



Contents lists available at ScienceDirect

European Management Journal

journal homepage: www.elsevier.com/locate/emj

The role of social capital and culture on social decision-making constraints: A multilevel investigation

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ARTICLE INFO

Article history:

Received 11 April 2017

Received in revised form

14 March 2018

Accepted 17 April 2018

Available online xxx

Keywords:

Social capital

Multi-level

Social decision-making constraints

Culture

China

ABSTRACT

Social capital is a powerful theory explaining how organisations and their members access resources through relationships. Yet, it is important to examine potential negative consequences, as significant investments are required to build social capital, and indiscriminate promotion of social capital may lead to wasted resources. The research herein responds to this call by examining a specific negative consequence in cohesive, internally focused groups associated with the bonding perspective of social capital. To investigate the adverse impact of conformity, we employ the construct of social decision-making constraints (SDMC), which refers to perceptions of the extent to which social relationships can control decision-making in an organisational context. Using multilevel structural equation modelling (MSEM) of nested data from Chinese firms, we test the impact of social capital (norm of reciprocity and trust) and culture (power distance and high–low context) on SDMC, and find that reciprocity norms and power distance increase and trust decreases SDMC at both the individual and firm levels, whereas the high–low context operates only at the individual level to increase SDMC. Compared to previous studies, the current findings offer a more comprehensive understanding of the multilevel impacts of social capital, thus providing evidence that different facets of social capital and culture exert both positive and negative effects on SDMC.

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1. Introduction

Social capital – the goodwill available to individuals or groups arising from the structure and content of social relations that generates enhanced information, influence, and solidarity (Adler & Kwon, 2002) – is a powerful theory explaining how businesses and their members access resources through relationships (Adler & Kwon, 2002; Nahapiet & Ghoshal, 1998). The positive effects of social capital have been demonstrated empirically in a broad range of management topics including employment (Granovetter, 1973), career success (Burt, 1992), reduced turnover rates (Krackhardt & Hanson, 1993), inter-organisational exchange (Uzzi, 1997), inter-firm learning (Kraatz, 1998), entrepreneurship (Lai & Gibbons, 1997) and product innovation (Hansen, 1999).

But, what about the possibility of adverse effects of social capital (Villena, Revilla, & Choi, 2011)? Investigating potential negative

consequences has important managerial implications, given that significant investments are required to build social capital (Hansen, 1999) and indiscriminate promotion of social capital may lead to wasted resources (Portes, 1998). Research has begun to respond to this imperative, as indicated by investigations associated with negative consequences of social capital and its components (e.g., Bizzi, 2013; Molina-Morales & Martinez-Fernandez, 2009; Tangpong, Li, & Hung, 2016). In considering how negative consequences manifest, Pillai, Hodgkinson, Kalyanaram, and Nair (2017) identified potential moderators that could cause an inverted-U relationship between social capital and the beneficial organisational outcomes identified above.

We take a different approach, investigating a potential mediator operating simultaneously with social capital to undermine its benefits. We investigate the adverse impact of conformity on the ability of tightly knit groups and their members to freely choose alternatives when making decisions due to conflicts between community solidarity and individual freedom (Portes, 1998). Decision-making has long been a critical focal point for understanding how organisations behave (Hodgkinson & Starbuck,

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2008). We crystallise this idea of ‘the adverse impact of conformity’ in the construct of social decision-making constraints (SDMC), which refers to perceptions of the extent to which social relationships can control decision-making in an organisational context. Further, we examine the role of social capital constructs of trust and norm of reciprocity as antecedents of SDMC, as they are key drivers of social capital in dense network configurations (Adler & Kwon, 2002).

Culture, also, is a powerful motivator of individuals’ behaviours (Kemper, Engelen, & Brettel, 2011); hence, it is examined in this study as an antecedent of SDMC. However, categorising entire countries according to cultural dimensions has been questioned (Eranova & Prashantham, 2016; Fang, 2010). Thus, we examine the impact of culture by directly measuring perceptions of these constructs, rather than employing secondary data of country-wide averages. China is chosen as the country context because investigating social capital in a Chinese business context enables the examination of social capital theory’s explanatory power in a non-Western context (Wu, 2008). Despite the increased use of contracts (Zhou, Zhang, Sheng, Xie, & Bao, 2014), relationships continue to be very important in Chinese business interactions. Furthermore, cultural values are no longer homogeneous in China since it joined the World Trade Organisation (Ou, Davison, & Wong, 2016); hence, China now is a suitable context to examine the impact of within-country variation of culture and its relationship with social capital and SDMC.

In summary, the primary aim of our study is to examine the effects of social capital and culture on SDMC, as we believe SDMC offers an alternative explanation for the inverted-U relationships found in empirical research of social capital and its outcomes. We first conduct a theoretical review of social capital, culture and SDMC. Based on theoretical and empirical evidence, the conceptual model is hypothesised. Subsequently, we present the empirical study using data collected from members of young, high-tech, indigenous Chinese firms. Finally, we discuss the results and implications for academics and managers.

2. Theoretical background

Conceptually, social capital is differentiated based on relationship focus: within a group or organisation (the bonding view) or between individuals in different groups or organisations (the bridging view). The bonding view addresses how social capital evolves within the group, where strong and reciprocal bonds form because of frequent interaction (Coleman, 1988). Such cohesiveness facilitates collaboration and knowledge-sharing through informal and trust-based governance mechanisms that enable intense interactions (Hansen, 1999; Nahapiet & Ghoshal, 1998; Uzzi, 1997). The bridging view highlights connections between members of different groups, where gaps known as structural holes are filled by individuals who act as a broker between groups (Burt, 1992; Granovetter, 1973). In bridging, brokering yields benefits related to resource novelty to the different groups. Thus, bridging is valuable because it enables access to novel resources, whereas bonding is valuable because it enables effective resource use, particularly when the resource consists of complex, tacit knowledge (Hansen, 1999).

As expressed in the definition by Adler and Kwon (2002), the outcomes of social capital are enhanced information, influence and solidarity. Information is impacted by social capital, as it enables access to more and different information sources and improves information quality, relevance and timeliness (Coleman, 1988). Influence is enhanced by social capital, as actors build a cache of obligations that can be used to manage actions toward specific goals (Coleman, 1988). The solidarity created in the bonding form of

social capital encourages compliance with rules and customs while reducing the need for formal control (Coleman, 1988). Yet, too much of a good thing can lead to adverse consequences such as trade-offs between information and influence and the groupthink that arises with inordinate levels of solidarity (Adler & Kwon, 2002). For example, Nutt (2010) examines the success associated with various decision processes and finds that imposition of ideas from those with power consistently results in poorer outcomes than a discovery process, in which needs and desired outcomes direct the search for solutions.

2.1. Social decision-making constraints

Strategic (i.e., important or key) decisions ‘emphasize the social practice of decision making as it is carried out among and between individuals in the organisation’ (Nutt & Wilson, 2010, p. 3). Karl Weick’s (1979) book *The Social Psychology of Organizing*, was ‘the first comprehensive analysis of organisations as information-processing systems’ in which organisation members interpret, prioritise and assign meaning to information in processes that are ‘intrinsically social’ (Hodgkinson & Starbuck, 2008, p. 12). The sense-making perspective on organisational decision-making introduced in that book ‘pays attention to how people “deal with” ... constraints imposed by their information processing limitations and their organisational context, ...to show that the answer to better decision making ... requires an understanding of the social processes of negotiation involved in deciding’ (Balogun, Pye, & Hodgkinson, 2008, p. 235). Thus, investigation of SDMC builds on the long history of considering the ways in which decisions are made within the social context of organisations.

In their investigation on the role of social capital in Chinese entrepreneurs’ new business development, Li, Yang, Bai, Che, and Zhan (2012) introduced the ‘dark-side’ construct of decision-making constraint that they defined as ‘relationship constraint on decision-making’ (p. 2420). Constraints can be defined as ‘a state of being restricted, limited, or confined within prescribed bounds’ (Rosso, 2014, p. 3). Other social capital research also considers constraints. For example, Burt (1992) describes network constraints as the extent to which a network is concentrated in redundant contacts. Li et al.’s (2012, 2013) conceptualisation of decision-making constraint forms the foundation of the SDMC construct used as the dependent variable in our research.

Li et al.’s (2012, 2013) ‘decision making constraint’ construct focuses on opportunity costs, network conformity and the impact of hierarchy. In terms of opportunity costs, social networks ‘must be constructed through investment strategies oriented to the institutionalization of group relations’ (Portes, 1998, p. 3). Thus, creating and maintaining social capital is an effortful undertaking, and overinvestment can transform this ‘potentially productive asset into a constraint and liability’ (Adler & Kwon, 2002, p. 28). In particular, the strong ties associated with the bonding view of dense networks are costlier to maintain than are weak ties that require time to cultivate and excessive information processing demands of multiple, direct contacts (Hansen, 1999).

Regarding network conformity, various researchers have discussed the problem of over-embeddedness, in which network members become focused solely on the network to the exclusion of other considerations. As Eranova and Prashantham (2016) point out, this is a common paradox in organisational settings. For example, Powell and Smith-Doerr (1994) highlight the informational and groupthink problems when they assert that ‘(t)he ties that bind may also turn into the ties that blind’ (p. 393). Portes (1998) raises concerns about free-riding within groups given that group members are pressured to share their resources. Particularly relevant to the construct of SDMC, Portes (1998) also highlights the

attenuation of individual freedom due to pressure to conform to group norms and group welfare.

Regarding hierarchy, we follow Adler and Kwon (2002) and do not consider hierarchical relations to be part of social capital because of differences in exchange conditions: in hierarchical relations, 'obedience to authority is exchanged for material and spiritual security', whereas in social relations, 'favours and gifts are exchanged' (p. 2001). Instead, hierarchy is incorporated into SDMC in that hierarchy shapes the structure of social relations through its effects on incentives, behavioural norms, authority, resources, skills and beliefs (Adler & Kwon, 2002). Hierarchy may facilitate social capital, as those higher in the network's hierarchy have more access to knowledge on network structure (actors, ties, and resources) and hence are better able to access and use social capital effectively (Lin, 2001). The assumption in leader–member exchange theory is that, in a manager–subordinate relationship, managers control resource exchanges because of their higher status in the organisational hierarchy (Farmer & Aguinis, 2005). Depending on the superiors' motives, social capital can be employed to the advantage or disadvantage of the subordinate (Kulkarni & Ramamoorthy, 2017); hence, the constraints imposed by authority and respect for hierarchy are substantial (Eranova & Prashantham, 2016). Therefore, subordinates must account for superiors' likely behaviour.

The purpose of investing in social relationships in organisations is to access more information and resources, thus improving performance. Nevertheless, networks with more strongly interconnected contacts ultimately may lead to dependence on others and reduced autonomy (Bizzi, 2013). Although social capital theory suggests that the purpose of building social relationships is to access resources embedded in those relationships, it may result in some amount of control over individuals' behaviours. Accordingly, SDMC is defined here as perceptions of the extent to which social relationships can control decision-making in an organisational context.

2.2. Social capital

Social capital refers to resources embedded in relationships that are available to exchange through these relationships. Coleman (1988) argues that social capital constitutes trust, reciprocity, obligation and expectations. The operating principle of these social capital elements resonates with Gouldner's (1960) explanation of the relationships among reciprocity, obligations and expectations. According to Gouldner (1960), obligation and expectation are incorporated into reciprocity: if individual A offers resources to individual B and trusts B to reciprocate in the future, this establishes an expectation in A and an obligation on the part of B. Given Gouldner's (1960) conceptualisation that subsumes obligation and expectations into the norm of reciprocity, we specifically discuss trust and norm of reciprocity as the two underlying dimensions of social capital. Further support for our focus on these two dimensions comes from Adler and Kwon (2002), as they consider trust and reciprocity as the motivation for social capital (Adler & Kwon, 2002).

2.2.1. Trust

Trust refers to expectations regarding the goodwill and competence of others (Maurer, Bartsch, & Ebers, 2011), which essentially represents the quality of the relationship among actors (Kemper et al., 2011). Individuals often require resources that belong to others; thus, some extent of uncertainty is natural. Trusting relationships are rooted in value congruence, in terms of the compatibility of individuals' values with a firm's values (Tsai & Ghoshal, 1998). Coleman (1988) emphasises the value of trust as part of social capital to facilitate an exchange. Within an

organisational context, trust is important in shaping reliable and socially accepted behaviour among members (Hashim & Tan, 2015).

2.2.2. Norm of reciprocity

Norm of reciprocity refers to the exchange of resources being mutual and perceived as fair (Chiu, Wang, Shih, & Fan, 2011). In other words, it is an obligation for individuals to return in kind what they have received from others (Gouldner, 1960).

Reciprocity is not only related to trust but also distinguished from trust (Svärd, 2016). As mentioned above, reciprocity can be restricted between individuals A and B, with what A receives from B being contingent on what A gives to B, emphasising the equivalence between partners. However, individuals (i.e. A and B) who trust each other will not be concerned about making sure that their exchanges are of equal value (Uhl-Bien & Maslyn, 2003). Trust reflects the belief in benevolence, goodwill and credibility, whereas reciprocity reflects the expectation of fulfilling commitments (Pervan, Bove, & Johnson, 2009). Therefore, reciprocity involves a mental tabulation of the value of chits owed, whereas trust does not involve explicit accounting for specific obligations. Rather, trust is a holistic appraisal of the overall quality of the relationship. As a result, we may expect trust and reciprocity to exhibit different effects because they operate in qualitatively different ways.

2.3. Culture

Culture refers to beliefs, values, attitudes and norms (Leung, Bhagat, Buchan, Erez, & Gibson, 2005), which differentiate one group of individuals from another by influencing their behaviours (Kitayama, 2002). There still is inconclusive evidence on the cultural factors that affect decision-making in a given context, and empirical results on the negative outcome of social capital are not conclusive (Villena et al., 2011; Yates & Oliveira, 2016). Conceptually, however, we choose two culture constructs to study, as they are associated with relationships within organisations, where hierarchy is the basic organisational structure and communication is paramount. We examine power distance, defined as attitudes about unequal power distribution (Hofstede, 2001), and high–low context, defined as implicit versus explicit communication styles (Hall, 1976).

Our study chooses power distance and high–low context as the two specific dimensions of culture examined, given their relevance to hierarchy and conformity on which SDMC is based. In decision-making contexts, Chinese organisations commonly exhibit authoritative decision-making styles and respect for hierarchy; individuals look outside themselves to identify socially sanctioned decision rules, rather than deciding based on their own individual preferences (Eranova & Prashantham, 2016). At the national level, the Chinese have been demonstrated empirically to exhibit high power distance (Hofstede, 2001) and high context communication style (Hall, 1976). However, categorising entire countries has been questioned, particularly in China, because of the Chinese embrace of paradox as highlighted in Yin Yang, which is the integration of opposites (Eranova & Prashantham, 2016; Fang, 2010). According to these authors, the extent to which individual Chinese people exhibit a specific level of power distance or high–low context communication style depends on the person's experiences and the context in which they find themselves.

2.3.1. Power distance

Power distance describes the distinction between high and low levels of acceptance and expectation of unequal power distribution (Hofstede, 2001). In organisations, a hierarchical structure is prototypical and power is fundamental to all hierarchical relationships (Hodgkinson & Starbuck, 2008). Thus, investigating the influence of

the cultural perception of power distance is important when examining potential negative consequences of social capital.

Hofstede's cultural framework has been highly influential, but it also has been subjected to criticism (Eranova & Prashantham, 2016; Fang, 2010). Two of the most significant criticisms relate to the failure to capture the malleability of culture over time and the failure to recognise cultural heterogeneity within countries (Sivakumar & Nakata, 2001). Although power distance is usually treated as a homogeneous national value, it varies across individuals and at different organisational levels (Taras, Kirkman, & Steel, 2010). Therefore, we explore within-country variation by measuring individual power distance.

2.3.2. High–low context

Hall (1976) proposed the high–low context to characterise individuals according to their communication styles in terms of contexts. Context refers to the information that surrounds an event, which includes the environment, the situation in which the communication takes place, as well as the values, status in society and relationships among the interacting parties (Hall, 1976). A low context communication style is said to occur when individuals tend to communicate in an explicit way to show their inner thoughts directly with less contextual background. By contrast, a high context communication style is exhibited when individuals tend to communicate in an implicit way – those in the culture understand what is meant because they understand the context.

Classically, East Asian countries (e.g. China, Japan and Korea) are considered as high context countries, whereas Western countries (e.g. United States, Germany and Canada) are categorised as low context countries (Savani, Markus, & Conner, 2008). However, according to Xiao and Su (2004), the use of the high–low context in cross-cultural research fails to find a consistent and empirically well-founded country classification. Therefore, we explore within-country variation by measuring the individual level of context communication style.

2.4. Research level of each construct

'Organisations do not behave, people do' (Kozlowski & Klein, 2000, p. 7). This statement underscores that firms are shaped by their members. Therefore, in organisations, most management issues involve multilevel phenomena (Morgeson, Mitchell, & Liu, 2015), involving individuals and the broader environment in which individuals are embedded (Hitt, Beamish, Jackson, & Mathieu, 2007). Social capital is no exception, as it also occurs at multiple levels (Zheng, 2010). The collection and use of resources, the 'raison d'être' of social capital, reside in relationships between two individuals and also in the whole collective into which individuals form (Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998; Yu, Hao, Dong, & Khalifa, 2013). Therefore, we embrace the nested nature of social capital by adopting a multilevel approach to examine the effects of social capital at both the individual and firm levels.

Many firm-level phenomena originate in the form of individual behaviours and perceptions (Gupta, Tesluk, & Taylor, 2007). Although individuals in the firm can be relatively independent of each other, individuals' interactions mutually reinforce each other and further influence the contextual environment of the firm (Perlow, Gittel, & Katz, 2004). Despite variations across individuals who hold their own perceptions, there tends to be a single perception that dominates within a firm (Richardson & Smith, 2007). The question arises as to how individual perceptions combine within a firm to reflect a firm-level perception.

Marsh et al. (2012) provide a conceptual framework to distinguish two different types of higher level constructs, in terms of

climate and contextual effects, which are based on the aggregation of lower level constructs. Climate effects are those that originate from aggregations of individuals' evaluation of firm characteristics. In this sense, the referent is the firm, in that individuals in the firm respond about some aspect of the firm. Climate effects therefore, depict individuals' shared perceptions regarding their firm's environment. By contrast, contextual effects are those of a construct above the effect of the corresponding individual-level construct. The referent is the individual, and the firm-level construct is an aggregation of these different individuals' characteristics. The responses for contextual constructs are not expected to be correlated and interchangeable, as random variation across individuals in the same firm is expected. In our study, when considering firm-level constructs and hypotheses, contextual effects are represented in that the latent constructs are reflected in aggregations of the individual perceptions of their relationships with others at the firm.

3. Conceptual model and hypotheses

Our hypothesised model is shown in Fig. 1 and explained below. As stated in the previous section, we employ a multilevel approach to understanding the multiple ways in which social capital and culture impact SDMC. In other words, we consider these relationships from the perspective of individual members in individual firms, as well as from the aggregate level of how overall perceptions impact SDMC across firms. However, there are neither conceptualisations nor empirical results in the extant literature that lead us to expect that the relationships between the independent variables and the dependent variable operate differently at the different levels. Therefore, we offer a single statement of each hypothesised relationship, clarifying in each hypothesis that the relationships operate at both the individual level and the firm level.

3.1. Trust and SDMC

Individuals' trust occurs when they believe that even if an opportunity exists, the exchange partners should not take advantage of it. Therefore, beliefs in the good intentions and concern of exchange partners is an antecedent to cooperation and risk-taking (Nahapiet & Ghoshal, 1998). Moreover, trust indicates a willingness to be vulnerable to others, thus reducing the need for strict control and rigid rules (Molina-Morales & Martinez-Fernandez, 2009), which can increase individuals' freedom to make decisions. Conversely, a lack of trust implies the increased need for monitoring others, which can cause a reduction in individuals'

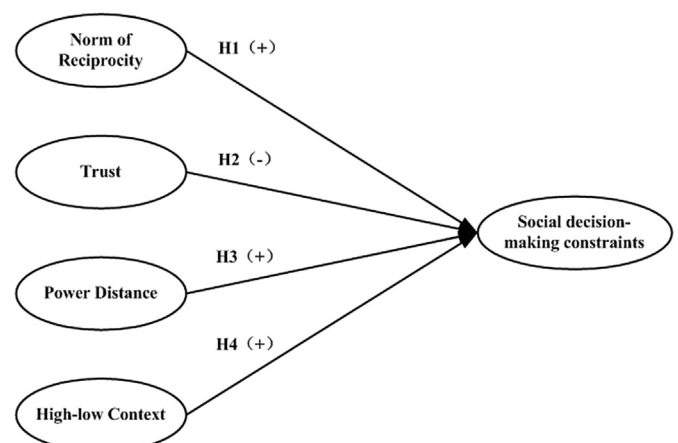


Fig. 1. Conceptual model.

autonomy of action. In an empirical survey involving 158 entrepreneurs in China, Li, Wang, Wang, and Bai (2013) postulate that trust helps to reduce constraints on decision-making.

Trust at the firm level involves aggregated trust exhibited by consensus among firm members (Fulmer & Gelfand, 2012). In a trusting environment, firm members hesitate to monitor each other's behaviour and question others' daily tasks and decision-making because doing so is likely to be interpreted as a sign of distrust (Chung & Jackson, 2013). Conversely, lack of trust among firm members results in a harmful climate, whereby shared perceptions of possible opportunistic behaviours can result in increased behaviour monitoring that constrains every member's discretion (Bizzi, 2013).

In decision-making, two types of conflict exist: cognitive and affective. Cognitive conflict focuses on problem-related differences of opinion which can reduce tension and improve decision quality, whereas affective conflict focuses on individual or personal issues (Amason & Sapienza, 1997). A high level of trust among individuals can increase the shared perception of cognitive conflict (Morgan & Hunt, 1994) while also decreasing affective conflict because trust facilitates affective attachments (Yli-Renko, Autio, & Sapienza, 2001). Rather than constraining decision-making, cognitive conflict helps to enhance understanding as firm members participate in the decision-making process. The effective use of information from diverse perspectives is likely to be superior to the individual perspectives themselves (Li et al., 2013). Moreover, once a trusting environment has been established, even newcomers can also engage in cognitive conflicts that lead to rational thinking rather than in affective conflict. Accordingly, these arguments lead to the following hypothesis:

Hypothesis 1. Trust reduces the extent of SDMC at a) the individual level and b) the firm level.

3.2. Norm of reciprocity and SDMC

Individuals offer resources to others based on the expectation and obligation that they will be reciprocated in the future (Coleman, 1988). When an individual receives others' resources, they may expect future returns. As such, the norm of reciprocity may transform the decision-maker from a self-interested individual into a member of a relationship; therefore, such individual's freedom of decision-making can be restricted in consideration of the obligation (Villena et al., 2011).

Furthermore, the norm of reciprocity may develop some degree of unnecessary obligations (Villena et al., 2011). Specifically, it may require individuals to assist others or attend to their demands even when individuals only expect minimal future benefits. Similarly, although individuals' substantive contribution to others has been relatively low, they may still expect considerable benefits from others' reciprocal services in the future. Given that reciprocity consumes an individual's time and resources, the unnecessary obligation developed by the norm of reciprocity can commit resources, thus constraining the effective actions or decisions beyond what would be optimal (Villena et al., 2011).

Aggregated perceptions across individuals in firms can reflect prevalent firm perceptions (Richardson & Smith, 2007), thereby leading to salient subjective norms regarding reciprocity. The salient subjective norms guide firm members' behaviours by providing an organised and interpretable set of behaviours considered to be appropriate or avoided (Yu et al., 2013). Firm members' feelings of social obligation may become very strong, even if the obligation is unnecessary. Maintaining such relationships may result in opportunity costs. Yet, disrupting a relationship by ignoring obligations may lead to sanctions such as isolation and

punishment (Klyver, Lindsay, Kassiech, & Hancock, 2017) or may generate a negative reputation for the disruptor as an unreliable partner for future relationships (Reagans & McEvily, 2003). As a result, incompatibilities and animosities may arise among firm members experiencing such affective conflict (Simons & Peterson, 2000). Therefore, in contrast to trust, high levels of norm of reciprocity may increase the affective conflict and pressure to act altruistically among firm members (Klyver et al., 2017). Thus:

Hypothesis 2. Norm of reciprocity increases the extent of SDMC at a) the individual level and b) the firm level.

3.3. Power distance and SDMC

In an organisation, hierarchy is a formal structure, where the way individuals view power relationships can affect how they act as superiors and subordinates. With a cultural value of low power distance, individuals are less conscious of the differences arising from position status, and they want to participate equally in the decision-making process (Clugston, Howell, & Dorfman, 2000). By contrast, individuals with a cultural value of high power distance are more aware of hierarchy and the authority of superiors, and they want to follow their superiors' decisions without question.

Firm-level power distance considers the shared values of firm members. The level of power distance is likely to influence the way authority and order operate in the decision-making process (Wu & Chaturvedi, 2009). In a firm with high power distance, power is unequally distributed. Decisions are usually made by superiors and are seldom questioned by their subordinates: power differences in decision-making between powerful individuals and those who are not powerful is perceived as legitimate (Madlock, 2012).

In a firm with low power distance, the differences among individuals in different hierarchical positions in decision-making is likely to be reduced. Individuals often desire equality in power and request justification for inequalities. In such firms, supervisors tend to consult subordinates when making important decisions. As a result, we hypothesise the following:

Hypothesis 3. Power distance increases the extent of SDMC at a) the individual level and b) the firm level.

3.4. High–low context and SDMC

The high–low context characterises individuals' communication styles, in which those with a low context communication style tend to communicate in an explicit way. A low context communication message is one in which the mass of information is vested in the explicit code. Individuals with a low context communication style are likely to communicate most information contained in the message itself in an explicit way (Savani et al., 2008). They are highly individualised, implying that harmony and conformity impose less on their lives.

On the other hand, individuals with a high context communication style tend to communicate in an implicit way, where the context surrounding the words plays an important part in the process of communication. A high context communication message is one in which very little of the total information is coded and explicit – most of the information resides in the context. Individuals who value harmony are often classified as high context communicators (Warner-Söderholm, 2013). To maintain harmony, their inner feelings are under strong self-control and usually not expressed directly because they are careful whether the words will adversely impact their relationships with others. Therefore, if two individuals tend to communicate through a high context style, they

Table 1
Sectors of responding firms.

Sector	Frequency	Percent
Manufacture of machinery and equipment	36	24.3
Telecommunications	31	21.0
Manufacture of motor vehicles, trailers and semi-trailers	28	18.9
Manufacture of chemicals and chemical products	25	16.9
Manufacture of electrical equipment	15	10.1
Manufacture of basic pharmaceutical products and pharmaceutical preparations	13	8.8
Total	148	100

are deeply involved with each other, which may lead to an emphasis on harmony. Such individuals usually care about others' feelings and tend not to voice their inner thoughts directly to avoid conflict and embarrassment (Simons & Peterson, 2000), thereby sacrificing decision-making freedom.

At the firm level, the high–low context is the aggregation of individuals' communication styles within a firm, thus emphasising the communication environment of the firm in which individuals reside. In a firm with a high context communication environment, conformity is emphasised. Thus, firm members are deeply involved with each other (Kim, Pan, & Park, 1998), so that information can be widely shared through simple messages with deeper meaning. This leads to a quest for conformity, sacrificing the freedom of decision-making to keep conformity.

The underlying reason for high context is the existence of social hierarchy, whereby top–down decision-making is more commonplace (Kim et al., 1998). Specifically, in the high context firm, decisions are usually made by superiors and are seldom questioned by their subordinates. However, in a firm with a low context communication environment, individuals are less impacted by conformity. With the above evidence in mind, the following hypothesis is proposed:

Hypothesis 4. High context communication style increases the extent of SDMC at a) the individual level and b) the firm level.

4. Research method

4.1. Sample and data collection

The research context is that of young, high-tech, indigenous Chinese firms. Social capital has been found to be an important asset during start up (Shane & Stuart, 2002), and high-tech firms involve teams of highly skilled individuals who must interact effectively (Anderson, Park, & Jack, 2007). Young and high-tech firms operate in a context of complex and uncertain tasks that require high levels of interaction to share the tacit knowledge required for success (Hansen, 1999). Thus, young, high-tech firms are a suitable research context given their reliance on the bonding form of social capital.

To test the conceptual model, we collected data from Chinese indigenous firms in China's Tianjin Economic-Technological Development Area (TEDA). China is well-known to have a relationship-rich society (Wu, 2008), which can provide a supportive context for testing the outcome of social capital. Furthermore, China is an important research setting to investigate given that traditional Chinese values such as respect for hierarchy are still strong and are being integrated into modern Chinese society (Chae, 2012). Yet, at the same time, culture is drawn from multiple sources beyond nationality (Johnson, Burlingame, Olsen, Davies, & Gleave, 2005). Many Chinese individuals are impacted by their exposure to other cultures through living, working and studying abroad. Therefore, Chinese indigenous firms can provide a proper setting

for testing not only the model but also the generality of existing theories developed in a Western context.

We surveyed employees from Chinese indigenous firms regarding the relationships with their superiors and colleagues and their attitudes regarding cultural values, thus reflecting the underlying constructs of the conceptual model. In total, we received 1394 valid surveys from 148 firms. The responding firms cover six high-technology sectors, as shown in Table 1.

4.2. Measurement

All constructs were measured using existing scales. The survey was initially developed in English except for the SDMC scale, which was adapted from the Chinese study of Li et al. (2012). For the scales developed in English, a translation–back-translation process was used to ensure appropriate translation into Chinese. All item responses used a seven-point Likert response ranging from '1 = strongly disagree' to '7 = strongly agree'. The items for each construct are listed in Table 3.

Regarding the construct of SDMC, we adapted the 'decision making constraint' scale developed for use in China by Li et al. (2013), which exhibits a composite reliability of 0.875 and an average variance extracted (AVE) of 0.639. They constructed this scale based on in-depth interviews with managers in China. Adopting the scale from its original language helped ensure a more accurate reflection of this construct, particularly with the Chinese term of 'renqing' that is directly translated to English as 'offering favour.' Renqing is an important element in maintaining relationships in the Chinese society and can be interpreted as an expectation that a favour will be returned. Thus, renqing is a resource that an individual can provide to another individual in the course of social interaction (Hwang, 1987).

We adopted two indicators as per Wasko and Faraj (2005) to measure the norm of reciprocity with the emphasis on fairness between individuals. The construct of trust was measured with a scale developed by Chiu, Hsu, and Wang (2006), which reflects individuals' beliefs in others' non-opportunistic behaviour, promise keeping, behaviour consistency and truthfulness.

In contrast to previous studies that directly categorise China as a high power distance and high context communication style country, our study assessed the constructs of power distance and high–low context at the individual level, with eight items taken from Kirkman, Chen, Farh, Chen, and Lowe (2009), and four items from Warner-Söderholm (2013), respectively.

4.3. Multilevel analyses

The data were analysed using MSEM with Mplus 7.0 software package (Grant, 1996). MSEM allows for an investigation of the relationship between variables at different levels in a hierarchical structure (Ryu, 2014). Many articles employ hierarchical linear modelling (HLM) to analyse multilevel models (e.g. Nonaka, 1994). MSEM builds on other multilevel approaches such as HLM in that it

enables examination of variance at both levels (Hobday, 2005), but it is better suited for analysis of latent variables (Preacher, Zyphur, & Zhang, 2010). Using MSEM, firm-level latent variables are inferred from the shared variance among individual-level responses, which accounts for the error involved when the assumption of independent observations is violated as it occurs with hierarchically nested data (Preacher et al., 2010).

5. Results

5.1. Intra-class correlation

Before conducting multilevel analyses, the intra-class correlation (ICC) for each item was calculated to verify that multilevel analysis is appropriate (Dyer, Hanges, & Hall, 2005). The ICC is defined as the ratio of variance that exists at the firm level (Kelloway, 2014). The range of ICC values is from 0 to 1; an ICC of 0 indicates that the observations are independent of cluster membership. If the ICC values are close to 0, multilevel analysis can be very difficult, given that there is minimal between-firm variance to model and estimation convergence can be a problem (Stapleton, 2013).

In this study, ICC values were calculated for all latent variable items. The ICC values all range from 0.22 to 0.47, as shown in Table 3, suggesting that multilevel modelling is appropriate.

5.2. Results from multilevel confirmatory factor analysis

The reliability of the measures was assessed by multilevel confirmatory factor analysis (MCFA). The fit indices met the recommended thresholds ($\chi^2/df = 1.59$, CFI = 0.94, TLI = 0.93, RMSEA = 0.02, and SRMR_{within} = 0.03, SRMR_{between} = 0.10). One item of power distance and two items of high–low context exhibited low factor loadings and were eliminated. Subsequent results ($\chi^2/df = 1.34$, CFI = 0.97, TLI = 0.96, RMSEA = 0.02, and SRMR_{within} = 0.03, SRMR_{between} = 0.07) demonstrate the stability of the measurement model. Table 2 presents the composite reliability

of the latent variables, and Table 3 presents the factor loadings of each item. Negative residual variances were set to zero, which resulted in a factor loading of 1.00.

5.3. Results from MSEM

The statistical evidence is strong, in terms of the ICC and CFA results, that multilevel analysis is appropriate for these data to test the hypotheses. The use of MSEM requires two steps: (1) assessing the goodness of fit of the hypothesised path model; and (2) testing the parameters in the hypothesised model.

The fit indices shown in Table 4 indicate that the hypothesised model provides a good fit for the data. In addition, as indicated in Table 4, assessments of the parameter estimates suggest that all paths from trust, norm of reciprocity and power distance to SDMC are statistically significant in the hypothesised direction at both the within and between levels. However, the path from the high–low context to SDMC is only statistically significant in the hypothesised direction at the within level; the relationship at the between level is not significant.

6. Discussion

This research examines the possibility of adverse effects of bonding-view social capital. Essentially, we examine if too much of a good thing – social capital – drives the negative outcome of SDMC. Furthermore, given the nested nature of such social relationships in groups, we employ the appropriate analysis technique of MSEM to capture the relationships between latent variables at both the individual and firm levels.

In considering how the risks of social capital manifest, rather than examining potential moderators that could cause an inverted-U relationship between social capital and beneficial organisational outcomes (Pillai et al., 2017), we investigate SDMC as a potential mediator operating simultaneously to undermine the beneficial effects of social capital. Our investigation has borne fruit, identifying that reciprocity norms increase SDMC at both the individual level and the firm level. This is an important result, as research of the negative outcomes of reciprocity norms has been limited (Tangpong et al., 2016), investigating only its impact on inducing corruption, copyright infringements and ethical compromise (Abbink, Irlenbusch, & Renner, 2002; Shang, Chen, & Chen, 2008; Tangpong et al., 2016). Furthermore, our results highlight the specific way in which reciprocity norms can undercut the free flow of information that is important to the dialectical process. When organisation members hold back their contributions due to a sense of obligation to the group and its way of seeing the world, the ability to critically analyse ideas and perceptions is weakened to the detriment of the organisation (Pillai et al., 2017). The current results expand the line of this research inquiry, articulating that decision-making tends to be constrained under the influence of norm of reciprocity.

The benefits of trust, however, continue to be underscored, as it dampens the deleterious effects of SDMC at both the individual level and the firm level. Social capital research identifies the importance of trust, as trusting relationships reduce the need to monitor employees and employ other control mechanisms (Adler & Kwon, 2002). Yet, the results reported here, along with the negative relationship found by Li et al. (2013), demonstrate the importance of trust in reducing constraints on decision-making. Our study extends prior research by explicating its complementary beneficial effects, directly and indirectly through SDMC, at both the individual and firm levels.

Also examined in this research is the role of relevant culture constructs – power distance and high–low context – on SDMC to

Table 2
Correlations and composite reliabilities of all latent variables.

Variables	1	2	3	4	5
Firm level (n = 148)					
1. Trust	.99 (.95)				
2. Norm of reciprocity	.53*	.99 (.97)			
3. Power distance	-.56*	-.45*	.94 (.68)		
4. High–low context	-.45*	-.52*	.56*	.95 (.91)	
5. SDMC	-.66*	-.24*	.72*	.47*	.99 (.95)
Individual level (n = 1394)					
1. Trust	.71 (.20)				
2. Norm of reciprocity	.25*	.76 (.44)			
3. Power distance	.10	.02	.65 (.21)		
4. High–low context	-.10	.02	0.11	.31 (.19)	
5. SDMC	-.27*	.32*	.26*	.11	.86 (.38)

Bold values in diagonals are composite reliability of latent variables, and values in parentheses are AVE values.

*p < 0.05.

Table 3
Loadings and ICC values at both individual and firm levels.

Construct and items	Loading		ICC
	Within	Between	
<i>Trust</i>			
Neither the colleague/superior nor I take advantage of each other even when the opportunity arises.	0.44/0.41	0.93/0.99	0.37/0.33
The colleague/superior and I can keep the promises we make to one another.	0.46/0.45	0.99/0.99	0.32/0.31
Neither the colleague/superior nor I knowingly do anything to disrupt communication.	0.47/0.43	0.90/0.99	0.29/0.34
Both the colleague/superior and I behave in a consistent manner.	0.42/0.48	0.99/0.99	0.32/0.33
Both the colleague/superior and I are truthful in dealing with one another.	0.42/0.43	0.99/0.99	0.32/0.32
<i>Norm of reciprocity</i>			
I know that the colleague would help me, so it is only fair to help the colleague/superior.	0.63/0.62	0.96/0.99	0.29/0.39
I trust the colleague/superior would help me if I were in a similar situation.	0.70/0.71	0.98/1.00	0.28/0.22
<i>SDMC</i>			
When making a decision, I need to be concerned about how it benefits the colleague/superior.	0.64/0.65	0.95/0.99	0.45/0.44
It is impossible to make decisions completely according to my own preferences because I have to consider the colleague/superior.	0.60/0.61	0.98/0.97	0.47/0.43
The relationship with the colleague/superior constrains my freedom in making decisions related to work.	0.63/0.61	0.98/0.99	0.43/0.43
It is imperative to consider the colleague's/superior's concerns when making decisions.	0.63/0.63	0.99/0.98	0.41/0.42
I have to give up my initial decisions due to 'renqing' issues with the colleague/superior.	0.59/0.60	0.94/0.96	0.39/0.42
<i>Power distance</i>			
In most situations, superiors should make decisions without consulting their subordinates.	0.43	0.92	0.33
In work-related matters, superiors have a right to expect obedience from their subordinates.	0.38	0.71	0.25
Employees who often question authority sometimes keep their superiors from being effective.	0.47	0.70	0.30
Once a superior makes a decision, subordinates should not question it.	0.50	0.88	0.35
Employees should not express disagreements with their superiors.	0.45	0.91	0.36
Superiors should be able to make the right decisions without consulting with others.	0.48	0.63	0.23
Superiors who let their subordinates participate in decisions may lose power.	0.48	0.95	0.37
<i>High-low context</i>			
I usually try to avoid showing disagreement openly in a discussion because we prefer to maintain a sense of harmony in meetings.	0.44	1.00	0.35
I believe that maintaining harmony and a positive tone in a meeting is more important than speaking honestly.	0.42	0.90	0.34

Note: Trust, norm of reciprocity and SDMC are modelled as second-order constructs consisting of responses about the respondents' relationships with their supervisors and with a colleague of their choice. The number before slash represents the loadings and ICC values of colleague-responses items, whereas the number after slash represents the loadings and ICC values of superior-responses items.

assess the explanatory power of culture in constraints on decision-making in organisations due to social relationships. The results support the hypotheses for the culture construct of power distance at both levels, and for the culture construct of high–low context communication style at the individual level. The culture construct of power distance verifies the central role of hierarchy on SDMC. The results are consistent with the statement from Wu and Chaturvedi (2009) that power distance is an important element of the internal social relationship for shaping management

Table 4
Results from MSEM.

Hypothesis	Level	Estimate	Support
H1a	Within	−0.348***	Yes
H1b	Between	−0.470***	Yes
H2a	Within	0.372***	Yes
H2b	Between	0.391**	Yes
H3a	Within	0.182**	Yes
H3b	Between	0.523***	Yes
H4a	Within	0.201*	Yes
H4b	Between	0.138 ^{ns}	No

$\chi^2/df = 1.34$, CFI = 0.97, TLI = 0.96, RMSEA = 0.02.

and SRMR_{within} = 0.03, SRMR_{between} = 0.7.

***significant at the $p < 0.001$ level **significant at the $p < 0.010$ level.

*significant at the $p < 0.050$ level ns: not significant.

practices. Clearly, individuals' attitudes and the firm-level shared perceptions of unequally distributed power are determinants of SDMC.

Regarding high–low context on SDMC, the findings support that individuals with a high context communication style tend to sacrifice their decision-making freedom to maintain harmony and avoid conflict. However, at the firm level, the role of hierarchy is not verified because the non-significant result regarding the firm level effects of the high–low context on SDMC. As mentioned above, the underlying reason for firm-level high context is the existence of hierarchy (Kim et al., 1998), but this relationship is yet to be empirically validated. Future social capital research should investigate the impact of hierarchy on the high–low context.

Clearly, a multilevel perspective is important in management science for continued refinement of researchers' knowledge base and theoretical models for a more complete understanding of complex organisational processes (Hmieleski & Baron, 2009). The multilevel approach enables us to consider in a simultaneous fashion both the individual- and firm-level variables to emphasize the nesting nature of firms. This perspective allows us to consider individuals' behaviour and values as a characteristic that can be traced back not only to individuals but also to the firm phenomenon (Magni, Palmi, & Salvemini, 2017). Additionally, the predictive power of individual- and firm-level perceptions may differ depending on the construct of interest (Kiersch, 2012), as we find with the high–low context; hence, continued research is warranted.

7. Implications

The results of this study have several significant theoretical implications. First, different facets of social capital might have a different effect on SDMC. This is a new angle in social capital research. Specifically, our study offers insights into the importance of trust for decreasing constraints on decision-making. Meanwhile, we also contribute to social capital theory by identifying SDMC as a specific negative outcome of norm of reciprocity. Scholars in the area of social capital have made repeated calls for the study of the negative effects of social capital in organisations (Tsai & Ghoshal, 1998), but more empirical research is needed to identify specific negative outcomes of social capital. Our development and empirical analysis of the hypothesised multilevel model deepens understanding of the potentially deleterious consequence of social capital and, in so doing, responds to recent calls for such research.

Second, given that the theoretical model was based on literature developed mainly in Western contexts, testing the theoretical model in the context of China offered an appropriate opportunity to evaluate the applicability of social capital theory in a different context. Results suggest that social capital is appropriate for the

Chinese organisational context. However, caution is necessary regarding this conclusion in light of the idea of contextualisation, which ‘means incorporating the context in describing, understanding, and theorizing about phenomena within it’ (Tsui, 2006, p. 2). Contextualisation encompasses four facets in terms of how to conduct research in Chinese management: 1) choosing the phenomena to study, 2) theory to explain the phenomena, 3) measurement and 4) methods. The second and third facets are relevant here. Specifically, we use social capital and decision-making theories to conceptualise SDMC and the relationship of this construct with four independent variables from social capital theory and culture theory. We employ existing measures to study the hypotheses using responses to survey items and appropriate analytical approaches. We also used a scale of SDMC developed in the Chinese context, which is a good example of contextualisation. Yet, we did not incorporate a grounded theory approach to understand what our independent variables mean to Chinese managers and employees in their work relationships with each other. Further research considering such an approach is necessary to fill the gaps in our approach.

Finally, as firms are multilevel in nature – individual members nested in firms – single-level research tends to lead to erroneous conclusions. This is one of the first studies to have advanced our understanding of the multilevel phenomena of social capital and culture by properly conceptualising and modelling firm-level constructs as contextual effects, based on the aggregation of corresponding individual characteristics. With the anticipation that social capital and culture could operate at the individual and firm levels, the multilevel model developed for this research not only examines the effects of social capital and culture at the individual level but also validates the firm-level effects of social capital and culture on SDMC. The multilevel model was tested using MSEM. This method of inferring firm-level constructs from individual-level indicators accounts for the error involved in cross-level analysis, resulting in a more accurate representation of firm-level constructs than alternative methods used to aggregate individual-level responses to the firm level. By testing the proposed multilevel model with MSEM, our study serves to promote best practice in capturing multilevel phenomena in organisation science, as well as to answer numerous calls for multilevel research (e.g. Eveleens, 2017).

The findings should be of particular interest to employees and managers of Chinese firms. First, both bright- and dark-side effects are systematic consequences of relationship development. Although these consequences are unavoidable, they can be managed successfully to reduce harmful effects (Abosag, Yen, & Barnes, 2016). On the one hand, trust has the most powerful effect: individuals gain more freedom in decision-making when relationships are trustful. In addition, the results highlight that a trusting environment is a necessary condition for reducing the constraints on decision-making. The foundation of building a trusting environment is that the head of every department should seek to avoid suspicion and conflict with each other and with their employees in the first place. This is due to the fact that superiors are important initiators of trust, and their behaviours have a direct impact on employees’ trust on their colleagues and superiors (Ng & Chua, 2006). On the other hand, although individuals may benefit from the norm of reciprocity, these benefits must be weighed against the cost of reduced autonomy to do their work as they see fit (Uhl-Bien & Maslyn, 2003).

Moreover, managers need to be aware of their firm members’ different cultural values, given that even with a high trust relationship, high levels of power distance and high context communication may also lead to SDMC. Managers should be aware of the cultural boundaries in applying theories developed in Western contexts (i.e. social capital theory), where there are likely higher

concentrations of low power distance and low context communication style. Moreover, because of enormous market and economic growth, the Chinese market is attractive while the risk of failure is high. When developing business strategy, understanding the impact of Chinese culture on different management theories is important to mitigate the risk of failure in this part of the world.

8. Limitations and suggestions for further research

The findings reaped from our study need to be considered within the context of the limitations of the study, which also open several avenues for further research. First, our study focused on the social capital definition and conceptualisation of Adler and Kwon (2002). Nahapiet and Ghoshal (1998) identify three dimensions of social capital as structural, relational and cognitive, thus reflecting the configuration and pattern of relationships between actors, the quality of relationships and the similarity between actors, respectively. In our research, we focused on dense networks (i.e. the structural dimension), and norm of reciprocity and trust (i.e. the relational dimension). Future research should consider the broader conceptualisation of social capital by investigating diffuse network. Perhaps even more importantly, the cognitive dimension of social capital would be important to explore, particularly in China. The cognitive dimension should explore differences in decision mode, which includes how decisions are made and how the approach to decisions is chosen (Weber, Ames, & Blais, 2005). Culture could impact the choice, as social obligations drive actions and behaviours in China (Weber et al., 2005; Xiao & Su, 2004). Furthermore, there are cultural differences related to work motivation and the interpretation of behaviours (Xiao & Su, 2004); hence, the cognitive dimension is likely to yield important insights.

Our study was carried out in China’s TEDA. Although the sample of respondents was adequate, it cannot be considered representative of the general population of China. Therefore, the framework could potentially be applied in other Chinese cities or development areas using a similar conceptual model and survey items. Although some hypotheses were found to be non-significant in the current research, a single research project does not provide sufficient evidence that this result will be broadly supported throughout China and other Asian countries. To ensure that the theoretical model is robust and generalisable, further studies are encouraged.

Individuals rated the survey items of social capital, SDMC, power distance and the high–low context, raising concerns regarding the potential impact of common source variance. Nonetheless, this study also treated these above-mentioned constructs as a firm-level variable, which helps reduce possible common source variance by aggregating responses within each firm. Moreover, in our study, as well as in previous research (e.g. Kirkman et al., 2009; Warner-Söderholm, 2013), the reliability of power distance and the high–low context were found to be marginal. Further research should pay considerable attention to scale development of power distance and high–low context and explore more elaborate measures of these two constructs. In addition, future studies are encouraged to extend our study to cover two culturally distinct countries in the analysis which would allow for comparative studies. Further studies could measure power distance and the high–low context at the individual level but should include more countries to ascertain the generalisability of cultural value and social capital effects beyond China.

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