

Risks in the Development of Social Capital of Hierarchical Relations:

A Study of Chinese Firms

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ABSTRACT

The unique role of social capital in economic activities has been increasingly recognized. However, previous research gives limited attention to the role of hierarchical relations in buttressing social capital in business society. Additionally, although it is widely recognized that social capital may produce social bad, little empirical research has been done on how the development of social capital may lead to social risk. To fill these gaps, this study addresses issues of social capital involving a hierarchical social structure.

Based on a survey in China, the findings of the study suggest that the interaction of bribery–corruption is positively related to the social capital of hierarchical relations. The high cost of firm is found to be negatively related to the development this type of social capital.

INTRODUCTION

In recent years, the unique role of social capital in economic activities has been increasingly recognized. It is believed that social capital influences career success (Gabbay and Zuckerman 1998), facilitates the value creation of production and team effectiveness (Tsai and Ghoshal 1998), is positively associated with firm performance (Peng and Luo 2000) and enhances innovation and reduces transaction costs for inter-firm collaboration (Robins and Atuahene-Gima 2003).

However, previous research gives limited attention to the role of hierarchical relations in buttressing social capital in business society (Uzzi 1997). Therefore despite being acknowledged as an important component in social capital, the issue of hierarchical relations and their impact on the development of social capital remains under-explored (Adler and Kwon 2002). Additionally, it is widely accepted that social capital may produce social bad (Astone et al. 1999; Warren 2001), but most of the research using the concept of social capital focuses on the positive consequences of an adequate amount of social capital. Little empirical research has been done on how the development of social capital may lead to social risk in a society and to actors themselves. To fill these gaps this paper, through an empirical study,

addresses issues of risks of social capital that Chinese firms may encounter when networking in a hierarchical social structure.

Firms in China use networking as an effective business strategy within the current economic in China. Of the various types of network, developing social ties embedded in the formal hierarchical system for many firms is their important focus to access exclusive information and operation support while facing an environment in which the Chinese government still exerts a strong economic role (Peng and Luo 2000). In doing so, a firm may have to prudently balance benefits and risks in the function and outcome of social capital engaging in external relations with people who have monopoly power in business within a government system (MPBGS). According to democratic theory, there should be a close connection between unequally distributed background empowerment and the negative functioning of social capital (Warren 2001). This raises a research question: What risks does a firm expect to face when involved in such relations? It would, therefore, be worth investigating how status with consequent unequal power in the social structure leads to the risks of social capital within the context of China's transition economy.

SOCIAL CAPITAL AND HIERARCHICAL RELATIONS

Social capital is a productive resource, facilitating actions in a firm's business operations (e.g. Baker 1990; Coleman 1990; Burt 1992; Tsai and Ghoshal 1998). Nahapiet and Ghoshal (1997) argue that it makes possible the achievement of certain ends that in its absence would not be possible or would come at high cost. Social capital from a perspective of function is defined as the value to actors of those aspects or resources of the social structure that can be used to realize their interests (Coleman 1990, pp. 302, 304 and 307). This study adopts Coleman's definition of social capital to explain the effects of hierarchical relations on a firm's business. The concept of social structure essentially illustrates how the social capital can function as a resource for the individual actors of certain groups. Paired exchanges of social capital do not take place in a vacuum. They develop within a societal context in which there is competition for the resources held by each actor (Coleman 1990, p. 133; Putnam

1993; Fukuyama 1995). The actors' exchange of power within the structures depends on the perceived value of resources in their interactive relationships (Molm et al. 2000).

Hierarchical relations with respect to social capital in this study refer to the structural power between two sides with variously possible aspects of exchangeable value; and where levels of social status are differentiated and unequal.

The imbalance of power in hierarchical relations exerts a role in determining the cost–benefits balance in social capital, as it shapes the nature of reciprocal exchange, the level of trust and commitment, and the expectation of continued interaction (Molm et al. 2000; Warren 2001).

On the one hand a person with MPBGS is able to help the networked firm with exclusive information and access to resources. Their support can be crucial for the firm to enhance the efficiency and effectiveness of business operations in a very competitive market. On the other hand, their involvement in social capital may lead to social risks for the firm, including the bribery–corruption interaction, high cost and self-interest pursuit (Warren 2001).

Risk of corruption and high cost in social capital of hierarchical relations

The development of social capital contains the possibility of both positive and negative effects of social relations on societies (Uzzi 1997; Pildes 1996; Adler and Kwon 2002). The hierarchically based structural holes not only generate value for the business in information and resources but also expose the firm to exploitation, bribery and corruption, and low trust (Brass et al. 1998).

Warren (2001) argues that corruption is an indirect result of too much bureaucracy and a weak democracy. In a poorly functioning democracy, where business activities may not be conducted creditably and the empowering institutions and legal mechanisms remain weak, the functions of social capital are likely to be associated with negative externalities. First, these conditions provide opportunity for some in formal hierarchical positions to design excessive positional power for controlling economic activities as much as possible. Due to the monopoly power in certain economic activities, resource allocation and economic policies tend to be made without transparency to the public. This inevitably creates for firms a climate of economic dependence on these governmental officials. From a resource dependence

perspective (Emerson 1962; Pfeffer and Leong 1977), the exchange power results from both access to and control over important business resources. People who control relevant resources increase others' dependence on them, thereby acquiring power (Pfeffer, 1981; Brass et al. 1998). Power imbalance in social exchange carries the potential for corrupt interaction and a high cost for dependent parties.

Second, the benefits which can be provided through the social capital of hierarchical relations lure the firm to develop such social capital at all cost, including corrupt interactions, in an attempt to eliminate other competitors. Using embeddedness, the firm is able to deal with people holding monopoly power to gain exclusive information and resources. At the same time they can also effectively constrain access for other firms to the same resources and business opportunities. This results in benefits for themselves as 'insiders' and places the other firm as 'outsider' in the network, limiting fair competition (Warren 2001; Coleman, 1990).

Finally, the immature legal system offers little check on illegal or unethical conduct. The structural holes created by the hierarchy strengthen the unchecked situation. Consequently, social capital functions in a climate that cultivates the bribery-corruption interaction, as people with MPBGS can readily act against the regulations to fulfil their own interest.

Currently, the economy in China is developing without a parallel political openness, allowing the government to maintain a strong influence on marketing operations. Some officials can gain access to new economic resources by trading their power (Warren 2001). There is a many layered and numerous bureaucracy which functions in economic control, policy regulation and resource allocation in relation to business. The system creates no equality in social exchanges for business firms. Unequally distributed power in controlling markets results in many Chinese business firms depending heavily on people with MPBGS. Thus it becomes in the interest of the firm to establish social relations with them. The bribery–corruption interaction may be perceived as an unavoidable means of entry to the networks of hierarchical relations or as part of the social capital strategies by a Chinese firm. The legal system in China is relatively weak. Consequently, inappropriate interactions occurring at

some hierarchical levels are not easily detected and monitored (Brass et al. 1998). With all these factors, corrupt interactions are likely to increase when a firm cultivates social capital at the hierarchical level.

To secure resourceful hierarchical relations on which the firm depends heavily, the firm as the dependent side may have to pay a hefty cost (Bae and Gargiulo 2004). The Chinese firm is likely to become the vulnerable side and bear the heavy cost for the social capital of hierarchical relations.

Hypothesis 1: The bribery–corruption interaction is positively associated with the social capital of hierarchical relations in China.

Hypothesis 2: The cost to the firm of cultivating social relations is positively associated to social capital based on hierarchical relations in China.

The moderating effect of self-interest

Social capital can be simultaneously a ‘private good’ and a ‘public good’ (Warren 2001).

Taken as a private good, it may be turned from social good to social ill by individuals’ with self-seeking motivation. According to agency theory, the purpose of an individual’s exchange with others is for maximum personal outcomes. Therefore, there is a possibility of generating negative societal effects if actors maintain their social capital for maximizing self-interest, especially if the social exchange is attached to imbalanced power. The power inherent in hierarchies encompassing authority, resources, information and opportunities may engender a desire to maximize individual outcomes from social exchange.

If people in a higher position of power in an exchange structure strongly pursue self-interest and ignore public interest, then corruption will have a chance to occur during the development of social capital. The positive relationship between corruption and the social capital of hierarchical relations is likely to be stronger when the individual interest of people with MPBGS in the interactive relations is higher.

Hypothesis 3: Self-interested motivation of people with monopoly power in business will moderate the relationship between social capital and corruption.

METHOD

Sampling and Procedure

As the aim of this study was to understand the behaviour concerning social capital at the firm level, a convenient sample was drawn from participants at Executive MBA courses where most were CEOs and managers from the top management level. The survey was conducted in 2004 across different locations in China, including the cities of Shanghai, Beijing, Changsha and Nanning. Participants were given questionnaires on the first day of class and asked to return them on the last day of the course. Of the 75 individuals who actually received questionnaires, 19 individuals did not return them, yielding a sample for this study of 56 top management people (46 males and 10 females). Both respondents and non-respondents represented a variety of industries.

Table 1. Demographic Characteristics for Top Managers in China.

Variable				
Gender	Male	Female		
	46 (82.1%)	10 (17.9%)		
Age	25-35	36-45	46-55	
	12 (21.4%)	30 (53.6%)	14 (25%)	
Education	Elementary school	Jr. high or high school	Undergraduate or college	Postgraduate
	0	0	54 (96.4)	1 (4%)
Work Year In current Co.	Under 2 years	2-5 years	5-10 years	11-20 years; over 20 years
	8 (14.3%)	14 (25%)	6 (10.7%)	20 (35.7%); 8 (14.3%)
Mgt. position	Chairman plus CEO	CEO or top management	Middle managers	First-line managers
	20 (35.7%)	24 (42.9%)	12 (21.4%)	0

Measures

The survey instrument was developed by conducting literature reviews and interviews. First, based on conceptual discussion in the literature, a questionnaire was designed and developed. Second, a pilot investigation was conducted with a questionnaire survey and followed interviews with participants to obtain suggestions, comments and thoughts on the instrument. The questionnaire was then modified. Finally, the revised questionnaire was distributed at appropriate opportunities during 2004. The subjects were asked to express their level of

agreement with a given statement via a five-point Likert-type scale – ranging from ‘strongly agree’ to ‘strongly disagree’.

Dependent variables

Social capital of hierarchical relations. This measure tested the extent to which the firm’s networks of hierarchical relations are for their business. Three items tested this variable: for example, ‘my firm has close relationships with people who hold a formal position with privileged powers in dealing with business’;

Independent variables

Corruption. This measure tested the extent to which corruption is involved when the firm develops social networks with hierarchical relations. For example, ‘it is inevitable that the firm has to be involved in corruption if it wants to develop a close relationship with people who hold a government position with privileged powers in business’

High firm cost. This scale measured the extent to which a firm has to pay high costs to initiate and cultivate relationships of unequal power, when placed in a more dependent position in the dyadic ties.

Self-interest pursuit. This measure, of three items, examined the extent to which the motivation of those with higher status in monopoly power is perceived as self-interest.

Control variables

Since the cost and benefits of social capital are aggregated by the firm, two control variables included in the analysis are at the firm level. The *firm size* is a measure of the number of employees in the firm as previous research finds firm size is negatively related to the need for social ties for survival and prosperity in China (Yeung and Tung 1996; Peng and Luo 2000). The *firm year* measures the length of the firm’s existence since established. The *length of work* in the current company is also controlled for the hierarchical regression analysis.

Analyses and Reliability

Using scales based on 56 CEOs and senior managers, the analysis involved regression on dimensions with variables of *strategy of social capital* (Cronbach’s alpha = 0.70), *risk of*

corruption (Cronbach's alpha = 0.86), *risk of high firm cost* (Cronbach's alpha = 0.81) and *self-interested pursuit of hierarchical relations* (Cronbach's alpha = 0.86). Prior to statistical analysis, the codes of the responses to a number of items were reversed, so that all of the items which were measured with a higher score represented a higher level of preference on the scale. In the hierarchical regression analysis testing the relationship between social capital and social risk variables, social capital was regressed by variables of the demographic factors of CEOs and senior managers, the firm size and length of establishment (Step 1); corruption, the firm cost and self-interest pursuit (Step 2); and the interaction of corruption with self-interested pursuit (Step 3).

RESULTS

The means, standard deviations and Pearson correlations for demographic variables, the dependent variable of social capital and the independent variables including risks of corruption, the high cost to the firm and self-interested pursuit, are all presented in Table 2. The results of correlations indicate that there is a negative relation between the social capital and the firm cost ($r = -0.49$, $p < 0.05$). There is a positive relationship between risk of corruption and risk of self-interest. There is also a positive relation between social capital and the length of work experience in current companies.

Table 2. Means, Standard Deviations, and Pearson Correlations^a for Variables

Variable	M	SD	1	2	3	4	5	6	7	8
1. Age ^b	2.18	.75	---							
2. Work years in current company ^d	4.00	1.62	.32	---						
3. The firm years	21.12	.18	.50*	.60**	---					
4. The firm size	5.12	1.17	.20	.07	.33	---				
5. Social capital	4.21	.58	-.02	.53***	.26	-.13	---			
6. Risk in high cost	3.22	1.03	-.08	-.09	-.11	-.11	-.49*	---		
7. Risk in self-interest	2.92	1.01	.09	-.01	.03	-.03	.12	.40	---	
8. Risk in corruption	3.08	1.01	.15	-.19	.03	.35	-.02	.34	.57*	---

^a * $p < .05$; ** $p < .01$; *** $p < .001$; (2-tailed).

^b Age was coded as: 1 = 20-29; 2=30-39; 3= 40-49; 4=50 or over

^c Education level was coded as: 1 = primary school; 2= secondary school; 3 = bachelor' degree; 4 = postgraduate degree.

^d Management position was coded as: 1 = top management; 2 = senior management; 3 = middle management; and 4 = first-line management.

^e Years in management was coded as: 1 = less than 2 years; 2 = 2 – 5 years; 3 = 6- 10 years; 4 = 11-20 years; and 5 = over 20 years.

The results of hierarchical regressions in Table 3 The results of hierarchical regressions in Table 3 indicate that there is a positive linkage between the bribery–corruption interaction

and social capital in hierarchical relations. Hypothesis 1 is, thus, supported. However, there is a negative relationship between the high firm cost and social capital in hierarchical relations. Hypothesis 2 is rejected, in an opposite direction. No coefficient for the interaction of self-interested pursuit on the relationship of corruption and social capital is significant. Hypothesis 3 therefore, is rejected.

Table 3. Hierarchical Regression Analysis of Risks for Social Capital in Hierarchical Relations in China

Variable	Social capital		
	Model 1	Model 2	Model 3
Controls			
Age	-.15	-.09	-.08
Work yrs in current company	.66 [†]	.23 [†]	.26
The firm years	-.11	.22 [†]	.21
The firm size	-.10	-.22*	-.24 [†]
Main effects			
Risk in high cost		-.44***	-.44**
Risk in corruption		.30*	.30*
Risk in self-interest		.26*	.14
Interactive effect			
Corruption x Risk in self-interest			.32
R ²	.57	.97	.98
Adjust R ²	.11	.88	.94
F	1.49	15.92***	26.69***
Observation number (the firm)	56	56	56

^a Standardized coefficients are reported.

[†]p<.10; * p<.05; ** p<.01; *** p<.001

DISCUSSION

This research addresses whether a firm's social capital which is embedded in hierarchical relations is related to the involvement of negative externalities at the firm level. The findings of this research contribute empirical evidence to support the proposition that there is a linkage between the social risks for the firm and the social capital of hierarchical relations in the context of China.

Theoretical implications

The findings indicate that firms perceive that the cost of dealing with people with monopoly power is not high. This result is opposite to the original hypothesis. It may mean that compared with the return from investment in social networks of hierarchical relations, the

transaction cost becomes an investment with a high pay-off. To the firm, investing in the social capital of hierarchical relations is a 'low cost' in terms of return guarantee, when compared with gambling on the possibility of information and allocated resources obtained randomly through formal channels. This result is also different from that of Warren's proposition (2001) that the more dependent side of a social relation bears a high cost for the purpose of social capital in the hierarchical relationships. This may indicate the nature of social capital in hierarchical relations, like other horizontal relations of social capital : both productive and market-related (horizontal) social capital – they must end up with a gain that is higher than the cost.

The findings of the research also indicate that there is a positive relationship between involvement in corruption and the social capital of hierarchical relations. The findings support the arguments of Brass et al. (1998) that negative externalities are likely to occur in sparsely connected, weak-tie networks. The social exchanges between the firm and individuals with power based on their formal position occur in sparsely connected networks. Both sides, but especially the higher status side, may act to begin, terminate or resume the mutual exchanges at anytime as they wish. The firm's relative vulnerability leads to a lowered resistance to involvement in the bribery and corrupt interactions with people in powerful positions of control, especially when the firm is keen to compete in the market.

Practical Implications

These findings clearly indicate that developing the social capital of hierarchical relations in China for business the Chinese firm sometimes has to become involved in the negative externalities of corrupt activities. The findings of this study indicate that the more social capital gained, the more corruption the firm may have to be involved in concerning the hierarchical relations. The discrepancy in a hierarchical relation means the two sides are not necessarily bound to each other, with the Chinese firm, more reliant on those with monopoly power. The empirical evidence of this study supports Warren's (2001) proposition that corrupt exchanges are based upon allocation of information and resources that are without transparency. Corruption may be inevitable if a market cannot run independently by following

the free market, like the current transition economy in China which is the negative aspect of social capital (Coleman 1990).

LIMITATION AND DIRECTIONS FOR FUTURE RESEARCH

As with much research, this study has limitations that leave unanswered questions for the future research. First, this study examined the risks of a high cost and potential corruption. Other negative effects such as the risk of low trust, no reciprocity or suddenly dysfunctional networks are not included in this study. It is important to know whether other negative externalities can occur in the functioning of social capital and this could be explored in a future study.

Secondly, a comparative study of hierarchical relations and other types of relations which configure social capital may give a clear picture of how such relations are related to the risks and benefits of social capital. Finally, there is also a need for research into the relationships between social capital, performance and other moderating variables beyond self-interest, such as trust and institutional interest, in order to know how social capital brings benefits and risks within the social context of hierarchical relations.

This study has explored relationships between the social capital of hierarchical relations and the risks to the firm. Identifying these elements can help a firm to balance the gain and losses of social capital within relationships of higher status and economic power, especially for firms operating within China's transition economy.

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