



The Role of Autonomous Motivation in the Relationship between Social Capital Dimensions and Tacit Knowledge Sharing among Academics

KHAWAR NAHEED^a AND ROSMAH MAT ISA^{b*}

^a*Department of Commerce, Bahauddin Zakariya University, Pakistan.*

^b*Faculty of Economics and Management, Universiti Kebangsaan Malaysia, Malaysia*

ABSTRACT

Tacit knowledge sharing is deemed to be important to increase the performance of academics whose job nowadays goes beyond teaching and research. Sharing of tacit knowledge is not easy as it involves human interaction such as good relationship, trust, collaboration, structure, and cognition; all that lies within the social capital. Apart from that, academics also need to be motivated in order to share their tacit knowledge in fulfilling their extended roles in administration, consultation and commercialisation. By taking an individual-level perspective, our study focuses on the role of social capital and autonomous motivation as critical human elements to improve and promote tacit knowledge sharing among the academics. Specifically, this study hypothesized: (a) positive relationships between social capital dimensions and tacit knowledge sharing, and (b) a mediation effect of autonomous motivation in the relationship between social capital dimensions and tacit knowledge sharing. To test the hypothesis PLS-Structural Equation Modelling statistical techniques was employed to analyse the survey data collected from 317 academics working in Malaysia research-based universities. Our results substantiate the positive links between social capital dimensions and tacit knowledge sharing, and reveal that autonomous motivation fully mediates these relationships. Theoretically, this study extends the understanding of the effect of autonomous motivation and the interrelationship between the three dimensions of SC and their joint effects on knowledge management practices. These findings provide university administrators with key implications for the management of social capital and autonomous motivation as catalysts to promote and enhance tacit knowledge sharing among the academics.

JEL Classification: D83, M19

Keywords: Knowledge Sharing; Tacit knowledge; Autonomous Motivation; Social Capital Dimensions; Malaysia

Article history:

Received: 4 February 2019

Accepted: 1 June 2019

INTRODUCTION

Tacit knowledge sharing (TKS) is defined in the present study as a sharing of ideas, expertise, experiences, and tips among employees within an organization (Lin, 2007). It has been recognised as a valuable intangible resource that can enhance organisational performance, and it is the key to gain competitive advantage for any organisation (Grant, 1996; Spender, 1996). Moreover, tacit knowledge is a strategic resource that enables organizations to benefit from their knowledge resources (Cabrera and Cabrera, 2005), allows employees to create new knowledge (Quinn, 1992), and to improve their performance (Dyer and Nobeoka, 2002). More importantly, it can unlock human potential to the fullest if employees share their knowledge among themselves (Dyer and Nobeoka, 2002). Therefore, employees are obliged to share their tacit knowledge in order to create new knowledge for the benefit of others (Vick et al., 2015).

Generally, knowledge has been perceived as important in the private sector, especially in business settings (Smith, 2014) but today it has taken a strong position in the public sector, particularly in the academic world. Universities constitute a true and unique context of knowledge sharing because of their main missions to disseminate and share knowledge (Fullwood et al., 2013; Landry et al., 2010). Nowadays, in research universities, academics do not only do the routine job of teaching and research, but they have moved towards engaging with the industry through consultation and commercialisation, apart from holding administrative functions. Hence, today's academic work is more challenging and requires them to compete with one another in producing good quality research, consulting, and having products and research commercialised (Altbach, 2007). In addition, as universities are the platform of knowledge creation (Vick et al., 2015), they are as important as business organisations (Smith, 2014), hence managing knowledge is gaining popularity as an issue of concern in the public sector, particularly in the academic world (Reinholt et al., 2011).

However, managing tacit knowledge is not an easy task. Many initiatives taken by companies fail because they neglect human factors such as social and individual factors in understanding TKS (Ryan and O'Connor, 2013). As tacit knowledge is highly personalised and human-based knowledge (Smith, 2001), it requires a person to be socially embedded in a network (Wang and Noe, 2010) in order to be able to share the knowledge. It is evident in previous literature that social capital is an important mechanism to give access to crucial resources available in other individuals. Social capital, which is conceptualised as the sum of the resources embedded in the relationships among individuals, acts as an enabler in the knowledge sharing process. This is further emphasised by Nahapiet and Ghoshal (1998) who argued that social capital, comprising three dimensions namely structural, relational, and cognitive, stimulates individuals to build relationships, communicate with others, and work together more effectively in achieving organisational goals. Hence, social capital is perceived as a catalyst to promote positive outcomes such as knowledge sharing (e.g., Hau et al., 2013; Hsu, 2015; Yu et al., 2013). Despite the importance of social capital, previous studies have either focus on only one or two dimensions of social capital (Lin, 2007). Hence, they have failed to provide adequate empirical evidence on how the interaction of social capital dimensions affects the network actors in sharing tacit knowledge.

Remarkably, social capital does not only create benefits but also is a source of individuals' motivations (Adler and Kwon, 2002). The existing studies have acknowledged that employee's sharing behaviour is 'not natural' (Bock and Kim, 2002) and due to the nature of tacit knowledge, people need to be motivated to share this type of knowledge (Reinholt et al., 2011). Motivation is considered as the central and primary driver in the knowledge sharing process, and hence, the lack of motivation may hamper this process (Osterloh and Frey, 2000; Szulanski, 1996; Wang and Hou, 2015). Thus, considering the indirect mediating effect of motivation is important in understanding the relationship between social capital and TKS.

However, previous researchers have concentrated on either intrinsic (Chou et al., 2014; Hau et al., 2013; Welschen et al., 2013) or extrinsic motivation (Bock et al., 2005) alone. Thus, it is difficult to determine which type of individuals' motivation is actually playing more roles in promoting TKS. We argue that a person possesses both type of motivations and they could possess more intrinsic and less extrinsic motivations or vice versa. Therefore, to fill this gap, we proposed on autonomous motivation, because this type of motivation enables someone to assess individuals based on their experience of a true sense of choice, independence, interest, and personal importance for a specific behaviour (Wang and Hou, 2015). In addition, autonomous motivation is emphasised as it provides autonomy support for specific behavior (Welschen et al., 2012) and enables to measure individual's motivation based on the relative degree of autonomy on the continuum of motivation

which varies from intrinsic motivation, identified regulation, integrated regulation, and extrinsic motivation (Ryan and Connel, 1989).

Underpinned by the Resource Based Theory (RBT) of Social Capital Theory and Self-Determination Theory (SDT), the present study intends to link social and individual factors for prompting TKS by examining the mediating role of autonomous motivation in the relationship between each of the dimension of social capital and TKS.

LITERATURE REVIEW

Social Capital Dimensions and Tacit Knowledge Sharing

The RBT of social capital posits that social resources are the relationships that develop through individual's social connections which constitute valuable resources that entitle them to get benefits in the form of exchanged resources (Nahapiet and Ghoshal, 1998). Social capital gives access to or exchange of resources such as knowledge, information, expertise, and insights (Wang and Wang, 2012). In the literature, it is argued that knowledge sharing, particularly tacit knowledge, is under the influence of individuals' social capital (Inkpen and Tsang, 2005; Lee and Choi, 2003). Hence, the higher the social capital, the more knowledge can be assimilated, shared, and transferred between the organizational members (Ferguson et al., 2013).

In addition, Hau et al. (2013) found a positive relationship of social capital with tacit knowledge sharing intentions among members of the Korean Advanced Institute of Science and Technology. The study of Yeon et al. (2015) found a significant relationship between relational and cognitive dimensions of social capital with knowledge sharing intentions in online communities. In a recent study, Göksel and Aydıntan (2017) found that three dimensions of social capital increase the tacit knowledge sharing intention among nursing students. Tsai and Ghoshal (1998) measured the impact of social capital on knowledge sharing and innovation. They found significant positive relationships between structural and relational dimensions of social capital on knowledge sharing. Other studies also found positive relationships between relational and cognitive dimensions of knowledge sharing (e.g., Hau and Kim, 2011; Hu and Randel, 2014; Yeon et al., 2015). Hence, this study hypothesized that:

H1a. There is a positive relationship between structural capital and TKS.

H1b. There is a positive relationship between relational capital and TKS.

H1c. There is a positive relationship between cognitive capital and TKS.

Social Capital and Autonomous Motivation

The SDT of motivation explains that individuals' relationships with others within the social circle fulfill their need for relatedness which in turn can influence their motivation to engage in activities (Deci and Ryan, 1985). Han et al., (2014) argued that in order to fully utilise the benefits of social capital in the form of tacit knowledge sharing, it is important to ensure that individuals are motivated. Previous studies claim that well-connected and more socially integrated individuals considered to be rich in social capital and may be intrinsically motivated or mostly autonomously motivated and enjoy helping others while sharing and transferring their knowledge (e.g., Reinholt et al., 2011; Yu et al., 2010). Extant literature also found a positive relationship between social capital and motivation (e.g., Gonçalez et al., 2013; Lin and Lu, 2011; Razee et al., 2012). For instance, Gonçalez et al., (2013) found a positive relationship between structural and cognitive dimensions of social capital and individual motivation among blood donors in Brazil. A systematic review by Okello and Gilson (2015) found that trust relationships encourage social interactions and cooperation among the health workers which in turn impact on their intrinsic motivation. It is evident that structural, relational, and cognitive dimensions of social capital are positively related with individual's motivations (DeFreese and Smith, 2013; Gonçalez et al., 2013). Based on these arguments, this study hypothesized that:

H2a. There is a relationship between structural capital and autonomous motivation.

H2b. There is a relationship between relational capital and autonomous motivation.

H2c. There is a relationship between cognitive capital and autonomous motivation.

Autonomous Motivation and TKS

The SDT of motivation proposes that individuals have several forms of autonomous motivation based on their relative autonomy for engaging in initiative-based behaviour such as knowledge sharing (Guay et al., 2010; Ryan and Connell, 1989; Wang and Hou, 2015). Autonomously motivated individuals carry out behaviour for their own sake without any force and coercion (Lesser and Storck, 2001). In autonomous motivation, individuals experience a true sense of choice and personal importance while engaging in specific behaviour (Grant et al., 2011; Wang and Hou, 2015).

Previous studies found a positive relationship between intrinsic motivation and knowledge sharing (e.g., Ma and Chan, 2014; Welschen et al., 2012) and a positive relationship between extrinsic motivation and knowledge sharing (e.g., Bock et al., 2005; Hu and Randel, 2014). There are also studies that propose and support the autonomous motivation in which the individuals are motivated with several forms of motivations based on the relative degree (e.g., DeFreese and Smith, 2013; Wang and Hou, 2015; Yeon et al., 2015). Accordingly, for this study, it is hypothesized that:

H3. There is a relationship between autonomous motivation and TKS.

Autonomous Motivation, Social Capital and TKS

The potential mediating role played by autonomous motivation in the relationship between social capital and TKS can be explained through RBT of social capital and SDT of motivation. The RBT of social capital argues that individuals' behavior is a product of their social capital that helps individuals to obtain benefits through mutual exchange of their knowledge resources (Chiu et al., 2006). The mediation effect of motivation can also be explained by the SDT of motivation, which proposes that autonomous motivation, based on several other forms of motivation, affects knowledge sharing (Foss et al., 2010). Previous studies have examined and confirmed the influence of social capital in facilitating knowledge sharing (e.g. Tsai and Ghoshal, 1998; Chiu et al., 2006; Cheung et al., 2011; Chang et al., 2012; Yeon et al., 2015) especially tacit knowledge sharing (e.g., Chow and Chan, 2008; Hau et al., 2016). Extant literature also have indicated that there are positive relationships between the different forms of motivation based on self-determined motivation and knowledge sharing (e.g., Gagne, 2009; DeFreese and Smith, 2015; Wang and Hou, 2015). Hence, this study hypothesized that:

H4. Autonomous motivation mediates the relationship between social capital and TKS.

METHOD

Sampling

The population of the current study is all academics working in five research-based universities in Malaysia, namely Universiti Malaya (UM), Universiti Kebangsaan Malaysia (UKM), Universiti Sains Malaysia (USM), Universiti Putra Malaysia (UPM), and Universiti Teknologi Malaysia (UTM). They were chosen because first, research-based universities in Malaysia account for basic research, which is one of the driving forces of industrial innovation (Abrizah and Wee, 2011). It is well argued that tacit knowledge is the key determinant for innovation and competitiveness (Gertler, 2003). Therefore, this type of knowledge is crucial and needs to be shared among the academics. Second, research-based universities focus on the construction and dissemination of knowledge especially tacit knowledge because it cannot be easily accessed in the market and hence academics need to jointly share their tacit knowledge to get maximum benefits from co-workers (Fullwood et al., 2013; Tangaraja et al., 2015).

The respondents of the present study include Muslim professors, associate professors, assistant professors, senior lecturers, and lecturers working in these research-based universities. There is no standard database available on Muslim academics working in those universities. Therefore, in identifying the sample, the required information is obtained from each university's website based on the names of the respondents. The questionnaire was distributed through personal visit due to the respondents nearly located and approachable. Out of 750 questionnaires, 387 questionnaires were returned and 315 were used for further analysis.

Measures

Social capital was measured through structural, relational, and cognitive dimensions. Structural dimension was measured through social interaction ties, closure, and frequency of contacts. The measures for social interaction ties was adapted from Chiu et al. (2006), closure from Flynn et al. (2010) and frequency of contacts from Hansen (1999). The measures for relational dimension measures for trust is adapted from Chow and Chan (2008) and Chiu et al. (2006) and collaboration from Sveiby and Simons (2002). Cognitive dimension measures for shared values are adapted from Yang and Farn (2009), shared vision and shared languages from Chiu et al. (2006). All the measures for social capital dimension are reliable with reported Cronbach's alpha of more than 0.70 (e.g. Chiu et al., 2006; Chow and Chan, 2008). The measures for autonomous motivation were adapted from Ryan and Connell (1989) and Roth et al., (2007) with Cronbach's Alpha ranging from 0.6 to 0.8. The measures for tacit knowledge sharing are adapted from Lin (2007) and the Cronbach's alpha is more than 0.70. To measure social capital, the current study used five-point Likert scale while autonomous motivation and tacit knowledge sharing utilized seven-point Likert scale.

Calculation for Autonomous Motivation

Autonomous motivation was treated as an overall index based on a relative autonomy index (RAI) weighting system (Guay et al., 2010; Soufi et al., 2014) as follow.

$$\text{RAI} = (\text{Intrinsic Motivation} * 3) + (\text{Identified Regulation} * 1) + (\text{Integrated Regulation} * -1) + (\text{Extrinsic Motivation} * -3)$$

Data Analysis

PLS-SEM was used to test the significance of hypothesis through running PLS algorithm and bootstrapping procedure on full model and the results for measurement and structural model were obtained for constructs. The mediation analysis was tested through PLS.

RESULTS

Demographics Information

The researchers analysed the descriptive statistics of the main study and gained more insight and understanding of the demographic information of the respondents. The number of cases used for main analysis was 315 from five Malaysian research-based universities. Table 1 shows that there were 59.40 per cent female respondents and 40.60 per cent male respondents. Majority of respondents were 36 years old and above. Almost 92 per cent of the respondents were Malays and the majority of the respondents (64.13 per cent) were lecturers and senior lecturers. In terms of education, most of the respondents (80 per cent) were PhD holders.

Table 1 Demographic Information about Respondents in the Main study

Demographic characteristics		No. of responses	(%)
Gender	Male	128	40.60
	Female	187	59.40
Age	Below 25	3	0.95
	25-35	56	17.78
	36-45	125	39.68
	46-55	91	28.89
	more than 55	40	12.70
Ethnicity	Malay	289	91.75
	Chinese	7	2.22
	Indian	2	0.63
	Others	17	5.40
Academic Position	Professor	33	10.48
	Associate Professor	73	23.17
	Assistant Professor	7	2.22
	Senior Lecturer	159	50.48

Table 1 Cont.

Demographic characteristics		No. of responses	(%)
Length of Service	Less than 5 years	75	23.81
	5-10 years	65	20.63
	11-15 years	63	20.00
	16-20 years	30	9.52
	21-25 years	35	11.11
	More than 25 years	47	14.92
Academic Status	PhD	252	80.00
	Master	61	19.37
	Others	2	0.63

Measurement Model

The measurement model of the study is reported the indicator reliability, internal consistency reliability, convergent validity, and discriminant validity of the constructs. The results for indicators reliability indicated a satisfactory reliability except for item 5 (0.5669) from structural dimension and item 7 (0.4195) from relational dimension. After deleting items 5 and 7, AVE for structural dimension increased from 0.5065 to 0.5753 and relational dimension increased from 0.5792 to 0.6497. The indicators loadings for tacit knowledge sharing were all above 0.90 which showed strong reliability. The results indicated a satisfactory convergent validity with smallest loading of 0.6693. Extant literature has suggested the use of “Composite Reliability” to measure internal consistency reliability (Hair et al., 2012). The values for composite reliability are greater than 0.60 among all three latent constructs (see Table 2) indicated high levels of internal consistency reliability. All of the Average Variance Extracted (AVE) values are greater than the acceptable threshold of 0.50 that confirmed the convergent validity.

Table 2 Results Summary for Measurement Model Results

Constructs	Indicators	Loadings	Indicators Reliability	Composite Reliability	AVE
Structural Dimension	SC1	0.8010	0.8951	0.8435	0.5753
	SC2	0.7496	0.8658		
	SC3	0.8061	0.8978		
	SC4	0.6693	0.8181		
Relational Dimension	SC6	0.8646	0.9298	0.9174	0.6497
	SC8	0.7559	0.8695		
	SC9	0.8139	0.9022		
	SC10	0.8012	0.8951		
	SC11	0.8255	0.9086		
	SC12	0.7703	0.8777		
Cognitive Dimension	SC13	0.7948	0.8915	0.927	0.6452
	SC14	0.8261	0.9089		
	SC15	0.8427	0.9179		
	SC16	0.8137	0.9021		
	SC17	0.8384	0.9156		
	SC18	0.7628	0.8734		
	SC19	0.7385	0.8594		
Autonomous Motivation	RAI				
Tacit Knowledge Sharing	TKS1	0.9576	0.9786	0.9826	0.9339
	TKS2	0.9775	0.9887		
	TKS3	0.9756	0.9877		
	TKS4	0.9545	0.9769		

The discriminant validity was assessed through Fornell and Larcker (1981) criteria and through Algorithm technique. The discriminant validity was satisfactory as the AVE from the construct was greater than the variance shared by the same construct and other constructs in the model (Chin, 2010).

Table 3 Fornell-Larcker Criterion Analysis for Checking Discriminant Validity

	AM	CD	RD	SD
AM	Single item based on RAI			
CD	0.8032			
RD	0.5677	0.8100		
SD	0.5291	0.6946	0.7619	
TKS	0.5500	0.692	0.6886	0.9664

Note: AM= Autonomous Motivation CD= Cognitive Dimension RD=Relational Dimension SD=Structural Dimension TKS= Tacit Knowledge Sharing

In addition, the results of common method bias by using Harman’s single-factor test. The results of Harman’s single factor test showed that the variance explained by each item varied from 0.100 to 35.507. This indicated that there is no issue of common method biasness in the current study.

Structural Model

The result of structural model showed that three dimensions of social capital namely structural dimension ($\beta = 0.1973$; $t=5.7866$), relational dimension ($\beta = 0.2097$; $t = 4.2206$), and cognitive dimension ($\beta = 0.2949$; $t = 6.2559$) have significant positive relationship with tacit knowledge sharing. Furthermore, structural dimension ($\beta= 0.1805$, $t=4.8414$), relational dimension ($\beta=0.2146$, $t=4.5621$), and cognitive dimension ($\beta=0.2664$, $t=6.2892$) have significant positive relationship with autonomous motivation. The analysis also revealed that autonomous motivation has significant positive effect on tacit knowledge sharing ($\beta = 0.1598$; $t=5.9663$). The coefficient of determination values for endogenous constructs (36.80% and 56.41%) indicated a moderate model’s predictive accuracy (Cohen, 1992).

Table 4 Results of Path Coefficient (β)

Hypothesis	Relationships	B	SD	T -Statistics	P-Value	Decision
H1	SD -> TKS	0.1973	0.0341	5.7866*	0.0000	Supported
H2	RD -> TKS	0.2097	0.0497	4.2206*	0.0000	Supported
H3	CD -> TKS	0.2949	0.0471	6.2559*	0.0000	Supported
H4	SD -> AM	0.1805	0.0373	4.8414*	0.0000	Supported
H5	RD -> AM	0.2146	0.047	4.5621*	0.0000	Supported
H6	CD -> AM	0.2664	0.0424	6.2892*	0.0000	Supported
H7	AM -> TKS	0.1598	0.0268	5.9663*	0.0000	Supported

Note:* value is significant 1 % (all the t-statistics values > 2.58)

The effect size was calculated by the Cohen’s f^2 path model formula. The researchers estimated two path models to calculate effect sizes; in the first path model, R^2 calculated the hypothesised model as predicted by the full model, i.e. R^2 included, and second, the path model was calculated by eliminating the exogenous variable one by one i.e. R^2 excluded. Effect size for structural dimension was 0.330 (moderate), relational dimension 0.201 (moderate), cognitive dimension 0.193 (moderate) while for autonomous motivation was 0.599 (large). Moreover, predictive relevance was examined through running blindfolding procedure. The values obtained were 0.505 (tacit knowledge sharing) and 0.3591 (autonomous motivation) were greater than zero that indicated a smaller difference between the predicted and original values or substantive predictive relevance for endogenous construct (Vinzi et al., 2010).

Table 5 Cohen’s f^2 Path Model

Path	$R^2_{included}$	$R^2_{excluded}$	f^2	Effect Size
Full Model	0.564			
SD \rightarrow TKS	-	0.420	0.330	Moderate>0.15
RD \rightarrow TKS	-	0.476	0.201	Moderate>0.15
CD \rightarrow TKS	-	0.480	0.193	Moderate>0.15
AM \rightarrow TKS	-	0.303	0.599	High>0.35

The mediation of autonomous motivation between structural, relational, and cognitive dimensions of social capital and tacit knowledge sharing was examined by using Preacher and Hayes Process Macro in SPSS 20.0. The mediation macro was run by using 5000 bootstrapping procedure and confidence interval at 95 per

cent. The result indicates a partial mediation of autonomous motivation between structural, relational, and cognitive dimensions of social capital and tacit knowledge sharing. Table 6 reported direct effect (structural

dimension to tacit knowledge sharing) is 0.1973, (relational dimension to tacit knowledge sharing) is 0.2097 and (cognitive dimension to tacit knowledge sharing) is 0.294 with positive confidence interval values (not zero).

Table 6 Direct Effect

	Effect	SE	LLCI	ULCI
Direct effect of SD on TKS (c'1)	0.1973	0.0598	0.0797	0.3150
Direct effect of RD on TKS (c'2)	0.2097	0.0732	0.0657	0.3537
Direct effect of CD on TKS (c'3)	0.2949	0.0664	0.1642	0.4255

Table 7 reported indirect effect with the mediation of autonomous motivation between structural dimension and tacit knowledge sharing is 0.0288, between relational dimension and tacit knowledge sharing 0.0343, and between cognitive dimension and tacit knowledge sharing is 0.0426 with positive confidence interval values (not zero).

Table 7 Indirect Effect

	Effect	Boot SE	BootLLCI	BootULCI
Indirect Effect of AM between SD and TKS (a1*b)	0.0288	0.0146	0.0075	0.067
Indirect Effect of AM between RD and TKS (a2*b)	0.0343	0.0194	0.0053	0.0824
Indirect Effect of AM between SD and TKS (a1*b)	0.0426	0.0164	0.0169	0.0836

The VAF calculated value of the indirect effect for structural dimension was found to be 0.8726, which showed that 87.26 per cent of the total effect of structural dimension on tacit knowledge sharing was explained by autonomous motivation. VAF value for indirect effect for relational dimension .6073 which showed that 60.73 per cent of the total effect of the relational dimension on tacit knowledge sharing was explained by autonomous motivation. VAF value for indirect effects of cognitive dimension 0.8737 or which showed that 87.37 per cent, 9 per cent of the total effect of cognitive dimension was explained by autonomous motivation. Hence a partial mediation is found in the relationship between structural, relational, and cognitive dimensions of social capital and tacit knowledge sharing mediated by autonomous motivations.

DISCUSSIONS

Consistent with social capital theory and SDT of motivation, the findings indicates that there are positive relationships between structural, relational, and cognitive dimensions of social capital and tacit knowledge sharing; between structural, relational, and cognitive dimensions of social capital and autonomous motivation; and between autonomous motivation and tacit knowledge sharing. The first hypothesis supported the notion of social capital theory that social capital provides a platform where the pattern of social relationships such as social interaction, closure, and frequency of contacts (Chiu et al., 2006; Flynn et al., 2010) assist and facilitate individuals within a group to share and exchange their non-imitable tacit knowledge. The platform provide opportunities for others to share their tacit knowledge with whom they do not know and are reluctant to share their knowledge.

Moreover, the findings are also in line with the idea that the relational aspects of social capital such as trust and collaboration strengthens the quality of relationships within the social group. In collaborative environment, members can blend their ideas, experiences, and knowledge and can publish their work together. Relational capital is crucial and become a catalyst to assist the employees to share their tacit knowledge among the social group members. In addition, the finding is also supported that cognitive social capital represents through shared representation encourages individuals towards collective actions (Uphoff and Wijayaratra, 2000). These shared representations promotes mutual exchanging of ideas, facilitates the discussion of work related issues (Chow and Chan, 2008; Yeon et al., 2015), and offers active support to solve the issues such as accomplishment of common tasks and projects. For instance, when employees work together in a group or team, there is a possibility for them to be well-acquainted, build high quality relationships, and have common understanding in achieving their common goals which in turn increases their spirit of helping each other.

Although all social capital dimensions are found to be important in promoting tacit knowledge sharing, the results of this research revealed that the relational and cognitive dimensions have higher β (0.2097 and

0.2949 respectively) than the structural dimension (0.1973). The findings also highlight the importance of building and strengthening quality relationships through relational and cognitive dimensions in encouraging tacit knowledge sharing among academics, because these two dimensions contributed more to the social capital construct. However, the importance of structural dimension could not be neglected as social capital development requires a platform which is facilitated through the structural dimension. The structural dimension provides an opportunity where they build their relationship in a social circle and then strengthen through relational and cognitive aspects of social capital in order to share their tacit knowledge.

Another important finding of this research is that three dimensions of social capital are significantly related with autonomous motivation. This finding is consistent with SDT theory which argues that human motivation is influenced by their social relations which is related to the basic psychological need of relatedness. When their need for relatedness is fulfilled, it influences their autonomous motivation. Hence, autonomously motivated individuals can better utilize their social capital resources. More importantly, motivation is considered as the critical factor in knowledge sharing behaviour (Hau et al., 2013) and it becomes a central and primary driver in the knowledge sharing process. Thus, the lack of motivation may hamper the process of knowledge sharing (Osterloh and Frey, 2000; Szulanski, 1996) particularly tacit knowledge.

The mediation of autonomous motivation between social capital and tacit knowledge sharing is also supported by the RBT of social capital which claims that the benefits of social capital are only available when members in a social circle are motivated to share their knowledge (Adler and Kwon, 2002). In addition, the findings also supported the SDT of motivation. This theory argued that those individuals in a social relationship fulfilled their need to be related to others and it could be the source of their autonomous motivation which in turn helped them by sharing their knowledge, especially their tacit knowledge (Yeon et al., 2015).

IMPLICATIONS

Theoretically, the implication from this study is social capital theory can be used to explain the relationship between three dimensions of social capital and tacit knowledge sharing. More importantly, each dimension of social capital play a crucial role in the process of tacit knowledge sharing. Although social capital has been prescribed as a variable that should be considered in managing tacit knowledge sharing (Nahapiet and Ghoshal, 1998; Lin, 2007), the present study has provided further explanation in regards to the role of each dimensions of social capital on tacit knowledge sharing. Existing studies devoted less attention to the three dimensions of social capital and the focus was either on one dimension or on different aspects of the three dimensions of social capital in knowledge sharing (e.g., Yang and Farn, 2009; Yeon et al., 2015; Hsu, 2015). In addition, SDT theory has provided an alternative in understanding the role of autonomous motivation in promoting tacit knowledge sharing.

A lesson for university academics is that they need to acknowledge that tacit knowledge sharing is so important and cannot be neglected especially for research-based universities. With regard to social capital, a platform for structural capital is required and becomes a prerequisite for the academics to share their tacit knowledge. This platform can be in the form of research groups, mentoring programs, workshops, discussion and forum to serve as a place that may encourage and facilitate formal and informal interactions among the academics. This in turn develops trust and collaboration among them. In addition to social capital, the administrator has to focus on individuals' motivation in the knowledge management process and provide a workplace environment in which academics must have autonomy in doing their jobs. Thus, managers need to provide a participative platform that employs various methods to encourage academics to build and strengthen their relationship, and encourage and facilitates their autonomous motivation to promote tacit knowledge sharing among their colleagues.

However, this study has some limitations such as its use of the cross-sectional method, data being collected from single respondents, and emphasised only research-based universities. Future research should consider a longitudinal method, multiple informant approaches, and comparing public and private universities.

CONCLUSIONS

In conclusion, this study provides an understanding of human mechanisms by integrating social and individual factors in understanding tacit knowledge sharing among academics in Malaysian research-based universities. This study examines the mediating effect of autonomous motivation in the relationship between social capital dimensions and tacit knowledge sharing. Underpinned by RBT of social capital and the SDT of motivation, this study has made several findings; social capital dimensions are found to be positively related to tacit knowledge sharing, and autonomous motivation. Autonomous motivation partially mediate between social capital dimensions and tacit knowledge sharing.

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