

# Social Capital, Knowledge Sharing and Financial Performance

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This article aims to construct and empirically verify a model that demonstrates the association between social capital dimensions, knowledge sharing, and firm financial performance. For data collection, a questionnaire was delivered to medium and small enterprises (SMEs) across Ho Chi Minh City (HCMC) using convenience sampling. To verify the proposed relationships, the data collected from 298 SME finance managers were then examined using Structural Equation Modelling (SEM). Overall, explicit and tacit knowledge sharing are fostered as a result of all social capital dimensions. In a similar vein, both types of knowledge sharing influence firm financial performance. The study proposes a guide as to how firms should gain better financial performance by promoting social capital and knowledge sharing.

**Key words:** *Social capital, knowledge sharing, financial performance, SME, Vietnam.*

## Introduction

Social capital (SC) has been a key catalyst for firms to gain knowledge which ensures organisational performance (Yli-Renko, Autio, & Sapienza, 2001). Thanks to the increasingly important role of the knowledge economy in the current economic situation, knowledge becomes an invaluable asset to individuals and organisations. As a result, the process of individuals' sharing knowledge, including explicit and tacit ones, contributes to the overall knowledge of an organisation (Nahapiet & Ghoshal, 1998; Li, Montazemi & Yuan, 2006). Numerous studies have shown that SC strongly facilitates knowledge sharing (KS) (Ramasamy, Goh & Yeung, 2006; Wong et al, 2001), and KS, in turn, positively influences firm performance (Law & Ngai, 2008; Hsu, 2008; Terry Kim et al, 2013; Wang & Wang, 2012; Wang, Wang & Liang, 2014) and organisational performance (de Zubietaqui, Lindsay, Lindsay, & Jones, 2019; Grossman, 2007; Nakamura & Nakamura, 2004; Palacios-Marqués, Peris-Ortiz, & Merigó, 2013). However, very few attempts have been made to examine the linkages among SC, KS, and firm financial performance (FFP), giving rise to the following question: how do different SC dimensions influence sharing of tacit and explicit knowledge towards

better firm financial performance? To bridge this gap, this study seeks to examine the systematic relationships between SC, KS, and FFP, especially in the context of SME in Vietnam. Under the survey method, the research incorporated questionnaire responses from 298 SME middle and top managers across Ho Chi Minh City of Vietnam, which were then analysed using Structural Equation Modelling (SEM) to verify a series of proposed relationships.

Following this introduction, the second section presents a literature review and hypotheses development. The third section describes methodology. The fourth section presents the research results. The last section offers discussions, implications, and future research directions.

## **Literature Review and Hypotheses Development**

### ***Social capital and knowledge sharing (KS)***

Nahapiet and Ghoshal (1998), alongside Tsai and Ghoshal (1998), formulated an analytical framework for SC which is composed of three aspects: structural, cognitive and relational. All three aspects contribute to the positive impact of SC on KS (Chang & Chuang, 2011; He, Qiao, & Wei, 2009; Wei, Zheng, & Zhang, 2011). The structure aspect of SC is displayed through the networks of social connections (Manolova, Gyoshev, & Manev, 2007) as well as trust (Putnam, 2000) in an enterprise which allow individuals to locate and access resources, knowledge and experience of each other, thereby enhancing their willingness to communicate, interact and cooperate, including sharing knowledge (Arregle et al, 2007; Chung, Singh, & Lee, 2000; Gronum, Verreynne, & Kastle, 2012; Holste & Fields, 2010; Wu, 2008).

However, the crucial aspect of SC that enhances the sharing of tacit knowledge is the relational factor (Yanga & Farn, 2009). While explicit KS is easy to implement as guided by the enterprise's rules and regulation (Coakes, 2006; Huang, Davison, & Gu, 2011), the optional process of sharing tacit knowledge heavily depends on beliefs and especially interpersonal relationships (Lucas, 2005). Relational SC, therefore, is an important element which enables colleagues to easily exchange, share information, experiences and knowledge to work together, thereby bringing higher work efficiency for both individuals and business (Bennett & Ramsden, 2007; Chung, Singh & Lee, 2000; Gronum, Verreynne & Kastle, 2012; Miller, Besser & Malshe, 2007).

According to Nahapiet and Ghosal (1998), Chow and Chan (2008), Wu (2008), Hau et al. (2013), cognitive social capital (CSC) has a significant influence on individuals' KS. In an enterprise, employees who recognise the importance of working towards the common goal and are motivated by the desire to realise the corporate visions easily share documents, reports,

knowledge and experiences with each other (Arregle et al, 2007; Claridge, 2017). Therefore, our study proposes the following two hypotheses (H1a and H1b):

**H1a:** CSC has a positive influence on explicit knowledge sharing (EKS).

**H1b:** CSC has a positive influence on tacit knowledge sharing (TKS).

KS depends on individuals and their relationships with their organisations and work units (Wang, Wang, & Liang, 2014). The effect of the relational aspect is even clearer in TKS whereby knowledge is implicitly expressed through verbal expressions or actions, gestures, and depends on the context of sharing (Holste & Fields, 2010; Peet, 2012). Based on previous studies (Adler & Kwon, 2002; Granovetter, 1983; Nahapiet & Ghosal, 1998), Chow and Chan (2008), and Wu (2008) considered the relationship among colleagues in an organisation as a key factor determining the ability to share tacit knowledge. Previous studies (Bennett & Ramsden, 2007; Chow & Chan, 2008; Chung, Singh, & Lee, 2000) also proved that the relationships among individuals in the organisation positively influence the ability of sharing information, documents, reports, experiences and successes as well as failures. Based on the aforementioned studies, we constructed hypotheses H2a and H2b:

**H2a:** RSC has a positive effect on EKS.

**H2b:** RSC has a positive effect on TKS.

In another instance, the process of sharing and receiving knowledge is facilitated by the fact that colleagues in the business know each other's specialised knowledge and working experience (Chow & Chan, 2008; Nahapiet & Ghosal, 1998). In other words, in the process of working towards the common goal of the business, colleagues establish the relationship structure. In turn, that structure is reinforced, developed through proximity and trust (Carmeli & Azeroual, 2009; Wang, Wang, & Liang, 2014). The relationship structure facilitates the willingness of individuals in the business to share expertise, documents and information to each other (Hsu, 2008). Therefore, either EKS or TKS can be affected by the relationship structure in the enterprise. Thus, we formulated two further hypotheses:

**H3a:** Structural social capital (SSC) positively impacts EKS.

**H3b:** SSC positively impacts TKS.

### ***KS and Financial Performance***

Knowledge available in the firms enriches the knowledge capital which helps businesses to improve their competitiveness, business efficiency, and solve business problems in developing new products as well as reducing production costs (Hsu, 2008; Law & Ngai, 2008; Soekijad & Andriessen, 2003; Wang & Noe, 2010; Wang & Wang, 2012). Law and Ngai (2008) discovered

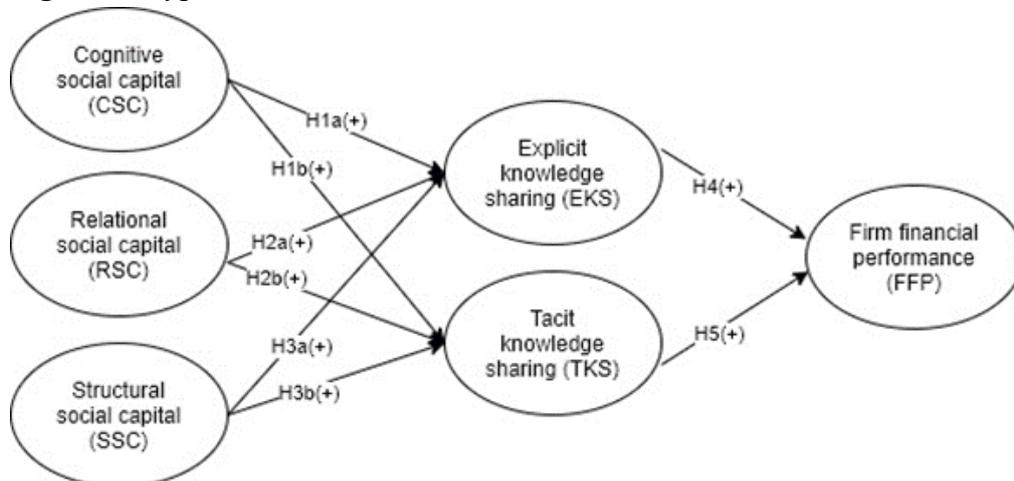
that sharing knowledge has a positive influence on the performance of a firm by leading to better products and services. Furthermore, KS has a knock-on effect on revenue, market share and profit (Du, Ai & Ren, 2007; Hansen, Mors, & Lovas, 2005; Hsu & Wang, 2008; Huang, Chen & Stewart, 2010; Zhang & Fung, 2006). Stam, Arzlanian and Elfring (2014) also demonstrated a positive effect between entrepreneurial SC on small-business efficiency thanks to cost savings, financial and non-financial resources. While the significant impact of KS on the performance of individuals and organisations in the knowledge economy is undeniable, the current literature only focused on an indirect relationship between KS and firm performance. To be specific, they only confirm the effects of KS on the innovations in developing new products, reducing costs and fostering employee performance, which in turn improve firm financial performance.

EKS is reflected in the approved sharing of documents and reports by colleagues in the business through the information technology systems that support the sharing and displaying process (Wang & Wang, 2012). TKS, on the other hand, is depicted as the sharing of knowledge gained from working process, experience (both success and failure), know-how, and the professional knowledge that individuals learned, analysed, and accumulated (Wang & Wang, 2012).

According to Hsu (2008), Law and Ngai (2008), Wang and Noe (2010), KS (implicitly or explicitly) in the process of working fosters professional knowledge, strengthens solving skills, and reduces the workload as well as the time and effort to complete the work, thereby helping businesses save resources and costs. Wang and Wang (2012) and Wang, Wang and Liang (2014) have concluded that KS improves financial efficiency. Accordingly, we formulated two hypotheses:

- H4. EKS positively impact on FFP.
- H5. TKS positively impact on FFP.

**Figure 1.** Hypothesised model





## **Methodology**

### ***Data Collection and Sample***

The present research adopted the questionnaire-based survey to verify the hypotheses with items adapted from previous validated studies. The target respondents were middle and top financial managers of SMEs in Ho Chi Minh City, the largest and busiest city in Vietnam. Prior to data collection, the questionnaire was piloted with a small, representative group of SME managers ( $n = 10$ ) using face-to-face interviews. The objective of this stage was to assess whether any items were too difficult to answer due to sentence length, wording, or special terminology, thus ensuring the construct validity of the questionnaire (Shadish, Cook, & Campbell, 2002). Four hundred questionnaires were distributed between November and December of 2019 to obtain primary data using convenience sampling method. Thanks to the pilot stage and clear instructions, the survey returned 298 valid responses, yielding a response rate of 74.5%. This high response rate reduced the possibility of response bias. All respondents are between 30 and 59 years old. Women account for 36% of the respondents, and men 64%.

### ***Measures***

All indicators are measured on a five-point Likert scale. In this scale, “1” signifies “strongly disagree” and “5” signifies “strongly agree.” All six construct measurement scales (Table 1) with 29 variables were adapted from the validated literature, including Nahapiet and Ghosal (1998), Wang and Wang (2012).

**Table 1: Constructs and their measurement items**

Construct	Code	Item	Standardised regression weights	SMC	Alpha	CR	AVE
Firm financial performance (FFP)	FFP_1	Compared to primary rivals, our return on investment is on average higher.	.734***	0.449	0.886	0.832	3.07
	FFP_2	Compared to primary rivals, our profit is on average higher	.744***	0.597			
	FFP_3	Compared to primary rivals, our profit growth is on average more solid	.774***	0.618			
	FFP_4	Compared to primary rivals, our return on sales is on average higher	.723***	0.553			
Cognitive social capital (CSC)	CSC_1	My fellows and I are always in agreement about what matters at work	.907***	0.855	0.932	0.934	3.83
	CSC_2	My fellows and I are keen to follow the common objectives and missions of the whole organisation	.888***	0.773			
	CSC_3	My fellows and I have the same vision and goals	.931***	0.848			
Relational social capital (RSC)	RSC_1	I feel like I am connected to my fellow members	.834***	0.676	0.896	0.879	3.88
	RSC_2	I know my fellows try and help me to overcome difficulties all the time	.837***	0.693			
	RSC_3	I will trust my fellows when I need help	.737***	0.547			
	RSC_4	I can rely on my fellows when in need	.799***	0.662			
Structural social capital (SSC)	SSC_1	I have a really positive working relationship with my fellows in general	.869***	0.765	0.876	0.896	3.91
	SSC_2	I am aware what skill/knowledge/ competence could be useful to which fellow member	.871***	0.782			
	SSC_3	My fellow members know what skill/ knowledge/ competence I have	.838***	0.680			
	SSC_4	I am aware which person within my organisation possesses the skill/ competence/ knowledge that is useful for me	.727***	0.513			
Explicit knowledge sharing (EKS)	EKS_1	My network members usually share documents and reports with each other.	.820***	0.667	0.918	0.919	4.02
	EKS_2	My network members usually share documents and reports that they prepare by themselves with each other.	.845***	0.702			
	EKS_3	My network members frequently collect documents and reports from each other for their work.	.795***	0.653			
	EKS_4	My network members are frequently motivated by the transfer of knowledge.	.811***	0.648			
	EKS_5	My network members are usually offered various professional development and training activities/programs.	.806***	0.651			
	EKS_6	My network members are supported by information technology systems made for exchanging/sharing of knowledge.	.772***	0.605			
Tacit knowledge sharing (TKS)	TKS_1	My department members often share or transfer experience-based knowledge.	.762***	0.586	0.943	0.943	3.89
	TKS_2	My department members often gather experience-based knowledge from others.	.853***	0.731			
	TKS_3	My department members often share or transfer procedural knowledge.	.895***	0.793			
	TKS_4	Members in my department often gather procedural knowledge from others.	.839***	0.696			
	TKS_5	Members in my department often share or transfer expertise-related knowledge.	.845***	0.715			
	TKS_6	Members in my department often gather expertise-related knowledge from others.	.820***	0.675			
	TKS_7	Members in my department will be happy to share lessons learned as necessary.	.852***	0.743			

Note: \*\*\* significant at p<0.001.

## Results

### *Measurement Model*

Of the 298 questionnaires completed, none of the items contained missing data. As presented in Table 1, all standardised regression weights are statistically significant at 0.001 level (Anderson and Gerbing, 1988). The critical ratios (CRs) range between 0.731 (cognitive SC) and 0.861 (relational SC) which are well above the threshold values (Fornell & Larcker, 1981). Additionally, all average variance extracted (AVEs) range between 0.533 (explicit KS) and 0.607 (relational SC) which surpass the 0.50 threshold (Fornell & Larcker, 1981), suggesting the convergent criteria were met. None of the correlations between constructs exceeded the square root of the AVE of each construct (see Table 2), suggesting satisfactory discriminant validity for all constructs (Fornell & Larcker, 1981).

Model fit statistics showed that the model achieved an excellent fit by empirical data. Specifically, chi-square  $\chi^2$  was 519.928 (df = 262, p = 0.000), CMIN/df was 1.984, SRMR was 0.038, CFI was 0.964, and RMSEA was 0.038. Therefore, it can be stated that the constructs in the model are not only valid and reliable but also distinguished from each other (Hu & Bentler, 1999).

**Table 2:** Results of discriminant validity

	Square root of AVE	TKS	EKS	SSC	RSC	FFP	CSC
TKS	0.839	1					
EKS	0.809	0.744***	1				
SSC	0.828	0.536***	0.516***	1			
RSC	0.803	0.453***	0.492***	0.311***	1		
FFP	0.745	0.552***	0.556***	0.394***	0.401***	1	
CSC	0.909	0.707***	0.689***	0.634***	0.531***	0.619***	1

Note: \*\*\* significant at the  $p < 0.001$  level.

### *Structural Model*

This step is to proceed with the structural model using maximum likelihood estimation. This verifies a series of hypotheses developed from the hypothesised model. Model fit indices showed that  $\chi^2$  was 718.892, p = 0.000 with 262 degrees of freedom. The  $\chi^2/df$  (2.121) lied between 1 and 3, indicating the suitability of the model (Hu & Bentler, 1999). The RMSEA was 0.057, SRMR was 0.048, while CFI was 0.948. The findings suggested the model yields

both incremental, and absolute goodness of fit as stated by Hu & Bentler (1999). All associations were statistically significant. Table 3 summarised the model results.

**Table 3:** Hypotheses validated results

Hypothesis	Proposed effects	Standardised regression weights	Results
H1a	Positive	0.536***	Confirmed
H1b	Positive	0.574***	Confirmed
H2a	Positive	0.177***	Confirmed
H2b	Positive	0.115**	Confirmed
H3a	Positive	0.130**	Confirmed
H3b	Positive	0.142**	Confirmed
H4	Positive	0.348***	Confirmed
H5	Positive	0.323***	Confirmed

Notes: \*\* and \*\*\* indicate significance at the  $p < 0.05$  and  $0.01$  levels.

## Discussion and Implications

### *Discussion*

Surprisingly, scant attention has been paid to systematically consider how KS may form a link between financial performance and SC both theoretically and empirically. To bridge this research gap, our study proposed a model delineating how different dimensions of SC enable KS, which then influences financial performance. The empirical findings largely support our proposed model by demonstrating that KS mediates between all three dimensions of SC and financial performance. Simultaneously, our results underline the importance of KS as both a primary benefit of SC, and a major driving force of financial performance.

Our results show that all three SC dimensions significantly influence both tacit and explicit knowledge sharing. While SC enhances both tacit and explicit KS, KS in turn is among the main mechanisms connecting SC to firm financial performance.

Similar to previous research that has studied the role of SC and KS (Saha & Banerjee, 2015; Wu, 2008), our study provides supporting evidence as regards the essential steps to be taken for SC to affect financial performance (Chen, Wang, & Wang, 2018). That is to say firm employees are encouraged to share the knowledge accumulated through their SC prior to any financial performance related to SC to be identified (Nguyen & Ha, 2020; Ha & Nguyen, 2020).

In contrast to previous studies that have examined the influences of SC with respect to network ties, trust and shared vision on information sharing (Saha & Banerjee, 2015), or network ties, relationship quality and social interaction on acquisition of knowledge, such as the work of

Yli-Renko et al. (2001), our research has conceptualised SC with respect to cognitive, relational, and structural dimensions (Chow & Chan, 2008; Nahapiet & Ghoshal, 1998) on both tacit and explicit KS. Our work bridges the research gap by constructing a model to illustrate the interactions between SC, KS and firm financial performance. In addition, it provides a more detailed conceptualisation of KS as tacit and explicit, and financial performance. Thus, our research model can be utilised as a new theoretical one in future studies to evaluate SC, KS and financial performance.

### ***Practical Implications***

Our analysis offers managers who deal with SC important insight. First, promoting sharing of knowledge (both tacit and explicit) is seen to be beneficial for firms. Managers are encouraged to develop suitable organisational culture, processes and structures as well as a reward system to promote such sharing. Such developments may be useful to employees in synthesising new knowledge and adopting both best practices and new behaviours. Individuals and teams may be rewarded as a result of sharing based on their improved performance. Second, because KS mediates the effects of SC on financial performance, it may be inadequate to simply encourage related activities in relation to SC. It is important that firm managers are well aware of the influence of SC on KS and financial performance, and invest in building mechanisms that enable KS to be properly channelled to achieve the intended levels of financial performance.

### ***Limitations and Future Research Directions***

There are inherent flaws in the analysis that require attention for future research. First, while our findings are consistent with previous reports, we have not been able to confirm the causal relationships suggested by using survey design. Longitudinal designs could be used for inferring causality in future studies. Second, our study generally used convenience sampling to sample SMEs at HCMC. Future study may be using a random sampling method and focusing on a particular industry to improve external validity and confirm our understanding.

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