Access to Bank Financing, Organizational Factors, and Productivity in Foreign Direct Investment: Evidence from Taiwanese MNC Subsidiaries in China

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Abstract

This is the first study to address the effects of political connections in terms of having access to bank loans on the economic outcomes of multinational corporation (MNC) subsidiaries in China. Operating in an emerging economy (such as China) with underdeveloped legal and business environments is a challenge for the business strategy of MNCs familiar with more advanced institutional systems. Because China has long implemented strict controls on foreign capital, foreign subsidiaries in China generally encounter tremendous difficulties in moving funds into and, especially, out of the country. Obtaining a high amount of financing from Chinese banks (CBF) enables MNC subsidiaries to avoid risk and increase their securities and elasticity in financial planning, which largely benefits the overall development of enterprises. We believe that given China's unique government-controlled banking system, the ability to obtain loans from Chinese banks is a good indicator to measure the strength of ties MNC subsidiaries have with government officials. In this study, we focused on Taiwanese MNC subsidiaries in China as the empirical context. It shows that, for a Taiwanese subsidiary, CBF is positively related to subsidiary productivity in China. Additionally, our results suggest that headquarter size positively moderates the association between CBF and subsidiary productivity. However, none of the subsidiary-level organizational factors we studied, including subsidiary size, subsidiary age, or subsidiary technological capabilities, exerts a substantial moderating effect on the CBF--subsidiary productivity link.

Keywords: Bank Financing, China, Foreign Direct Investment, Firm Performance, MNC Subsidiaries, Organizational Factors

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1. Introduction

To the best of our knowledge, this is the first study to address the effects of political connections in terms of having access to bank loans on the economic outcomes of MNC subsidiaries in China. Operating in an emerging economy (such as China) with underdeveloped legal and business environments is a challenge for the business strategy of MNCs familiar with more advanced institutional systems. China's recent economic transition has resulted in a great level of institutional uncertainty (Park and Luo 2001). In recent years, there has been an increasing recognition of the importance of analysis about the external circumstances in emerging economies, in particular in China (OECD, 2017; Pan and Chi, 1999).

For MNCs investing in China, foreign exchange control is the most common problem. Because China has long implemented strict controls on foreign capital, foreign subsidiaries in China generally encounter tremendous challenges moving funds into and, especially, out of the country (European Economy, 2010; International Trade Administration, 2019). More importantly, strict laws and regulations—such as the Company Law, relevant tax regulations, as well as China's transfer pricing rules—create further obstacles to repatriating funds. Thus, foreign companies operating in China have to understand the issue of funds repatriation from the very beginning to secure profits earned (European Economy, 2010; International Trade Administration, 2019). To reduce uncertainty and increase their flexibility in using funds, MNC subsidiaries in China must understand how to access financing from Chinese banks (CBF). Obtaining a high amount of CBF enables MNC subsidiaries to avoid risk and increase their securities and elasticity in financial planning, which largely benefits the overall development of enterprises in China.

In China, politics comes first, and the banking system is no exception. In fact, Chinese banks are predominantly state owned, and lending decisions are significantly affected by the government of the People's Republic of China (PRC), which until recently was greatly prejudiced against the private sector. The government usually requires Chinese banks to grant loans to state-owned enterprises (SOEs), and decisions are based not on commercial considerations but on political pressure (Cheng and Wu, 2019; Chen, Liu, and Su, 2013; Cull and Xu, 2000; Cull, Li, Sun, and Xu, 2015; Li, Meng, Wang, and Zhou, 2008; Zhou, 2009).

For example, political relationships are critical factors in China's banking system: Politically connected enterprises usually have preferential access to bank loans (Cheng and Wu, 2019; Cull and Xu, 2000; Cull et al., 2015; Zhou, 2009) and are also likely to perform better (Chen et al., 2013; Li et al., 2008). In other words, enterprises in the domestic private sphere with greater political connections obtain more bank loans, which consequently leads to better firm performance in China.

This study differs from prior research that confirms the significant positive effect of political connections on bank loans and firm performance for China's domestic private enterprises. As discussed previously, China is characterized by highly restrictive controls over foreign capital as well as a lack of transparency for MNCs. The allocation of bank loans involves government intervention and is biased in favor of SOEs. Because of the liability of foreignness and information asymmetry, it is very difficult for foreign subsidiaries to seek bank loans in China (Chiang, 2012; Lien, 2010). It stands to reason that, for foreign subsidiaries, greater political connections and government support are the key to overcome this discrimination and information asymmetry to acquire more loans from Chinese banks. Hence, we believe that given China's unique government-controlled banking system, the ability to obtain loans from Chinese banks is a good indicator to measure the strength of ties MNC subsidiaries have with government officials. This study opens up a promising new direction for research on this phenomenon by examining whether, for MNCs operating in China, the ability to obtain CBF relates to subsidiary performance. Moreover, Park and Luo (2001) defined political connections (political guanxi) as interorganizational networks. Organizations connect with others to facilitate information exchanges and resource flows, to increase competitiveness, and to increase organizational advantages (Nohria and Eccles, 1992). Some empirical evidence also indicates that interorganizational connections influence competitive advantages (Tsang, 1998; Yeung and Tung, 1996) and firm performance (Luo and Chen, 1996). It is important to note that the extent of these interorganizational network linkages (political connections, etc.) is idiosyncratic to the firm and may hinge on various organizational characteristics, such as size, age, and strategic capabilities (Park and Luo, 2001; Xin and Pearce, 1996). Thus, this study also respectively explores the moderating effects of a headquarters-level organizational factor and three subsidiary-level organizational factors on the link between CBF and performance.

The findings of this study make three significant contributions to our understanding of CBF and the operations of MNC subsidiaries in China. First, because political influence always comes first in China's banking system, we believe that the ability of an MNC subsidiary to obtain a loan from a Chinese bank is a good proxy for its political connections. Second, CBF is positively related to subsidiary productivity in China. Third, our empirical results suggest that for an MNC subsidiary in China, headquarters size positively moderates the association between CBF and subsidiary productivity. (Limited by the data available, we focus on headquarters size for the headquarters-level analysis.) However, none of the subsidiary-level organizational factors we studied, including subsidiary size, subsidiary age, or subsidiary technological capabilities, has a substantial moderating effect on the link between CBF and subsidiary productivity. Thus, this study confirms and extends earlier conceptual work on the securing of bank financing and political connections in emerging economies (China, etc.). It also verifies that multiple dimensions of political connections are pertinent and essential in China.

The remainder of this paper is organized as follows. In the next section we present the relevant theories behind our hypotheses about how CBF is associated with firm performance as well as analyze the moderating effects of organizational factors on the relationship between CBF and performance. We then review the data and methods used to test these hypotheses empirically. We conclude with a discussion of the results and suggestions for future research. Figure 1 depicts our conceptual model.

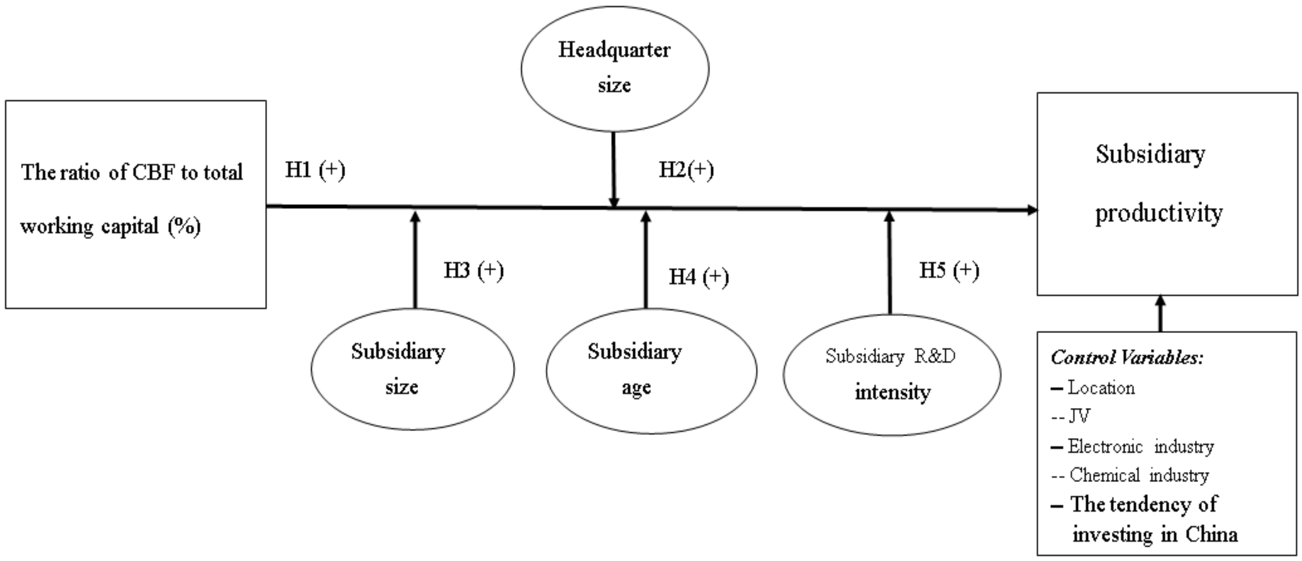

Figure 1. Conceptual Model

2. Theory and hypotheses

2.1. Social network theory and political connections

According to social network theory, economic operations are largely embedded in networks of interorganizational (or interpersonal) connections, and managers of enterprises may use the social capital inherent in their connections to affect the allocation of resources and improve economic outcomes (Li, Zhou and Shao, 2009; Peng and Luo, 2000). The function of connections is more important in emerging economies (China, etc.), in which formal institutional regulations are still weak. Therefore, enterprises depend on informal institutional constraints, such as political connections, to assist in their economic operations (Xin and Pearce, 1996).

2.2. Prejudice against private enterprises in China's banking system

China's banking system is predominantly composed of state-owned banks (SOBs), which were not permitted to make loans to private enterprises until 1997 (Park and Sehrt, 2001). Because their senior managers are selected by the government, Chinese banks are required to implement government policy and thus have never been highly market-oriented institutions. China's five SOBs (Industrial and Commercial Bank, Bank of China, China Construction Bank, Agricultural Bank of China, and Bank of Communications) together play the role of "government policy banks" (OECD Economic Survey of China, 2017). Beginning in the late 1990s, the PRC government embarked on a significant commercialization of SOBs. In 2010, when all top-tier banks (the big 5 banks plus 12 joint-stock commercial banks) were listed on the stock exchange, the commercialization reform was considered complete (Chen et al., 2013; Chen and Wu, 2019). Although the PRC government gradually abdicated the direct control of loan allocation in the commercialization reform, the fact that it is a majority owner of listed banks implies that it still has remarkable authority to affect lending decisions. In other words, policy lending is still the chief consideration of Chinese banks, and ordinarily lending decisions do not match economic fundamentals (Zhou, 2009).

In China, the unfair competitive environment is likely to hinder private enterprises from obtaining bank loans directly. Because of the preferential policy of the government, SOEs secure the lion’s share of financing from SOBs (Chen and Wu, 2019). SOBs usually view private companies as relatively higher loan risks (Ferri, 2009). SOEs commonly enjoy high profitability because they operate in lucrative industries (such as telecommunications, oil, and petrochemicals) that limit the entrance of private firms. They also enjoy preferential treatment in government investment projects that enable them to be more competitive than their private sector rivals. Maybe most notable is that providing loans to SOEs typically connotes strong government support and political warrant. In addition, information asymmetry is severe in lending to private enterprises. This is because managers of private enterprises are reluctant to disclose financial data to the outside world. Because the protection of private property rights in China is insufficient, managers tend to be doubtful about future government policies and are very careful not to expose real financial data to banks (Zhou, 2009). To cope with information asymmetry, Chinese banks use relationship lending as an important mode of contract (Berger and Udell, 2006; IFC, 2000).

2.3. Political connections, bank loans, and firm performance among domestic private enterprises in China

Prior studies have depicted political connections at the organizational level as managerial ties and have explained political connections as managers’ social links with government officials who then help them to achieve organizational goals (Peng and Luo, 2000; Park and Luo, 2001; Luo, 2001). China differs from major economies such as the United States, Europe, and Japan because it is still predominantly ruled by a single political party. In such a political system, the development of government linkages is likely to play a crucial role in influencing economic transactions and business operations as a substitute for an unstable rule of law and informal institutional support (Luo, Huang, and Wang, 2011; Peng and Heath, 1996). Enterprise managers have reported that of eight environmental factors in China that affect firm performance, the state regulatory regime is the most influential, most complicated, and least predictable (Peng and Luo, 2000; Tan and Litschert, 1994). Thus, for China’s domestic private enterprises, the establishment and cultivation of political connections is critical.

Given the legal uncertainty in China, there are significant advantages to be gained from creating connections with government officials. Numerous rules and regulations are ambiguous, and their implementation depends substantially on subjective interpretations by the government. Also, scarce resources (bank loans, land, and human resources, etc.) are allocated mainly on the basis of relationship considerations rather than formal bureaucratic rulings. Therefore, for China’s private enterprises, political connections are able to promote business dealings, whereas formal rules often repress them (Alston, 1989). Research also suggests that institutional uncertainty and weak property right protections necessitate linkages with different government agencies for most private enterprises in China (Peng and Heath, 1996). It stands to reason that China's private enterprises can circumvent bureaucratic difficulties by means of political connections. Politically connected private enterprises are generally more likely to obtain bank loans (Cheng and Wu, 2019; Chen et al., 2013; Cull and Xu, 2000; Cull et al., 2015; Zhou, 2009), have a preferred way of approaching equity markets (Boubakri, Guedhami, Mishra, and Saffar, 2012; Francis, Hasan, and Sun, 2009), carry more favor among legal institutions, and consequently are liable to enjoy better firm performance (Li et al., 2008).

2.4. Bank financing and firm performance among MNC subsidiaries in China

It is generally agreed that MNC subsidiaries are at a disadvantage relative to domestic enterprises as regards various aspects of running a business in a host nation (Zaheer, 1995). Scholars of foreign direct investment (FDI) have suggested that MNC subsidiaries operating overseas usually bear unfavorable costs because of unfamiliarity with the circumstances; cultural, political, and economic dissimilarity; and the need to collaborate across geographic borders, among other factors (Nachum, 2009; Zaheer and Mosakowski, 1997). This liability of foreignness has been the essential phenomenon behind theories of international business. Foreign subsidiaries can effectively circumvent the liability of foreignness through political connections in China's unique political and economic contexts. Political connections are a critical aspect of gaining government support and the crucial resources required to survive and grow in China.

Information about Taiwanese MNC subsidiaries operating in China is opaque to Chinese banks, and it is very difficult for banks to acquire in-depth and timely understanding of the operations of headquarters of Taiwanese MNCs. Hence, it is very possible that only large, prestigious, and powerful Taiwanese business groups are able to obtain loans from Chinese banks (Chiang, 2012; Lien, 2010). In addition, as mentioned previously, the lending decisions of Chinese banks are not based primarily on corporate commercial factors; being able to develop local economies, help SOEs, and support specific industries are often important factors affecting banks' lending decisions. As a result, Taiwanese MNC subsidiaries are generally denied access to loans from Chinese banks, which are available primarily to SOEs (Chiang, 2012).

Therefore, Taiwanese MNC subsidiaries in China need to maintain very strong links with government officials to overcome the potential disadvantages of competing with local Chinese firms. Taiwanese MNC subsidiaries must depend more on political connections to compensate for constraints and disadvantages in China's institutional environment due to the liability of foreignness and information asymmetry in terms of gaining access to CBF. Political connections can enhance the competitive advantages of these subsidiaries by providing access to scarce resources (bank loans, land, etc.) and policy information; this access is extremely important to companies' future development (Thorelli, 1986).

As regards the political connections of MNC subsidiaries in China, researchers have used different measures of ties with government officials (e.g., ties with political leaders in different units of government; officials in industrial bureaus; officials in supporting organizations such as tax bureaus, state banks, and the like.) (Jean, Sinkovics, and Zagelmeyer, 2018; Li et al., 2009; Peng and Luo, 2000). These scholars have used Likert scales to assess the political connections of foreign enterprises in China. However, the use of these measures is not suitable in this study context, because in China political connections usually represent top management secrets (Peng and Luo, 2000), so foreign subsidiaries are very protective of this sensitive information. In addition, Taiwan's domestic politics consists of various political parties that advocate opposing policies toward China. It is likely that, in field interviews, a high proportion of responding Taiwanese firms would be reluctant to reveal the extent of their relationships with PRC government bureaucrats because of Taiwan's sensitive, changing domestic political environment. Therefore, instead of using self-evaluation proxies, we gauge the extent of political connections in a new way. We argue that the fundamental idea behind China's banking system is that bank loans often reflect political connections and government support. This implicit meaning is especially significant for foreign subsidiaries that face China's restrictive controls over foreign capital, its relationship-oriented banking system, and its unique political environment. Thus, we contended that the ability of a Taiwanese MNC subsidiary in China to obtain a loan from a Chinese bank is a good proxy for its political connections.

In essence, China's communist system is based on government control of key resources and significant government involvement in the economy. Therefore, for Taiwanese MNC subsidiaries in China, a greater ability to obtain loans from Chinese banks may be indicative of stronger associations with government officials. In China, political connections play a crucial role for foreign firms, can help to cultivate trust, and can provide easier access to important local information (Chen and Chen, 1998; Peng and Luo, 2000). Political connections also enhance institutional support (Xin and Pearce, 1996), reduce overall transaction costs between organizations (Standifird and Marshall, 2000), and ultimately improve firm performance in China (Chen et al., 2013; Li et al., 2008).

As for firm performance, in general, returns on sales (ROS) or returns on assets (ROA) is usually employed by managers and economic researchers to examine corporate management effectiveness. Nevertheless, in this study, the firm-performance variable was the logarithm of organizational productivity (sales per worker) of the Taiwanese MNC subsidiary in China. This is a widely used sales-based indicator of firm performance and was used here to increase the comparability of our results to previous studies (Ding, Zhang, and Zhang, 2008; Seung, Li, and Tse, 2006). Several scholars noted that MNEs are often unwilling to present accurate financial information associated with their foreign subsidiaries (Brouthers, Brouthers, and Werner, 1999; Chiao, Yu, and Peng, 2009). Notably, in some excellent management academic papers, the authors only use a single indicator (sales per worker) to measure productivity for subsidiary performance (Gong, 2006; Li, Chen, and Yang, 2016). In addition, according to Gong (2006: 780-781), 'an overwhelming majority of subsidiaries are private firms controlled by MNCs. Subsidiaries performance data are notoriously difficult to obtain because they are confidential and parent firms are often reluctant to divulge non-consolidated data.' 'With the exception of relatively large subsidiaries, performance information is often not provided at the subsidiary level but aggregated at the MNC level. For the current study, information about sales and number of employees was available for the sample of relatively large subsidiaries. Labor productivity was measured as sales over the number of employees. The logarithm of sales per employee is a widely used measure of organizational productivity and was adopted here in analyses.' Therefore, given the high sensitivity for overseas profits of foreign subsidiaries in emerging markets (Hoskisson et al., 2000), we believe that, in this study, organizational productivity (sales per worker) is a suitable measure of firm performance.

Previous empirical evidence has shown that political connections in China have positive effects on sales by influencing resource allocation and social, economic, and political circumstances in interfirm transactions (Kao, 1993). Relationships with government officials can be used to secure property rights, enforce contracts, and increase sales by reducing transaction costs and business uncertainty in China (Park and Luo, 2001). As a result, we predict the following:

Hypothesis 1: For Taiwanese MNC subsidiaries in China, the ability to obtain CBF is positively related to organizational productivity (sales per worker).

2.5. The moderating effect of headquarter size on the relationship between CBF and subsidiary productivity

In a free market economy, firm size usually represents market dominance, business credibility, competence, and economies of scale (Haveman, 1993; Park and Luo, 2001). Scholars have suggested that in a free market economy, economies of scale decrease costs and facilitate development (Dobrev and Carroll, 2003; Haveman, 1993). Hall and Weiss (1967) found that firm size is positively associated with performance because of higher efficiencies of scale and scope. It is important to note that size is advantageous in international business, as cross-border transactions demand the knowledge, resources, and credibility ordinarily possessed by large firms (Dunning, 1980, 1988; Reuber and Fischer, 1997). Geographic expansion demands abundant resources, and shortages of resources restrict the development of small enterprises abroad (Dunning, 1980, 1988). Enterprises generally expand in domestic markets first and enter foreign markets only after they have achieved a certain age and size through realizing a high market share in their homeland (Bonaccorsi, 1992). Therefore, theory and empirical results suggest that for Taiwanese MNC subsidiaries in China, the size of the parent company is likely to strengthen the positive association between CBF and subsidiary performance in terms of productivity (sales per worker). Hence, we have the following hypothesis:

Hypothesis 2: For Taiwanese MNC subsidiaries in China, headquarters size positively moderates the relationship between obtaining CBF and subsidiary productivity. Specifically, subsidiary productivity is more positively related to the ability to obtain CBF in subsidiaries with larger headquarters.

2.6. The moderating effects of subsidiary-level organizational factors on the relationship between CBF and subsidiary productivity

Subsidiary size. In China's transition economy, the significance of firm size is likely to be different. According to historical communist standards, larger organizations are likely to be considered more legitimate and more dependable (Freeman, Carroll and Hannan, 1983; Shinkle and Kriauciunas, 2010). Government support for small Chinese firms is usually very weak, which often makes these firms subject to recurring government intervention and obstacles (Perkins, 1994). Larger firms in China usually possess greater impact and bargaining power with the government because they can create more job opportunities (Park and Luo, 2001). In fact, larger firms are apt to gain more government support because they employ more workers, and size also conforms well to the communist party's highlight on economies of scale (Park and Luo, 2001; White, 2000). It is important to note that the PRC government generally prefers to avoid the societal turmoil caused by mass layoffs (Peng and Heath, 1996). Thus, larger firms in China may be better able to secure the government support and benefits required to improve business transactions with consumers. As a result, we predict the following:

Hypothesis 3: For Taiwanese MNC subsidiaries in China, subsidiary size positively moderates the relationship between obtaining CBF and subsidiary productivity. Specifically, subsidiary productivity is more positively related to the ability to obtain CBF in larger subsidiaries.

Subsidiary age. In today's business environment, age normally reflects the experience-based competence, refined operations, ability to upgrade, dependability, and market competitiveness of a firm (Henderson, 1999). An older firm may be better able to change and adapt to new circumstances, such as those needed for cross-border business activities (Kelly and Amburgey, 1991). In China's transition economy, age is indicative of the extent to which institutional ties can increase a firm's ability to obtain institutional support for its development. Firm age is an important determinant of ties in developed economies; however, the significance of these institutional ties is greater in transition economies because of the previously controlled economic systems and the ongoing administrative involvement in these societies (Hoskisson, Eden, Lau, and Wright, 2000; Peng and Heath, 1996). Older firms in China often possess greater legitimacy because of the length of their relationships and their familiarity with members of the government. Scholars have suggested that older companies in China are generally regarded as more dependable and that dependability is likely to increase with age (Henderson, 1999; Hoskisson et al., 2000). In addition, in China, ties with institutions can offer access to key resources, ease the difficulty of obtaining permits, reduce taxes, and alleviate regulations. In contrast, younger organizations in China typically lack government aid because of the liability of newness, and their connections with main players are usually weaker (Park and Luo, 2001). We therefore predict the following:

Hypothesis 4: For Taiwanese MNC subsidiaries in China, subsidiary age positively moderates the relationship between obtaining CBF and subsidiary productivity. Specifically, subsidiary productivity is more positively related to the ability to obtain CBF in older subsidiaries.

Subsidiary technological capabilities. The resource-based view states that a sustainable competitive edge mostly originates from superior, scarce, and inimitable resources that enterprises develop for a period of time (Barney, 1991). Technological capabilities are especially important resources for business growth in FDI. It is generally agreed that technological capabilities play a critical role in organizational competence (Prahalad and Hamel, 1990). They may result in the development of innovative products and processes and confer a greater ability to adjust to changing market dynamics. Therefore, it is worth taking a contingent perspective to analyze the moderating effect of technological capabilities on the link between financing from local banks and firm performance for MNC subsidiaries in host countries. In previous work on international business, technological capabilities embodied in the intensity of research and development (R&D) have been substantially associated with the performance of MNCs. MNCs with greater R&D are ordinarily able to achieve better firm performance because the internalization of proprietary resources in foreign nations markedly decreases transaction-related costs and risks (Casson, 1985; Hennart, 2009). In an emerging economy (such as China), greater technological capabilities can put foreign subsidiaries in a better position to bargain with the host government, whose principal aim is rapid economic growth (Jean, Tan, and Sinkovics, 2011). Based on these theoretical arguments and prior empirical findings, we predict that the positive relationship between financing from local Chinese banks and subsidiary productivity is stronger for subsidiaries with greater technological capabilities. This leads to the following hypothesis:

Hypothesis 5: For Taiwanese MNC subsidiaries in China, technological capabilities positively moderate the relationship between obtaining CBF and subsidiary productivity. Specifically, subsidiary productivity is more positively related to the ability to obtain CBF in subsidiaries with greater technological capabilities.

3. Data and methodology

3.1. Sample

An empirical research of this topic indicates a number of data collection challenges. It demands as broad a sample as possible and in the meantime demands that each data point offer reliable, comprehensive information on its FDI operations, strategies and firm performance in China. Therefore, in this study, the population was drawn from a Taiwan government file containing Taiwanese FDI projects in China approved by Taiwan government. The government project has been initiated and sponsored by the Investment Commission, the Ministry of Economic Affairs (MOEA), and the Taiwanese Executive Yuan. Companies were included in the government project if they had investment capital in China, over $1 million US dollars. This criterion yielded 2,721 companies representing all major industries. After we examine the original dataset and exclude all the samples with missing values, 191 valid final samples from the government project were obtained, which form the basis of the following statistical models. Additionally, in the year of 2017, this study gathered more data, including the annual report, web site information, industry analysis, and specialized periodical of each company and its Chinese subsidiaries.

We focused on Taiwanese MNC subsidiaries in China as the empirical context. We selected China as the host country because it is the largest emerging economy in the world and has been the recipient of huge amounts of FDI from various countries over the past several decades. As discussed previously, the governments of emerging economies (China, etc.) tend to play a decisive role in directing key resources and are inclined to favor SOEs and private enterprises that possess closer ties with the state when allocating bank loans. Furthermore, Taiwan was chosen as the home country for two reasons. First, people in China and Taiwan share a common language, culture, and heritage, and social networking ties are especially important in their business activities. Second, compared to Western and Japanese MNCs, Taiwanese MNCs generally possess weaker firm-specific capabilities, such as marketing skills and technological abilities, and consequently it is difficult for them to compete abroad on their firm-specific capabilities alone. Chen and Chen (1998) suggested that business network linkages and social relationships are the main motivations behind Taiwanese MNCs' investment in foreign countries. Thus, studying Taiwanese FDI in China illuminates how weaker MNCs enhance their competitive advantages through political connections in emerging economies.

3.2. Measures

Explanatory variables. The key explanatory variable was the ability of the Taiwanese MNC subsidiary in China to obtain CBF. In Zhou's (2009: 791) paper, the author used "three variables to indicate bank financing obstacles. Self-reported degree of difficulty to obtain bank loans is an ordinal variable ranging from 1 to 5, with 1 meaning 'very easy,' 2 'easy,' 3 'sometimes difficult but sometimes easy,' 4 'difficult,' and 5 'very difficult.' This variable may have perception biases because it is based on self-reporting by the entrepreneurs. So, two objective measures are also used. Working capital primarily relying on bank loans and investment capital primarily relying on bank loans are two binary variables, which are coded 1 if the firm relied on bank loans as the most important source for working capital or investment capital, but 0 if it relied on its own savings or informal financial sources or other sources. Relying on bank loans as primary source of financing may suggest that the firm had fewer bank financing obstacles." However, the self-reporting measure is not suitable in my study context, because "this variable may have perception biases because it is based on self-reporting by the entrepreneurs." Moreover, for Taiwanese MNC subsidiaries in China, the vast majority of their investment capital comes from Taiwan. Noticeably, in this study, instead of using a binary variable (0, 1), we choose to use an objective variable, the ratio of CBF to total working capital, to gauge this indicator. Therefore, the ratio of CBF to total working capital is a good measure for how much access to bank financing in China.

We used the number of employees to measure the size of a firm. Headquarters (subsidiary) size was represented in logarithmic form by the total number of headquarters (subsidiary) employees so that the distribution of the data would more closely approximate a normal distribution and the findings would be easier to explain (Tseng, Tansuhaj, Hallagan, and McCullough, 2007). Subsidiary age was defined as the number of years the subsidiary had been in existence in China (Shinkle and Kriauciunas, 2010). Finally, subsidiary technological capabilities was computed as R&D expenditures as a percentage of the total annual sales of the subsidiary.

Control variables. In our statistical models, we controlled for a number of important variables that might affect firm performance in China. Ownership type was a dummy variable, with a wholly owned subsidiary designated 0 and a joint venture designated 1. The electronics industry and the chemicals industry are the two most strategic components of investments by the Taiwanese manufacturing sector in China (Liu and Chen, 2012). Thus, we controlled for industry effects using two dummy variables (electronics industry and chemicals industry) for the industry of the subsidiary. In addition, we controlled for the tendency of the Taiwanese MNC to invest in China (Jean et al., 2011), which mirrors managers' decision to do business in China and therefore could be associated with performance. We measured the MNC's tendency to invest in China by dividing its Chinese investments by its total number of investments. Finally, we constructed a location dummy variable that was coded 1 if the subsidiary made investments in the coastal provinces (e.g., Guangdong, Fujian, Jiangsu, Zhejiang and Shandong) and 0 if it made investments in the inland areas (e.g., Hubei, Hunan, Sichuan, Hebei, Henan, and the northeast).

4. Empirical results

Table 1 presents means, standard deviations, and correlations between variables in the statistical models. There were few correlations between variables; therefore, we were able to examine the variables in all models. In addition, we assessed multicollinearity by investigating the variance inflation factors (VIFs) of all independent and control variables. The VIFs for all model variables (1.059–1.471) were acceptable, which suggested that there were no problems with multicollinearity in our analyses. We used ordinary least squares (OLS) regression to test our hypotheses. Table 2 presents the results of the OLS regression. Model 1 in Table 2 includes the control variables and the key independent variable, CBF (as a percentage of total working capital). Models 2 and 3 added other independent variables, such as headquarters size, subsidiary size, subsidiary age, and subsidiary technological capabilities. Model 4 presents the results for the moderating effects tested in Hypotheses 2, 3, 4, and 5. With Hypothesis 1, we considered the effects of CBF. As shown in Models

1–3 of Table 2, the results of OLS regression indicated that CBF was significantly positively related to subsidiary-level organizational productivity. Thus, Hypothesis 1 was supported.

Table 1. Descriptive statistics and correlation matrix

	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11
1. Subsidiary productivity	10.350	1.511	--										
2. Location	0.880	0.326	-0.018	--									
3. JV	0.203	0.403	-0.001	-0.053	--								
4. Electronic	0.422	0.495	-0.119	0.055	-0.117	--							
5. Chemical	0.182	0.387	0.118	0.050	0.063	-0.373	--						
6. The tendency of investing in China (%)	53.438	34.787	-0.123	0.187	-0.153	0.233	-0.111	--					
7. The ratio of CBF to total working capital (%)	31.40	39.642	0.226	0.052	0.083	-0.152	0.160	-0.026	--				
8.Headquarters size	5.762	1.731	0.257	-0.062	0.086	0.036	0.157	-0.240	0.241	--			
9. Subsidiary size	6.709	1.753	0.114	-0.086	0.027	0.070	-0.137	0.013	0.292	0.344	--		
10. Subsidiary age	5.635	3.817	0.033	0.003	0.150	-0.112	0.042	0.033	0.279	-0.048	0.333	--	
11. Subsidiary R&D intensity (%)	0.828	1.801	-0.025	-0.044	0.099	0.017	0.008	0.021	-0.066	-0.176	-0.115	0.031	--

Note: N=191

Table 2. OLS Regression analysis results of subsidiary productivity in China

Variables	Model 1 Coefficient	Model 2 Coefficient	Model 3 Coefficient	Model 4 Coefficient
Location	-0.012	-0.002	0.000	-0.002
JV	-0.044	-0.053	-0.056	-0.051
Electronic industry	-0.043	-0.087	-0.089	-0.107
Chemical industry	0.058	0.022	0.022	-0.063
The tendency of investing in China	-0.105	-0.053	-0.054	-0.031
The ratio of CBF to total working capital (H1)	0.212***	0.162**	0.162**	-0.144
Headquarter size		0.209***	0.211**	0.052
Subsidiary size			0.011	0.022
Subsidiary age			-0.007	0.009
Subsidiary R&D intensity			0.032	0.040
The ratio of CBF to total working capital * Headquarters size (H2)				0.647**
The ratio of CBF to total working capital * Subsidiary size (H3)				-0.235
The ratio of CBF to total working capital * Subsidiary age (H4)				-0.018
The ratio of CBF to total working capital * Subsidiary R&D intensity (H5)				-0.009
R^2	0.073	0.110	0.111	0.135

Notes: (1) N=191, (2) *p < 0.1, ** p ≤ 0.05,*** p ≤ 0.01

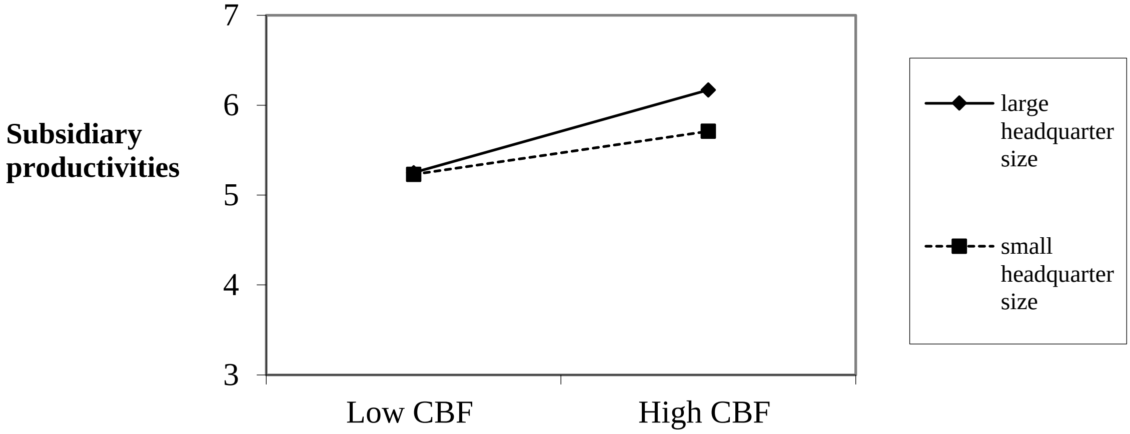

Figure 2. Moderating Effect of Headquarters Size on the CBF—Subsidiary Productivities Relationship

Models 2 and 3 in Table 2 show that headquarters size was significantly positively associated with subsidiary productivity. Hypothesis 2 also argued that the predicted positive effect of CBF on subsidiary productivity would be positively moderated by headquarters size, such that subsidiary productivity would be more positively related to the ability to obtain CBF in subsidiaries with larger headquarters. We tested this prediction by including the interaction term for CBF and headquarters size in the model estimation. Model 4 of Table 2 shows that the interaction between CBF and headquarters size was positive and significant in the OLS regression ($p \leq 0.05$), providing support for Hypothesis 2 (Figure 2). Adding the interaction term (Model 4) to test Hypothesis 3 produced a coefficient for the interaction of CBF and subsidiary size that was negative but not statistically significant. Thus, Hypothesis 3, which suggested that subsidiary size positively moderates the link between CBF and subsidiary productivity, was not supported. Furthermore, as shown in Model 4, the interaction of CBF and subsidiary age was negative but nonsignificant, and the interaction of CBF and subsidiary technological capabilities was also negative and nonsignificant. Therefore, Hypotheses 4 and 5 were not supported. Overall, the results indicated that subsidiary-level organizational factors, including subsidiary size, subsidiary age, and subsidiary technological capabilities, did not have positive moderating effects on the association between CBF and subsidiary productivity.

5. Discussion

In this study, we considered the ability to obtain CBF a suitable indicator of the extent of political connections a foreign subsidiary in China has with the PRC government. The results supported our prediction in Hypothesis 1: CBF was positively related to subsidiary productivity (sales per worker). In other words, our findings demonstrate that political connections can benefit foreign subsidiaries in terms of increasing sales in China. Political connections can create a balance in the burdensome Chinese bureaucracy via complementing equivocal bureaucratic regulations with governmental ties. As stated previously (Li et al., 2009; Park and Luo, 2001), political connections are a powerful mechanism to position an enterprise externally in the emerging economy context. Foreign subsidiaries are able to circumvent bureaucratic obstacles by organizational relationships in China. In general, political connections are crucial for establishing external associations and legitimacy and for positioning a foreign subsidiary competitively in China’s environment. In an emerging economy (such as China) with ambiguous property right protections and a weak legal system, it stands to reason that political connections can offer the opportunity to increase market sales through superior competitive positioning and other forms of collaboration with suppliers and government officials.

We predicted in Hypothesis 2 that headquarters size would positively moderate the association between CBF and subsidiary productivity. Our findings strongly supported this prediction, indicating that for Taiwanese MNC subsidiaries operating in China, subsidiary productivity was more positively related to the ability to access CBF in subsidiaries with larger headquarters. Firm size is a critical element of the behaviors and decisions of a firm (Shinkle and Kriauciunas, 2010). It has also been studied as a crucial factor in economies of scale, business reputation, and market influence, because larger firms usually have more favorable access to capital, high-level technologies, and general slack, which provides them with more key resources to support outward FDI (Xin and Pearce, 1996). It is important to note that size affects a firm's ability to deal with the task environment. As discussed previously, there is a positive connection between large size and international business expansion (Dobrev and Carroll, 2003; Dunning, 1980). Because they have more plentiful resources and a superior market position, larger MNCs often have more bargaining power with their business partners and therefore are more likely to negotiate deals to their advantage in international markets. Conversely, smaller MNCs are more liable to be influenced by fluctuations in external circumstances (Beck, Demirguc-Kunt, and Maksimovic, 2005). For MNCs entering a foreign country, size can positively affect firm performance because of the institutions in place. In China, the government maintains administrative involvement in business operations (Hoskisson et al., 2000). In line with China's economic reforms, main aims of the PRC government are to grow revenue and to support business development in larger firms (Park and Luo, 2001). Furthermore, in accordance with the norms of the old planned economy, larger firms are perceived as more lawful and more trustworthy in China (Freeman et al., 1983). Thus, we believe that small MNCs entering China do not garner much government support because of their weak business power. Hence, for MNC subsidiaries operating in China, it is possible that the size of the parent company strengthens the positive link between CBF and subsidiary productivity.

It is striking that none of the subsidiary-level organizational factors we examined, including subsidiary size, subsidiary age, or subsidiary technological capabilities, had significant moderating effects on the association between CBF and subsidiary productivity. This is consistent with previous research in the strategy literature (Peng and Heath, 1996) that contended that MNCs build connections with government authorities in China to overcome subsidiary-level organizational disadvantages. In addition, the PRC government typically dominates administrative control over all areas in China. As a result, foreign subsidiaries in China require government support to secure favors in terms of institutional relations and to achieve business growth. Lien (2010) stated that MNCs investing in China need to create and maintain good connections with government authorities regardless of their subsidiary-level organizational attributes. Our findings support the notion that subsidiary-level organizational factors do not play a pivotal role in moderating the link between CBF and subsidiary productivity in MNCs in China.

6. Limitations and directions for future research

Our results should be considered in light of several limitations to this study. First, existing research focuses on the strategic choice of foreign subsidiaries of MNCs to invest in China (Pan and Chi, 1999). MNCs in China can focus on either exporting their subsidiary products to overseas markets (export focus) or seizing huge business opportunities in the local Chinese market (local market focus). We have argued that the ability to obtain CBF may depend remarkably on a subsidiary's market focus. In other words, MNCs' use of political connections could hinge substantially on their subsidiaries' strategic choices in China. Therefore, it might be fruitful for future researchers to examine CBF from the perspective of a market focus, in particular a local market focus in China. Second, an important element of all research is generalizability. In this study, we examined Taiwanese MNCs, and thus our results may not generalize to MNCs from other nations. Moreover, these analyses may not entirely represent MNCs in China; however, their dynamism provides a foundation on which to better understand MNCs' operations in China. Finally, we acknowledge that for MNCs this is an era of diversifying supply chain risks. China is undoubtedly the leading emerging economy in the world. Nevertheless, future research could be enhanced by increasing the variance in different institutional frameworks through including a larger sample of different emerging economies (especially Southeast Asian countries).

7. Conclusion

Because of intensifying competition in the global business environment, MNC subsidiaries are increasingly engaging with and using various networks and relationships to improve firm performance in host countries. Especially in an emerging market such as China, establishing government networks and connections is key factor in success. This paper offers strong theoretical and empirical evidence for the moderating roles of headquarters and subsidiary-level organizational factors in the link between CBF and subsidiary productivity. It makes essential contributions to the theory and management of MNC subsidiaries' strategic business operations in emerging markets and functions as a catalyst for future studies.

Disclosure statement

No potential conflict of interest was reported by the author.

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