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CEO's social embeddedness and R&D strategy of entrepreneurial firms

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ABSTRACT

Drawing from the strategic leadership and social capital perspective, the paper examines how CEO's social embeddedness determines the R&D strategy of entrepreneurial firms in China. We discuss in detail one unique aspect of social embeddedness of CEOs in China—political networking—that have evolved from the country's unique social and historical context. We argue that entrepreneurial firms with CEOs that have resorted to the most traditional way of social support—political networking—would choose the R&D strategy that can help them maintain and enhance the support from the political networks and can enable them to take full advantage of such networks. As a result, they tend to pursue exploitative R&D, which incur lower risks and yield quicker return than exploratory R&D. This will benefit and please the parties in the political network, who in turn will provide further support. We further argue that in China the CEO's decision is likely to be challenged when the board is more powerful, a powerful board will strengthen the relationship between CEO's political networking and the R&D strategy.

KEYWORDS

Social embeddedness; R&D strategy; Entrepreneurship; Political networking; Social capital.

INTRODUCTION

Unlike the previous research on R&D strategy of entrepreneurial firms that mostly focuses on the organizational and environmental factors, this paper fills in the research gap by drawing from the strategic leadership perspective[1,2] and social capital perspective[3,4]. In particular, we investigate how the CEO's social embeddedness influences the entrepreneurial firm's R&D strategy. In the strategic leadership view, all firm strategies are the choice of the top executives, and reflect the demography, process, and the social connections of the top management team[5]. Among these top executives, CEO is regarded as the gatekeeper of the firm, and typically exerts the dominant influence[6]. Literature in strategy and organizational theory has paid significant attention to the existence and strategic importance of top executives' social capital and social networks[7,8]. These studies consistently report that the social embeddedness of the top executives matters in firm's decision making and various performance outcomes. This paper, therefore, focuses on the social embeddedness of the gatekeeper, the CEO, and links this to the entrepreneurial firm's R&D strategy.

Moreover, the setting of this study is in China, a country that is going through a societal transformation on a massive scale from the traditional centrally-controlled economy to the market economy. The unique social and historical context of China presents some unique characteristics about entrepreneurship in China. We argue in this paper that social embeddedness has some additional meanings in China. In particular, we articulate one unique aspect of social embeddedness with regard to entrepreneurship in China, namely, political networking. As we will detail later in the paper, the extent to which the CEO holds a political network and whether or not the Board is powerful influences the entrepreneurial firm's risk orientation, opportunities, and threats, and in turn determines the firm's R&D strategy. This is in response to the call from some scholars—"We recommend that scholars of organizations think deeply about China as a context and consider China as an empirical setting where the boundaries of existing knowledge on organizations can be extended"[9].

LITERATURE REVIEW

Social embeddedness

The term of "embeddedness" was first introduced by Polanyi in The Great Transformation[10], and has been used subsequently by scholars in sociology. Research on embeddedness draws heavily from concepts and approaches developed to understand the embeddedness of economic activity in wider social structures. Scholars seek to demonstrate that market exchange is embedded in, and defined by, larger and more complex social processes[11-13].

Dacin et al[14] have identified four types of embeddedness. First, structural embeddedness refers to the linkages between social actors (both firms and individuals). The boundaries around these ties and resultant networks serve to constrain, as well as provide opportunities for, interconnected actors[15,16]. Second, cognitive embeddedness focuses on the sources and consequences of cognition at multiple levels of analysis. This is in concern with how symbolic representations and frameworks of meaning affect individual and corporate actors as they interpret and make sense of their world[17]. Third, cultural embeddedness refers to the ways shared understandings and meanings shape organization activities, structures, and processes. Research studies authority and identify[18], and control, hierarchy, and expertise. Fourth, political embeddedness focuses on how societal struggles for power and the distribution of resources and opportunities shape organizations, interorganizational relationships, and organization strategies and outcomes. Political embeddedness connects with above cultural and cognitive embeddedness at both micro and macro levels[13,19].

CEOs are entities embedded within one or more social systems[20]. The impact of the CEO on the firm's strategy and performance can be attributed to the nature of the individual's accumulated social capital. This is the foundation for the arguments in this paper. In the following subsection, we extend the understanding of social embeddedness on a context-specific basis. In specific, we discuss how CEO's social embeddedness has unique meanings in China.

The CEO's social capital

After Coleman[21] and Burt[22] with many other scholars, who who put forward in Social Science Research the concept of "social capital" and introduced social capital from the individual level to an enterprise level, there has been a rising interest in social capital in the field of management. Scholars in the areas of strategy, marketing, human resources and so on studied the firm's social capital from their respective perspectives. There are a variety of definitions on the idea of social capital. Adler and Kwon[20] summarized 20 of them, which distinguishes each other in the research perspectives. Social capital focuses on the issue of "who are you acquainted with", and therefore it pays great attention to network connections and relationships. In this way, the social capital of a CEO refers to values generated by the connections and relationships between the CEO and the stakeholders inside and outside a firm[20]. In fact, the values are brought by a series of behaviors associated with social relations[21]. Besides them, Lin and Vaughn[23] regarded social capital as resources rooted in the social network that are available to people when necessary. The relationships of the people in the society are varied, but only those good ones can produce the above-mentioned values, because good relationships among the whole network stimulate people to share information more willingly, so that the firms the mutual influences between enterprises grow and the unity and collaboration of individuals in the network improve[20-21]. Similarly, Adle and Kwon also pointed out that the values of the CEO's social capital are generated by the social structure of the CEO's networks[20]. According to them, the CEO is the focus of a firm, whose fame is an important part of his social capital. Therefore, social network CEO is of great significance for the development of an organization.

As no individual could live outside the social environment, the CEO is in the same way "embedded" in social systems[20]. A CEO has accumulated personal social capital for many years in the society, and has formed a unique mode of operating this capital in his own way, which profoundly affects the firm's strategic decision-makings.

THEORETICAL FRAMEWORK

In this section, we develop the model that links the CEO's social embeddedness as described above and the entrepreneurial firm's R&D strategy.

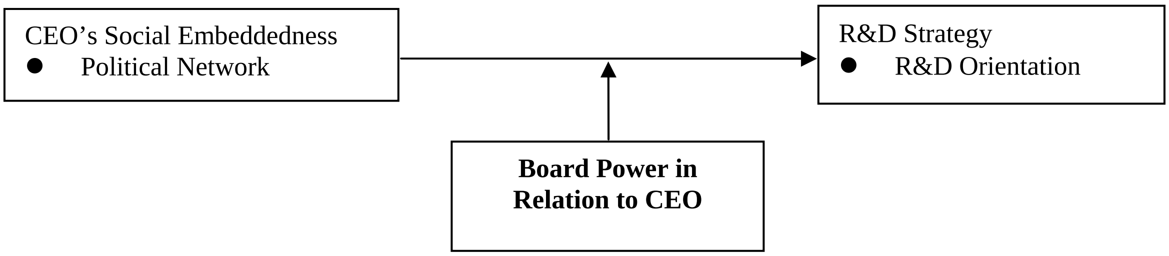

Figure 1 : Model of CEO's social embeddedness and R&D strategy of entrepreneurial firms in China

R&D orientation

Scholars have differentiated between firm's exploratory search effort and exploitative search effort [24]. Consistent with March's conceptualization, exploration involves "new possibilities" while exploitation pertains to "old certainties"[25]. Exploitative R&D seeks incremental innovation that aims to improve the firm's existing products. In contrast, exploratory R&D aims for more radical innovation, for instance, brand new product. Compared with exploitative R&D, exploratory R&D is typically associated with more variance in the innovation outcomes. Besides, exploration takes a longer time to get the returns[26-28]. Exploitative R&D often relies on revisiting and combining firm's existing knowledge and searching in the vicinity of the firm's existing competence[29-31]. Due to the path dependency[32], learning and building on internal knowledge or knowledge that is close to what the firm has already known is a relatively easy and smooth process, and the result is to a large extent under the control of the firm. However, exploratory R&D often proves necessary to span the organizational boundary and/or technological boundary for new knowledge[33]. The process of search, transfer, and assimilation of new knowledge from distant places and/domains often takes a longer time. The process is more uncertain as the firm often does not have full control of it. In short, exploitative R&D brings about returns on a shorter-term, and with less risk, whereas exploratory R&D brings about returns on a longer-term, and with more risk. However, research shows that breakthrough innovations and technology discontinuities often result from exploration search rather than exploitative search.

The CEO with a strong political network is less likely to pursue exploratory R&D. As described earlier, the foundation of a CEO having a strong political network and gaining maximal support from this political network lies in the firm's ability to benefit all the parties in the network continuously. Therefore, in order to please those parties so that the firm can gain further support from this political network, the utmost goal of the entrepreneurial firm is to maintain steady performance and continuous growth. For instance, when the firm is selected as "star company" by the local government as a result of the firm's strong political network, the performance of the local government will be positively evaluated by their superiors when this "star company" achieves high performance. In turn, when the government benefits from presenting the performance of its "star company" to its peers, it will further help and support this firm. Over time in this dynamic relationship, there is a tacit understanding between the parties and the CEO that the firm is better off and to all's benefits if the firm follows a risk-averse growth path. Such type of social embeddedness will in turn imprint the firm's R&D strategy, and drives the CEO to invest in shorter-term, lower-risk projects, therefore pursue more exploitative R&D rather than exploratory R&D.

P1: A Chinese entrepreneurial firm with a CEO that has a strong political network will be more likely to pursue exploitative R&D as opposed to exploratory R&D.

It is not always the case that entrepreneurial firms backed by strong political networks pursue exploitative R&D at all time. However, when there do occur instances when these firms take on exploration and develop brand new products, it is often not because the firm chooses to do so, but because such a radical change is expected by certain party in the political network, such that the change is a solution that can benefit all. This again speaks to the fact in China that when the CEO and thus the firm is embedded in a strong political network, the firm is no longer a fully autonomous entity that can make the decision completely to its own discretion. The various connections between the firm and the parties in the political network necessarily result in the fact that the strategy of the firm is potentially a joint product of all in the network, and that the firm is virtually a vehicle to fulfill the benefits for the parties in the political network. Although this is not explicitly stated on any paper, it is a tacit rule of the game. For instance, one of the CEOs that the authors interviewed told the following story. Owing to his strong connection with the officers in the central government, his firm received a large amount of loan. However, the condition for receiving that loan was that they develop a certain product that was related to a major government initiative on tax control. The government trusted the CEO and the firm's technological capability, and would like to take that advantage in launching this initiative. At the same time, the firm benefited from opening this new market, and gaining prestige and first-mover advantage in this market. Firm's such exploratory R&D was thus directed by the political network it is embedded in so as to realize mutual benefit. Such case is not uncommon at all in China.

P2: When a Chinese entrepreneurial firm with a CEO that has a strong political network pursues exploratory R&D, this is more likely to originate from parties in the political network as opposed to the firm's own decision.

Moderating effect of board power in relation to CEO

Although it is typically assumed that the CEO is the gatekeeper and controls firm strategies, research also shows that a relatively powerful board will also exert influence on firm's decision making[34]. In this section, we argue that the board power in relation to CEO will moderate the CEO's decision making on firm's R&D strategy.

By design, the board is expected to overcome agency problem in the corporate governance, that is, to monitor the decisions of the top management on behalf of the shareholders. Recently, scholars have pointed out that, besides the function of monitoring, the board can also participate in the strategy making by providing alternative information and perspectives[35]. As board involvement may be high in some companies, the relative power between the board and the CEO becomes a subtle factor in firm's strategy making.

There are several factors that indicate the relative power. First, the board has more power when there are more outsiders than insiders on the board. As the CEO may be in a position to influence an insider director's career advancement within the firm, the insider directors are typically reluctant to challenge the CEO's decision. When the board is dominated by outsiders, the board becomes more independent, and is better able to constrain CEO's preferences and exert stronger control over the CEO[36]. Second, the board has more power when the CEO and board chair positions are split. When the CEO takes these dual positions, s/he will have greater informal stature as well as formal authority over board members, whose influence will therefore be limited[37]. Third, the board has more power when the directors have longer tenure than the CEO, as long tenure indicates more familiarity with the firm's resources and routines, and thus confers expert power CEO[38]. Fourth, the board has more power when one or more directors own or represent the ownership of substantial stock. In this case, the board has more interests aligned with the shareholders, and thus has more incentive to exert influence to the directors' own interests[39].

Westphal & Zajac find that in selecting successor CEOs and successor directors, the relative CEO/board power can predict whose preferences are realized.[40,41]When the board has more power than the CEO, the board will have a greater influence in firm's decision making. Therefore, whether or not the CEO's preference in strategy is consistent with the board's preference will determine the extent to which the CEO's decision can be carried out.

When the CEO has a strong political network, in China this is viewed as a highly valuable resource for the company. All the stakeholders, including the board members, are more than willing to keep and grow this resource rather than to lose or weaken it. As such, when the board is powerful, it will exert more influence on the CEO to make strategies, including R&D strategies, that are conducive to maintaining such a strong political network. Pursuing exploitative R&D rather than exploratory R&D, and selecting domestic R&D partners rather than foreign R&D partners are more conservative strategies that avoid substantial risk while getting returns sooner. As such, these strategies will please all the parties in the political network, and thus meet the interest and the expectation of the board. In turn, the board will be strongly supportive to the

CEO for these decisions. When the board is more powerful, and accordingly more participative, the CEO will gain more support from the board and thus become more confident in making these decisions. In other words, a powerful board will strengthen the likelihood of a CEO with a strong political network to purse exploitative R&D rather than exploratory R&D, and to select domestic R&D partners rather than foreign R&D partners.

P3: When the board is more powerful in relation to the CEO, the relationship between the CEO that has a strong political network and the firm's strategy of pursuing exploitative R&D as opposed to exploratory R&D will be strengthened.

CONCLUSIONS

This paper focuses on one important activity by the CEOs of these entrepreneurial firms—making R&D strategy. We argue that CEOs that have resorted to the most traditional way of social support—political networking—would choose the R&D strategy that can help them maintain and enhance the support from the political networks and can enable them to take full advantage of such networks. As a result, they tend to pursue exploitative R&D, which incur lower risks and yield quicker return than exploratory R&D. This will benefit and please the parties in the political network, who in turn will provide further support. Likewise, these CEOs tend to choose domestic R&D partner rather than foreign partner. Aside from the lower risk and quicker return involved in partnering with domestic firms, the political network, which is typically domestically-based, can serve as a media to for the firm locate the most suitable partners, and more importantly, can serve as an effective protection of the focal firms from the opportunism and ill-behaviors by their partners.

The paper has further pointed out in China the CEO's decision is likely to be challenged when the board is more powerful. This speaks to the dilemma where the old way of business (i.e., based on *guanxi* and political networking) meets the new way (i.e., market and international oriented) in China. There are still tensions on that, and further prosperity of entrepreneurship in China requires resolution of this tension.

There are a number of avenues for future research. CEOs could be endowed with a new type of social support in China due to their overseas background would follow a different R&D strategy. These CEOs are considered as elites by their

Chinese peers and receive considerable admiration and high expectation. Consequently, they tend to pursue more ambitious and aggressive strategies that match their image perceived by the general public. Therefore, they are more likely to pursue exploratory R&D and seek foreign R&D partners. Partnering on an international basis can also be attributed to their having connections overseas, their experience of doing business with a transparent and standard rule of the game, and their hesitance of dealing with the flexible rule of the game within China.

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