi et al. 2005-6), organizations should seek to promote and build the types of cultural values that support their specific KM objectives (Bock et al. 2005) to minimize the negative effects on organizations of individual efforts, which are often seen to clash with organizational culture (Bedford 2013). This is because organizational culture consists of basic, taken-for-granted assumptions and deep patterns of meaning shared through organizational participation as well as the manifestation of these assumptions (Ajmal & Koskinen 2008). According to Schein (2000), any difficulties in the KM process among people are primarily related to the "psychological climate" of the organization, which, in turn, depends upon the culture of the organization. Moreover, the failure of many knowledge transfer systems is often a result of cultural factors rather than technological oversights (Ajmal & Koskinen 2008; Pirkkalainen & Pawlowski 2013). For this reason, organizational culture is a major barrier to success in the KM process (Kayworth & Leidner 2003; Ajmal & Koskinen 2008; Pirkkalainen & Pawlowski 2014).

Although KM has gained attention over the last decade, its focus has shifted from advances in technologies designed to move inputs and products to the moving of information and knowledge, altering the nature of organizations and the basis of competition (Schultze & Leidner 2002; Massey & Montoya-Weiss 2006; Bock et al. 2005; Ajmal & Koskinen 2008). Within the domain of knowledge management, researchers and practitioners have considered a broad array of theoretical questions, strategic issues, and technical approaches, including installation of groupware and the fostering of collaboration (Massey & Montoya-Weiss 2006). Despite the significant role of knowledge both in achieving the goals of the KM process and in developing KM culture (Gold et al. 2001; Bock et al. 2005; Pirkkalainen & Pawlowski 2013; Eaves 2014), to date, few studies have attempted to

investigate individuals' knowledge management intention from the perspective of organizational culture and KM culture.

Rather than consisting of a single dimension, organizational culture is multidimensional (including *results-oriented, tightly-controlled, job-oriented, closed system, solidarity, sociability, need for achievement* and *strong* cultures) (Hofstede 1990; Eaves 2014), with the higher level culture (e.g., organizational culture) impacting on the lower level (e.g., group culture) (Mason & Pauleen 2003). Therefore, this study explores the following questions: (1) Is the impact of organizational culture on the KM intention of the individual in the KM process mediated through KM culture? (2) What is the role of a *strong* culture in the KM process? Thus, the objective of this study is to explore the relationship between organizational culture, KM culture and an individual's KM intention in the KM process, and to clarify the relationship between 8 dimensions of organizational culture and KM culture in order to understand the effect of KM culture on an individual's KM intention in the KM process.

2. THEORETICAL BACKGROUND AND HYPOTHESES

2.1 Organizational Culture and KM Culture

Knowledge is embedded in context and practice (Brown & Duguid 2000; Pawlowski & Bick 2012). Thus, in order to understand KM, it is necessary to consider the source, channel, and recipient of knowledge and how these influence the ways in which individuals learn and behave in organizations (Sussman & Siegal 2003; Heisig 2009). For this reason, KM is not an objective, discrete and independent phenomenon occurring within organizations; rather, it is heavily influenced by the social settings in which it is embedded and is subject to various interpretations based upon organizational norms and social interactions among individuals (Alavi et al. 2005-6).

An additional issue to be considered when exploring the influence of social settings on KM is the variation in impact of different levels of culture. That is to say, culture can be defined at the national, organizational, group or team levels. Moreover, there is a causal relationship between higher and lower level cultures; specifically, a higher level culture will impact on a lower level culture (e.g. national culture will impact on organizational culture; and organizational culture will impact on group culture) (Mason & Pauleen 2003). On this basis, the KM culture is a powerful predictor of individual knowledge sharing behavior (Mason & Pauleen 2003). On that basis, creation of a knowledge sharing culture requires an organizational environment in which people are encouraged to work together more effectively, to collaborate and share, and ultimately to make organizational knowledge more productive (Gold et al. 2001; Tan et al. 2009; Lin & Dalkir 2010). Knowledge sharing culture is based on the KM needs and behaviors of individuals in the organization; in other words, employees working in the KM lifecycle determine the KM culture through the organizational culture (Kayworth & Leidner 2003; Alavi et al. 2005-6). For this reason, the values of the organization play a large part in creating the KM culture (Gold et al. 2001). If an organization has

the values of transparency and trust, knowledge sharing will take place more readily (Kayworth & Leidner 2003; Leidner & Kayworth 2006).

At the same time, KM culture differs from organizational culture in that KM culture emphasizes individual behavior combined with KM (Kayworth & Leidner 2003; Alavi et al. 2005-6; Rasoulinezhad 2011). Therefore, KM culture refers to particular values and beliefs pertaining to KM itself and what constitutes appropriate or inappropriate behaviors regarding KM activities (Jarvenpaa & Staples 2001). Kayworth and Leidner (Kayworth & Leidner 2003) argue that similar KM culture can exist in dissimilar organizational culture. KM culture varies according to whether individuals regard knowledge (and information) as belonging to the organization or to themselves (e.g., organizational versus individual ownership of information) (Jarvenpaa & Staples 2001). Thus, in any system where individuals are expected to voluntarily contribute their personal knowledge, KM culture will play a significant role in the quality and quantity of knowledge exchanged (Gold et al. 2001; Leidner & Kayworth 2006).

The **behavioral perspective** focuses on culture as defined by actual work practices (Hofstede et al. 1990). Therefore, an organization that has a more *results, open system, and loosely controlled* culture will facilitate knowledge management (Kayworth & Leidner 2003). In contrast, the **value perspective** of culture as presented by Goffee and Jones (1996) places emphasis on the sub-consciousness thoughts, beliefs, underlying assumptions, values, and cognitions that are invisible in the organization as the grounded foundations of culture (*solidarity, sociability, need for achievement* culture) closely associated with knowledge management (Jarvenpaa & Staples 2001). In light of this, organizational culture including *results-oriented, open system, employee-oriented, loosely controlled* (Kayworth & Leidner 2003), *solidarity, sociability* and *need for achievement* (Jarvenpaa & Staples 2001) in nature will facilitate the building of a KM culture. On the basis of the above discussion, our first hypothesis is as follows:

The *results-oriented* culture respects employees' individual preferences, and so tends to encourage individuals to innovate in order to create (Kayworth & Leidner 2003; Wei 2005), to contribute (Alavi et al. 2005-2006), and to transfer and apply knowledge (Kayworth & Leidner 2003) in the KM process (Chang & Lin 2012). Therefore, the *results-oriented* culture will have a positive impact on the organization's ability to foster a KM culture in the KM process. On the basis of the above discussion, the first sub-corollary of Hypothesis 1 is as follows:

H_{1a}: A *results-oriented* culture has a positive effect on the organization's ability to foster a knowledge management culture in the KM process.

A *tightly controlled culture* tends to have a negative influence on knowledge creation (Brockman & Morgan 2003; Kayworth & Leidner 2003; Norman 2004), transfer (Eskerod & Skriver 2007; Ajmal & Koskinen 2008) and application (Kayworth & Leidner 2003; Wei 2005) for the achievement of organizational goals (Alavi et al. 2005-2006; Chang & Lin 2012). Consequently, the values of a

tightly controlled culture will have a negative impact on the organization's ability to foster a KM culture in the KM process. This leads to the second sub-corollary of Hypothesis 1:

H_{1b}: A *tightly controlled* culture has a negative effect on the organization's ability to foster a knowledge management culture in the KM process.

The lack of a knowledge transfer context, "personal ties" or "caring relationships" among organizational members has been associated with knowledge transfer failure (Yuan et al. 2006). Therefore, as the relationship between employees in a *job-oriented* culture is cold, with individuals being unwilling to share knowledge with others (Kayworth & Leidner 2003; Brockman & Morgan 2003; Wei 2005; Woodman & Zade 2011), it is difficult for an organization to cultivate a KM culture in the KM process. This leads to the third sub-corollary of Hypothesis 1:

H_{1c}: A *job-oriented* culture will have a negative effect on the organization's ability to foster a knowledge management culture in the KM process.

A *closed system* culture is distrustful of outsiders, permitting only inner circle interaction and being resistant to communication with others (Hofstede 1990). Therefore, a *closed system* culture has a negative impact on knowledge transfer (Kayworth & Leidner 2003; Alavi et al. 2005-2006; Norman 2004; Ajmal & Koskinen 2008) and absorption and application of new knowledge (Kayworth & Leidner 2003). It follows, therefore, that a *closed system* culture makes it difficult for an organization to foster a KM culture in the KM process. This leads to the fourth sub-corollary of Hypothesis 1:

H_{1d}: A *closed system* culture has a negative effect on the organization's ability to foster a knowledge management culture in the KM process.

Solidarity is associated with unarticulated and unquestioned reciprocity (Goffee & Jones 1996). Employees who perceive their organizational culture to have a high degree of *solidarity* are more likely to believe in organizational ownership of information and knowledge; consequently, making it is easy for the organization to foster a KM culture in the KM process (Jarvenpaa & Staples 2001; Woodman & Zade 2011). This, then, leads to the fifth sub-corollary of Hypothesis 1:

H_{1e}: A *solidarity* culture has a positive effect on the organization's ability to foster a knowledge management culture in the KM process.

Sociability is a measure of sincere friendliness among community members. *Sociability* fosters teamwork and an environment in which individuals go beyond the requirements of their jobs to help their community succeed (Hofstede et al. 1990). *Sociability* is also associated with openness, which should mean a reduced tendency for individuals to want to control information and use it to build their personal power bases. Care for others in the immediate organization may increase belief in organizational ownership of information (Jarvenpaa & Staples 2001; Alam et al. 2009; Woodman & Zade 2011). In light of this, we believe that an organization with a *sociability* culture is better able

to foster a KM culture in the KM process to achieve its goals. This leads to the sixth sub-corollary of Hypothesis 1:

H_{1f}: A *sociability* culture has a positive effect on the organization's ability to foster a knowledge management culture in the KM process.

Need for achievement focuses on the importance placed in the organization on advancement and prestige (Hofstede et al. 1990; Scholz 1990). An immediate organization with a culture reinforcing the *need for achievement* might breed stronger organizational commitment and pride and therefore increase the likelihood of an individual attributing more ownership rights to the organization (Jarvenpaa & Staples 2001). Employees who perceive their organizational culture to be high in terms of *need for achievement* are more likely to believe in organizational ownership of information and knowledge. As a consequence, the organization is better able to cultivate a KM culture in the KM process (Jarvenpaa & Staples 2001; Woodman & Zade 2011), which leads to the sixth sub-corollary of Hypothesis 1:

H_{1g}: A *need for achievement* culture has a positive effect on the organization's ability to foster a knowledge management culture in the KM process.

2.2 The Strong Culture - KM culture - KM Intention relationship

The most elegant of the culture/performance perspectives, and the one most widely reported, associates "*strong*" culture with excellent performance. Smart and John (1996) defined *strong* culture as congruence between espoused beliefs and actual practices. In a *strong* culture, virtually all managers share relatively consistent values and methods of doing business. Firms with strong culture is usually seen by outsiders as having a certain "style" - the way of doing things (Dennison 1990). Therefore, an organization with a *strong* culture places emphasis on effectiveness and argues that a shared system of beliefs, values, and symbols, widely understood by its members, has a positive impact on their ability to reach consensus, to carry out coordinated actions (Alam et al. 2009) and to improve the firm's performance (Sørensen 2002).

In light of this, an organization with a *strong* culture has highly committed employees, key central values, a distinctive method of doing business, and a tendency to promote from within. Moreover, employees have close relationships as well as shared beliefs and values about organizational effectiveness (Siehi & Martin 1990; Sørensen 2002). In a firm with a *strong* culture, employees tend to march to the same beat (Siehi & Martin 1990; Alam et al. 2009; Woodman & Zade 2011). *Strong* culture is also often said to enhance business performance because they create an unusual level of motivation in employees (commitment, loyalty, involvement in decision making) (Sørensen 2002; Alam et al. 2009; Woodman & Zade 2011). On the basis of the above discussion, therefore, the following two sub-corollary **hypotheses** are made:

H_{2a}: A *strong* culture has a positive effect on the organization's ability to foster a knowledge management culture in the KM process.

H_{2b}: A *strong* culture has a positive effect on an individual's knowledge management intention in the KM process.

Cultural strength pertains to consistency and is often measured by the degree of variance in responses from people within the same unit (Dennison 1990). Therefore, a *strong* culture has much greater potential for implicit coordination and behavior control. As its members are well-socialized, the organization's effectiveness is improved through the healthy exchange of information and coordination of behavior (Alam et al. 2009). For this reason, a *strong* culture minimizes heterogeneity in beliefs about the state of the environment and consequently, enhances internal organizational performance reliability (Woodman & Zade 2011). In this type of environment, employees have the opportunity to contribute their knowledge and skill. In addition, a *strong* culture not only directly influences effectiveness outcomes, but has a moderating influence on effectiveness outcomes (Woodman & Zade 2011). Thus, we can infer that a *strong* culture moderates between KM culture and KM intention. This leads to the following sub-corollary:

H_{2c}: A *strong* culture has a moderating effect on KM culture and an individual's knowledge management intention in the KM process.

2.3 KM Culture and KM Intention

While KM should be built around existing organizational culture, it is argued that an organization with a KM culture has an important influence on an individual's KM intention (Kayworth & Leidner 2003; Lin & Dalkir 2010). An organization that has reward mechanisms where managers must produce evidence of knowledge management as part of their performance evaluations (Ranasinghe & Dharmadasa 2013) may be considered a good knowledge management culture for enhancing individuals' knowledge management intention in that organization (Kayworth & Leidner 2003). In view of this, an organization should have a knowledge management culture where it is also expected to influence individuals' knowledge management intention (Kayworth & Leidner 2003; Chow & Chan 2008; Ranasinghe & Dharmadasa 2013). On the basis of the above discussion, Hypothesis 3 is made as follows:

Hypothesis 3: A knowledge management culture has a positive effect on an individual's knowledge management intention in the KM process.

3. RESEARCH METHODOLOGY

The survey methodology, which is able to enhance generalization of results (Dooley 2001), was used to collect the data utilized in the testing of the research hypotheses. The survey measures for the study were derived from previous published studies and divided into three parts, including organizational culture, KM culture and KM intention of individuals in the KM process. To ensure its validity, the questionnaire was developed in two stages: **(1) First stage:** the questionnaire included: (A) thirty-five items relating to organization culture (including 3 items of *results-oriented*, 3 items of *tightly controlled*, 4 items of *job-oriented*, 3 items of *closed system*, 5 items of *solidarity*, 4

items of *sociability*, 4 items of *need for achievement*, 9 items of *strong culture*) adapted from Hofstede et al. (1990) and Smart & John (1996); (B) thirteen items relating to the KM culture, adapted from Gold et al. (2001); (C) three items relating to KM intention, adapted from Bock et al. (2005). **(2) Second stage:** 330 employees were selected as our subjects, from whom research data were collected. This study used a Likert-type scale, ranging from 1 = completely disagree to 7 = completely agree, to ascertain the opinion of each respondent. Data pertaining to factor and reliability analysis were used and some items were deleted to satisfy validity and reliability requirements.

The formal survey was conducted in Taiwan. Ranking second worldwide in terms of number of information technology (IT) companies with outstanding shareholder return and total revenue, Taiwan has fifteen IT companies included in the Business Week Information Technology Top 100 list. At the time of the study, a number of public and private organizations on that list were in the process of embarking upon KM activities. In order to maximize the survey response rate, researchers randomly telephoned the senior managers of a large number of institutions and companies, inviting them to complete questionnaires for the study. Upon acceptance of our invitation to participate in the study, the employees in the participating companies became our survey subjects. The companies in our sample included financial, medical, insurance, manufacturing, service, electronic, communications industries, public enterprises and institutions as well as other industries. A total of 330 samples were collected and 326 subjects (response rate: 98.78%) completed questionnaires. Among them, 315 (valid response rate: 96.626%) were considered valid responses. This high response rate is attributed to the use of a corporate representative/sponsor in the dissemination and collection of the survey instrument. Demographic analysis of the valid questionnaires is shown in Table 1.

Events	Contents	Sample	Percentage (%)	Events	Contents	Sample	Percentage (%)
Gender	(1) Male	194	61.6%	Length of work experience	(1) 1~3 years	75	23.8%
	(2) Female	121	38.4%		(2) 4~6 years	61	19.4%
Age	(1) 20-29	82	26%		(3) 7~9 years	49	15.6%
	(2) 30-39	166	52.7%		(4) 10~13 years	54	17.1%
	(3) 40-49	59	18.7%		(5) 14~17 years	25	7.9%
	(4) >= 50	8	2.5%		(6) 18~21 years	27	8.6%
Industry	(1) Financial	12	3.8%		(7) >= 22 years	24	7.6%
	(2) Medical	22	7%	Education	(1) High school	18	5.7%
	(3) Insurance	7	2.2%		(2) Junior college	53	16.8%
	(4) Manufacturing	54	17.1%		(3) Bachelor's	169	53.7%
	(5) Service	66	21.0%		(4) Master	74	23.5%
	(6) Electronics	25	7.9%		(5) Doctor	1	3%
	(7) Communications	26	8.3%	Married	(1) Yes	177	56.2%
	(8) Public institution	30	9.5%		(2) No	138	43.8%
	(9) Public enterprise	12	3.8%				
		(10) Other	61	19.4%			

Table 1: Sample Demographics

4. DATA ANALYSIS AND RESULTS

Reliability: the constructs are assessed for reliability using Cronbach alpha (Cronbach 1951). Chin (1998) suggested that a value of at least 0.70 indicates adequate reliability. Subsequently, the remaining constructs have adequate reliability, except for *results-oriented* (0.6983), although it is higher than Guelford's standard (1965). The composite reliability (CR) scores are used to measure

the internal consistency among the items of a given construct. The CR of all constructs in this study is above 0.8 (Fornell & Larcker 1981).

Validity: first, the scale validation is to assess convergent validity with the item-to-construct loadings for each construct measured with multiple indicators. In order to improve the item-to-construct loadings of the corresponding constructs, one item is omitted from the following construct: *results-oriented* (SL3: 0.463). Subsequently, the factor loadings of all constructs higher than 0.5 are accepted (Fornell & Larcker 1981). At the same time, as average variances extracted (AVE) are also over 0.5 (Fornell & Larcker 1981), we are confident that each dimension has good inner-construct consistency (Bearden & Kinsella 1993).

Second, discriminate validity is evaluated for the measurement scales using the indicator loadings for each construct that are higher than the cross-loadings for the indicators of other constructs. Moreover, as each indicator has a higher loading with its construct than cross-loading with any other construct, the study data provide evidence of the research constructs' discriminant validity (Chin 1998).

Organizational Culture

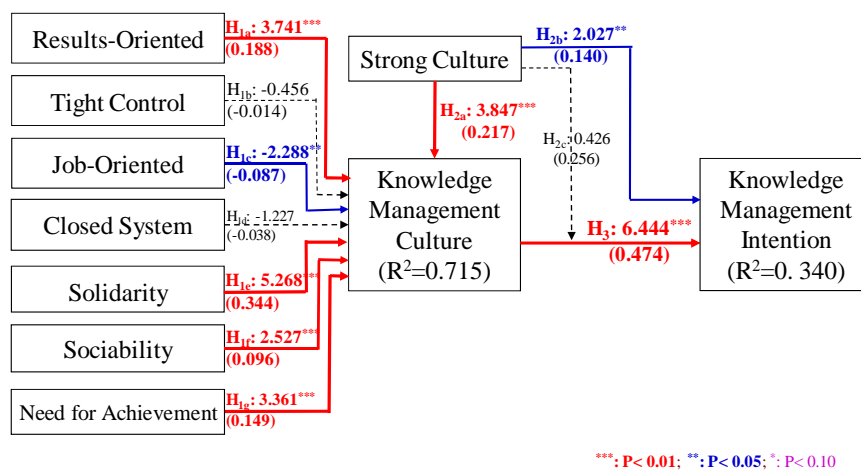


Figure 1: Results of Research Model

The statistical analysis method chosen for this study is Partial Least Squares (PLS) (Wold 1982). PLS employs a component-based approach for estimation purposes and places minimal restrictions on measurement scales, sample size, and residual distributions (Chin et al. 2003). PLS is thus chosen to accommodate the large number of constructs (Pavlou & Fygenson 2006). In addition, PLS is a second-generation multivariate technique used to estimate the parameters of a structural model. In this article, Figure 1 represents the structural model being examined, which describes the relationships or paths among theoretical constructs. Furthermore, for each construct in Figure 1, there is a related measurement model, which links the construct in the diagram to a set of items. Thus, PLS recognizes two components of model building: the measurement model and the structural model. The researcher first has to assess the measurement model, and then test for significant consistency in

the relationships between the constructs and the items used to measure them. It implies the examination of the convergent and discriminant validity of the research instrument, which indicates the strength of the measures used to test the proposed model. The structural model assesses the explanatory power of the independent variables, and examines the size and significance of the path coefficients. Together, the measurement and structural models form a network of measures and constructs (Fornell & Larcker 1981).

Next, the path significance in the research model is evaluated, and the variance explained (R^2 value) by each path examined. The significance and the relative strength of individual paths specified by the research model are also evaluated, as summarized in Figure 1

5. DISCUSSION

This study has found that a *results-oriented* culture has a significant positive effect on the organization's ability to foster a KM culture in the KM process ($t = 3.741^{***}$), a result that strongly supports hypothesis H_{1a} . Although Kayworth & Leidner (2003) asserted that a *results-oriented* culture might not be conducive to the effective storage of knowledge in the KM process and has a negative impact on the organization's ability to foster a KM culture, they did not prove their assertion with survey data. The current study not only refutes their assertion, but also confirms that the *results-oriented* culture indeed has a significant positive effect both on: (1) an individual's intention to create, store and transfer their knowledge to the organization and to apply organizational knowledge in the KM process (Chang & Lin 2012); and (2) the organization's ability to foster KM culture (Ajmal & Koskinen 2008; Alavi et al. 2005-2006; Wei 2005). These findings suggest that a *results-oriented* culture should encourage employees to contribute their knowledge without the motive of self-interest. This type of culture also makes easier the fostering of a KM culture in the organization (Eskerod & Skriver 2007; Ajmal & Koskinen 2008).

This study has found that a *job-oriented* culture has a significant negative effect on organization to foster a KM culture in the KM process ($t = -2.288^{**}$), a result that supports hypothesis H_{1c} . The result confirms that in a *job-oriented* culture, employees are not willing to contribute their own knowledge (Davenport & Prusak 2000; Jarvenpaa & Staples 2001; Alavi et al. 2005-2006; Woodman & Zade 2011). Thus, our findings suggest that a *job-oriented* culture is an environment which does not promote a KM culture for the organization in the KM process (Eskerod & Skriver 2007; Ajmal & Koskinen 2008; Woodman & Zade 2011). Not only is this result inconsistent with the finding of Jarvenpaa and Staples (2001), namely that a *job-oriented* culture is more likely to promote beliefs about the organization's ownership of information and knowledge, but it also suggests that such a culture impedes the organization's cultivation of a KM culture in the KM process. In contrast, Chang and Lin (2012) have found that a *job-oriented* culture has a significant positive effect on an individual's intention to create, store and transfer their knowledge and to apply organizational knowledge in the KM process. This provides an important lesson for management in the value of

tempering the degree to which the organization culture is *job-oriented* so as to create an environment that encourages the individual to willingly contribute their knowledge without hindering the development of a KM culture in the KM process.

A *solidarity* culture has been found to have a significant positive effect on the organization's ability to foster KM culture in the KM process ($t = 5.268^{***}$), a result that supports hypothesis H_{1e} . As this type of culture provides an environment in which it is easy for employees to believe that their knowledge belongs to the organization rather than to themselves (Jarvenpaa & Staples 2001; Woodman & Zade 2011), employees will consider it their duty to have the best interests of the organization as their top priority. Thus, the beliefs and behavior of employees assists the organization in fostering a KM culture in the KM process.

A *sociability* culture has a significant positive effect on the organization's ability to foster a KM culture in the KM process ($t = 2.527^{***}$), a result that supports hypothesis H_{1f} . As a *sociability* culture fosters teamwork and employees' desire for success in their work (Hofstede et al. 1990; Alam et al. 2009; Woodman & Zade 2011), employees tend to care for others, which helps to promote a harmonious work environment. For this reason, the higher the degree of the *sociability* culture dimension, the greater the employees' willingness to contribute their knowledge to the organization. Such willingness makes it easier for the organization to develop a KM culture in the KM process. This result provides further support for the finding of Jarvenpaa and Staples (Jarvenpaa & Staples 2001).

This study has found that a *need for achievement* culture has a significant positive effect on the organization's ability to foster a KM culture in the KM process ($t = 3.361^{***}$), a result that supports hypothesis H_{1g} . In the *need for achievement* culture, employees perceive their organization in terms of advancement and prestige (Hofstede et al. 1990; Scholz 1990), which leads to stronger organizational commitment and pride (Jarvenpaa & Staples 2001; Woodman & Zade 2011). For this reason, employees treat KM as their personal responsibility and are willing to achieve the KM goal. Therefore, in an organization that has the *need for achievement* culture, there is increased willingness for employees to contribute their knowledge to the organization, making easier the cultivation of a KM culture in the KM process.

The Strong Culture, KM culture and KM Intention Relationship: It has been found that a *strong* culture has a significant positive effect on the organization's ability to foster a KM culture in the KM process ($t = 3.847^{***}$), a result that supports hypothesis H_{2a} . An organization with a *strong* culture places considerable value on effectiveness and argues that a shared system of beliefs, values, and symbols, widely understood by an organization's members, has a positive impact on their ability to reach consensus and carry out coordinated actions (Alam et al. 2009; Woodman & Zade 2011). For this reason, a *strong* culture increases employees' willingness to contribute their knowledge to the organization, which makes it easier for the organization to cultivate a KM culture in the KM process.

This study has found that a *strong* culture has a significant positive effect on an individual's KM intention in the KM process ($t = 2.027^{**}$), a result that supports hypothesis **H_{2b}**. As an organization with a *strong* culture consists of highly committed employees, key central values, a distinctive method of doing business, and a tendency to promote internally, employees have close relationships as well as shared beliefs and values relating to organizational effectiveness (Siehi & Martin 1990; Sørensen 2002; Alam et al. 2009; Woodman & Zade 2011). Consequently, a *strong* culture increases the likelihood of employees being willing to manage knowledge in the KM process. The study finds that while a *strong* culture does not play a moderating role in KM culture and an individual's KM intention, it does have a significant positive direct effect on KM culture (**H_{2a}**) and on an individual's KM intention (**H_{2b}**).

A knowledge management culture has a positive effect on an individual's knowledge management intention in the KM process (H₃): As an organization with a reward mechanism where managers must produce evidence of knowledge management as part of their performance evaluations (Alavi et al. 2005-2006), an organization with a higher degree of KM culture will encourage individuals' KM intention in that organization (Kayworth & Leidner 2003; Chow & Chan 2008; Lin & Dalkir 2010; Ranasinghe & Dharmadasa 2013).

6. IMPLICATIONS

Academic Implications: Firstly, this study confirms that a *results-oriented* culture not only helps the organization to foster a KM culture, but also improves an individual's intention to create, store, transfer and apply knowledge in the KM process. Both of these results confirm the assertions of Kayworth and Leidner (2003), and Chang and Lin (2012). Moreover, our results confirm that *solidarity*, *sociability*, and *need for achievement* cultures are helpful in cultivating KM culture for organizations in the KM process. The results also confirm the perspective of Jarvenpaa and Staples (2001) on these issues. Secondly, the result of **H_{1c}**, namely that a *job-oriented* culture inhibits the organization's ability to foster a knowledge management culture, is consistent with the study of Jarvenpaa and Staples (2001). At the same time, we have found that a job-oriented culture has a significant positive effect on an individual's intention to create, store, and transfer their knowledge and apply organizational knowledge in the KM process (Chang & Lin 2012). This could be due to the fact that although a *job-oriented* culture enhances employees' knowledge management intention, this may be achieved through coercion by the organization rather than through employee willingness. In light of this, an organization with a *job-oriented* culture is likely to have difficulty fostering a KM culture in the KM process. Thirdly, the study demonstrates that not every dimension of culture is of value in the KM process. The *tightly controlled* (**H_{1b}**) and *closed system* (**H_{1d}**) cultures have no significant effect on the organization's ability to foster a KM culture in the KM process. Moreover, the *closed system* culture neither improves an individual's KM transfer and application intention (Chang & Lin 2012), nor helps the organization to cultivate a KM culture. Consequently, we have found that a *closed system* culture is not important in the KM process. Finally, although a *strong*

culture can both improve employees' willingness to contribute their knowledge to the organization and assist the organization in developing a KM culture, it does not play a moderating role in terms of organizational KM culture and an individual's intention to manage knowledge in the KM process. This finding may result from the fact that the study data show high levels of *strong* culture, KM culture, and individual's KM intention.

Implications for Management Practice: Firstly, management is advised to foster and maintain *results-oriented* and *solidarity, sociability, and need for achievement* cultures, as they will help their organization to foster the KM culture, which, in turn, will increase employees' willingness to manage knowledge in the KM process. Secondly, management should reduce the presence of a *job-oriented* culture in the organization in order to make the fostering of a KM culture easier for their organization. At the same time, however, management should be aware that a *job-oriented* culture enhances employee intention to create, store, transfer and apply knowledge (Chang & Lin 2012). Therefore, a challenge for management will be how best to leverage the level of *job-oriented* culture to foster their organization's KM culture on the one hand, without reducing employees' knowledge management intention on the other. To resolve this dilemma, management is advised of the importance of continuing to care for their employees and to create a harmonious working environment even in a *job-oriented* culture, to ensure that employees feel their contribution is valuable. At the same time, management should consider integrating employees' performance and rewards in the KM process. If a workable balance of these two elements is achieved, it will be easy for the organization to foster a KM culture even in a *job-oriented* culture. Thirdly, although this study has found that a *strong* culture strengthens the organization's ability to foster a KM culture and increases employees' willingness to manage knowledge, in an organization that does not support KM, a *strong* culture could interfere with and inhibit both cultivation of a KM culture and employees' knowledge management intention. However, in organizations that totally support KM but coerce their employees to behave in particular ways, a *strong* culture will be helpful in the cultivating of a KM culture. Finally, because KM culture has a significant positive effect on KM intention, management should understand that for the KM process to run smoothly, it is necessary first to foster particular cultural dimensions (*results-oriented* and *solidarity, sociability, and need for achievement*) before cultivating the KM culture, one consequence of which will be to increase employees' intention to manage knowledge.

7. CONCLUSION

It is important for management to develop knowledge procedures for valuing the intangible assets of the organization as well as for incorporating models of intellectual capital that in some way quantify the speed of KM before developing core competencies. Moreover, management should be aware that organizations with a KM culture also have employees with a strong intention to contribute their knowledge to organization, which, in turn, improves their work satisfaction and willingness to stay with the organization.

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