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Entrepreneurial founder's social ties, institutions, and firm's productivity: Evidences from China's newly listed firms

Da Teng[a,*], Bin Hao[b], Xiangdong Sun[a], Ziming Cai[c], Jing Chen[c]

[a] School of Economics and Management, Beijing University of Chemical Technology, East Road, North Third Ring Road, Beijing, China
[b] School of Business, East China University of Science and Technology, 130 Meilong Road, Shanghai 200237, China
[c] Nottingham University Business School, Jubilee Campus, Wollaton Road, Nottingham NG8 1BB, United Kingdom

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ABSTRACT

Social ties, as informal institutions, contribute to firms' performance in emerging economies. Formal market-supporting institutions in emerging economies are in general less developed, social ties cultivated by entrepreneurs thus serve as substitutes for formal institutional support. However, the role of social ties as informal institutions and interactions between social ties and market-supporting institutions are yet to be fully explored. Using the sample of 428 newly listed firms on the Growth Enterprise Market of Shenzhen Stock Exchange of China between 2009 and 2016, this paper examines the interplays among the entrepreneurial founder's political ties and managerial ties, marketization, and firm's productivity, measured by firm-level total factor productivity. Our findings indicate that the entrepreneurial founder's managerial ties enhance firm productivity whilst political ties reduce productivity. We also find that marketization positively moderates the effects of the entrepreneurial founder's political and managerial ties on productivity. Our findings demonstrate the strategic importance of the informal institutions and contribute to an improved understanding of the complementary effects between social ties and marketization in an important emerging economy.

Introduction

Social ties can shape organizational actions (Granovetter, 1985). Extant studies have viewed social ties as one type of informal institution and examined the effects of social ties on a firm's strategic choices and performance (Haveman et al., 2017; Li & Zhang, 2007; Peng & Luo, 2000; Sun et al., 2015). Social ties are of special significance in emerging economies where the functioning of formal institutions is not well-enforced. Peng, Wang, and Jiang (2008) propose the institution-based view to explore the relationship between emerging economies' institutional frameworks and firms' strategic outcomes and address the substitute effects between formal and informal institutions in shaping strategic choices. In specific, indistinct or absent formal institutional boundaries in emerging economies create institutional voids (Khanna & Palepu, 1997), in which firms normally rely on informal institutions (Puffer, McCarthy, & Boisot, 2010), such as social ties (Li & Zhang, 2007; Peng & Luo, 2000; Sun et al., 2015) to survive and compete.

Formal institutions in emerging economies are under development (Peng, 2003; Wright et al., 2005; Meyer & Peng, 2016). China, as the largest emerging economy, is gradually marketizing its economy and maturing its legal frameworks. The role of social ties, as informal institutions, within the evolving formal institutional environment, can be debated conceptually and needs to be empirically explored. This paper aims to examine the role of social ties among entrepreneurial founders in determining the productivity and financial performance of newly listed firms in China. It seeks to answer the question: How do social ties among founders interact with formal institutions in influencing firms' performance? We propose a contingency approach to understanding the relationships between social ties and productivity by considering institutional contexts.

Productivity refers to the efficiency in production and is one of the primary concerns for any business as it reflects a firm's capability to achieve cost advantages over competitors (Porter, 1980). Previous literature has shown that productivity growth is a suitable performance measure for entrepreneurial firms operating in high-tech industries (Guo & Jiang, 2013). This line of research, however, primarily focused

* Corresponding author.
E-mail addresses: da.teng@mail.buct.edu.cn (D. Teng), binhao@ecust.edu.cn (B. Hao), sunxiangdong@mail.buct.edu.cn (X. Sun), ziming.cai@nottingham.ac.uk (Z. Cai), jing.chen@nottingham.ac.uk (J. Chen).

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on the effects of chief executive officers' social ties among well-established firms (Qian, Cao, & Takeuchi, 2013; Talke, Salomo, & Rost, 2010; Sheng, Zhou, & Li, 2011; Zhang, Wang, & Han, 2019; Zhou, Wu, & Li, 2019), but generally neglected the role of the founder in shaping newly listed firms' productivity.

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Compared to top executives in established firms whose managerial behavior is constrained by the organizational culture and complexity of the firm (Finkelstein & Hambrick, 1990), entrepreneurial founders have greater discretion in shaping the outcomes of their firms (Meier & Schier, 2022; Nelson, 2003; Schuster, Nicolai, & Covin, 2020). Social ties of entrepreneurs are essential to newly listed firms because these firms rely on the founders' social connections to gain access to valuable resources during the early stages of development (Honjo & Kato, 2022; Stam, Arzlanian, & Elfring, 2014; Teng, Li, & Tanna, 2022). Although extensive literature has highlighted the importance of founders in shaping a firm's strategy and performance (Chahine, Filatotchev, & Zahra, 2011; Collewaert, Vanacker, Anseel, & Bourgois, et al., 2021; Dawson, Paeglis, & Basu, 2018; Fattoum-Guedri, Delmar, & Wright, 2018; Hendricks, Howell, & Bingham, 2019; Wasserman, 2017), our understanding of how different social ties of founders affect the productivity of newly listed firms in emerging economies remains limited. This paper distinguishes between entrepreneurial founders' managerial ties and political ties and examines how these ties might have different impacts on the productivity of newly listed firms. Furthermore, it disentangles how formal market-supporting institutions moderate such relationships.

This paper makes two important contributions. First, this paper articulates the important role of the social ties in influencing the productivity of newly listed firms by differentiating between the entrepreneurial founder's managerial ties and political ties. By investigating the effects of the entrepreneurial founder's social ties on the firm's productivity, we demonstrate the unique role of the founder in shaping the outcomes of the firm in emerging economies. In particular, we show that the productivity of newly listed firms benefits more from the entrepreneurial founder's managerial ties than their political ties.

Second, this study addresses the interplay between the entrepreneurial founder's social ties and formal institutions and offers a comprehensive evaluation of a firm's productivity within the contextual environment of an emerging economy. Previous studies have assessed the interactions between institutions and firms' outcomes, and it has been observed that informal institutions (e.g., social ties, norms, and culture) play a larger role when formal institutions are weak or even absent. Leveraging an institution-based view, we investigate how formal institutions interact with the entrepreneurial founder's social ties to influence a firm's productivity in China.

Theoretical background and hypotheses

Social ties demonstrate an actor's ability to acquire benefits through a network of social relationships. According to social network theory (Burt, 1997), social ties exist beyond formal organizational structures and legislation, encompassing intellectual and financial resources that can be accessed through an actor's network (Nahapiet & Ghoshal, 1998; Jang, Ko, Chung, & Woo, 2019). Individuals and organizations with social ties can more effectively utilize the information and resources available within these ties to accomplish their objectives, in contrast to those without such social ties (Adler & Kwon, 2002; Luu & Ngo, 2019). Therefore, social ties can be regarded as a "private good" that provides actors with information, control, and influence (Kostova & Roth, 2003; Yates, Vardaman, & Chrisman, 2023). Researchers increasingly recognize the significance of social ties and consider them as informal institutions that help firms surpass institutional constraints in emerging economies (Bamford, Bruton, & Hinson, 2006; Florin, Lubatkin, & Schulze, 2003; Li, Poppo, & Zhou, 2008; Li et al., 2012; Li et al., 2014; Mani & Durand, 2019; Sheng et al., 2011).

Institution-based view emphasizes the interplay between formal and informal institutions and suggests that firms' strategic choices and performances are the outcomes of the interactions between institutions and firms (Peng et al., 2008; Peng et al., 2023). Institutions determine directly how a firm formulates and implements its strategy (Peng & Heath, 1996) because both formal and informal institutions can control and constrain a firm's behavior (Patnaik, Munjal, Varma, & Sinha, 2022). The key proposition of the institution-based view addresses the substitute effects between formal and informal institutions in shaping strategic choices and suggests that in situations whereby formal institutions are weak, informal institutions rise to play a larger role in driving firm strategies and performance (Peng et al., 2008). In this sense, the institution-based view considers social ties as an adaptive ability to cope with the institutional voids by leveraging informal institutions (Balon, Kottala, & Reddy, 2022). The past decades have witnessed the rapid development of market-supporting institutions in emerging economies (Meyer & Peng, 2016; Peng et al., 2017). It is therefore important to understand the contingency effects of the informal institutions on firms' outcomes by exploring the role of the formal institutions.

Founder's social ties and firm's productivity

A firm has been described as "a system of relationships which comes into existence when the direction of resources is dependent on an entrepreneur (founder)" (Coase 1937, p.393). From this perspective, a founder plays the most important role in conceptualizing a firm's initial structure and strategic direction (Dawson, Paeglis, & Basu, 2018; Hoang & Gimeno 2010; Lee & Tsang, 2001; Schuster et al., 2020). At the start-up stage, the founder creates the firm with his/her entrepreneurial idea, and usually leads to organizational development and product launch (Rubenson & Gupta, 1996; Wang & Song, 2016; Zheng & Mai, 2013).

Many researchers advocate the role of the founder and argue that the founder is a valuable and persistent contribution to the firm, particularly under the dynamic environment of emerging economies. The persistent effects of the founder can be attributed to two factors. First, the founder structures the firms and fosters the organizational culture in ways that are consistent with their experience, background, and value (Hambrick & Mason, 1984). The organizational structure and culture lay the foundation of organizational value and determine the organizational strategic orientation (Schuster et al., 2020). Once formulated and articulated, organizational value and culture are likely to be locked and the firm's decision-making and performance are a reflection of the founder's organizational blueprint (Baron, Hannan, & Burton, 1999). Given the important implication of organizational structure, culture, and strategic choices for a firm's growth and development, researchers have asserted that founders would have a long-term effect on the firm's performance (Lee, Yoon, & Boivie, 2020).

Furthermore, the hierarchical authority is another important legislative reason which empowers the founder with long-term influence over the firm's performance (Finkelstein, 1992). A founder usually serves as the chief executive of an entrepreneurial firm and is likely to retain a top executive position after the IPO (Teng et al., 2022). Hence, a founder has power over many other members of the top management team because of their position. Furthermore, the founder often retains sufficient ownership after the IPO and sits on the board to maintain control over the firm. As such, we propose that the founder would have a persistent influence over the firm's outcome even after the IPO.

In this paper, we distinguish the founder's managerial ties with political ties (Li & Zhang, 2007; Peng & Luo, 2000; Sun et al., 2015) and argue that political ties have negative impacts on productivity while managerial ties enhance newly listed firm's productivity. Political ties of the founder may weaken productivity. First, the political ties may disrupt productivity by diverting the firm's attention and efforts away from improving efficiency. In emerging economies, the government controls significant portions of strategic resources and has considerable power to influence allocation channels (Bruton et al. 2015). Strong political ties spoil the founder and the firm with scarce resources such as land, financial capital, and information about industrial planning or relevant policies changes (Li et al., 2008; Luo, Xue, & Han, 2010; Teng & Yi, 2017), which helps to generate more profitable opportunities compared to firms with weak political ties (Li et al., 2014).

Entrepreneurial literature has long indicated an entrepreneur's opportunity-driven nature (Shane & Venkataraman, 2001) and stressed the entrepreneur's proactivity in discovering, evaluating, and exploiting opportunities (Baptista, Karaoz, & Mendonca, 2014; Sarason, Dillard, & Dean, 2010). It is reasonable to expect the founder would exploit political ties and explore new business opportunities, rather than endeavoring to enhance the firm's productivity (Faccio, 2010). Furthermore, political ties may incur costs as well. Political ties can generate significant costs imposed by government interference (Fan et al., 2007; Sun et al., 2010). The government may inflict its own political or socio-economic goals on firms through social ties and promotes strategies optimal from the government's point of view, but suboptimal to the firm's performance (Okhmatovskiy, 2010). Building and maintaining such ties also induce substantial costs, and resources received from these ties always carry some complexity (Chen, Chen, & Huang, 2013), which may constrain the founder's concentration on performance improvement. Therefore, we argue that the founder with stronger political ties is less likely to improve productivity due to the availability of business opportunities and costs associated with maintaining the network.

By contrast, a founder's managerial ties may enhance productivity. Productivity enhancement can be achieved through product and process innovation (Gao et al., 2017). Innovation is the process of the novel conversion of information and knowledge into new products, services, and production processes (Molina-Morales & Martinez-Fernandez, 2010). Innovation thus requires the firm to gather information on disparate ideas and knowledge from which the novel conversion can be processed (Gronum, Verreynne, & Kastelle, 2012). One important function of managerial ties is to gain external information, knowledge, and resources (Mosakowski, 2002). Managerial ties facilitate access to broader sources of information and improve information's quality, relevance, and timeliness (Teng et al., 2022). Managerial ties thus enable the founder to identify new business opportunities, obtain resources below the market price, and secure quality information from external stakeholders.

In emerging economies, such as China, the undeveloped market creates an uncertain environment with information asymmetry among market actors (Meyer & Peng, 2016). Information extracted from the social network may be richer and more useful than information gained by other means (Li & Zhang, 2007). For founders who often take risks in their entrepreneurial process, information and knowledge gained from managerial ties can be especially helpful in developing new conceptions that can increase the valuation of their firms. Managerial ties, therefore, serve as the information conduits that shape the founder's views of the environment and contribute to business opportunity identification (Gedajlovic et al. 2013), which in turn, enhance productivity.

Hypothesis 1a. There is a negative relationship between founders' political ties with firms' productivity.

Hypothesis 1b. There is a positive relationship between founder's managerial ties with firms' productivity.

Contingent effects of the formal institutions

The prior sections discussed the direct link between the founder's social ties and the firm's productivity. Existing studies have highlighted the importance of institutional contingencies; we then explore the moderating effects of formal institutions on founder's social ties and productivity. Institutions, which are defined as "the rules of the game" (North, 1990), have been proved to exhibit formal and informal pressures on firms, and directly affect firms' strategic choices and performance. The institution-based view focuses on the interactions between institutions and firms and exerts the firm's strategic choices and performances are the outcomes of such interactions (Peng et al., 2008). In other words, institutions determine how firms formulate and implement strategy because institutions have the capacity to control and constrain managerial behavior. Furthermore, Scott (1995) argues that institutions not only impose restrictions by defining legal, normal, and cultural boundaries but also support and empower activities and actors. Empirical evidence suggests a contingency approach to understanding firms' performance based on firms' external institutional contexts (Boehe, Qian, & Peng, 2016; Li & Sheng, 2011). It is therefore essential to recognize that institutions provide resources and incentives for taking specific actions.

In emerging economies, formal institutions, such as legal framework and marketization, are gradually changing and have improved over the last two decades (Meyer & Peng, 2016). It is therefore important to understand the interplay between informal institutions and informal institutions and explore the contingency effects of marketization, as formal institutions, on the relationship between founders' social ties and productivity. We argue that the development of marketization, as formal institutions, generates positive effects on the relationship between the founder's social ties (i.e., political and managerial ties) and productivity by enhancing the firm's innovation efficiency and facilitating innovation outcomes' commercialization.

Marketization first fosters a strong market-supporting system, which reduces the transition costs and enhances transformative efficiency. Through generating well-functioning market mechanisms such as capital markets and labor markets, marketization facilitates the flows of production factors and induces technology and human resources reallocation to these more competitive firms (Meyer et al., 2009). This will enhance the founder's motivation to leverage managerial ties to gather technological information, and attract talented individuals, which, in turn, improve productivity. Moreover, marketization reduces the founder's reliance on political ties to gain access to key resources that can be directly transformed into financial returns. This will lower the motivation of founders to conduct rent-seeking activities and encourage them to pursue interests via market-related behaviors such as innovation and efficiency improvements. Consequently, founders in regions with higher levels of marketization are more likely to apply information and knowledge acquired via political ties to the development of new products or the improvement of existing ones. Similarly, a high level of marketization will also promote founders to leverage managerial ties by integrating knowledge acquired into their innovation processes, because marketization increases the opportunity that innovative products will be rewarded.

The development of a well-functioning market also accelerates the commercialization of the innovation output (Liu & White, 2001). Under institutional environments where the level of marketization is high, the output of innovation can be more easily merchandised. If founders come from a region with higher levels of marketization, they are more likely to obtain knowledge about the commercialization of their innovation and benefit from such a process and thus, are more likely to pursue technological innovation. In this sense, both political ties and managerial ties can help access information needed for developing their efficiency. In other words, a higher-level marketization will witness a more positive relationship between the founder's social ties and productivity. Hence, we hypothesize:

H2: In an emerging economy, marketization has positive moderating effects on the relationship between founder's social ties (i.e., political ties and managerial ties) with firm's productivity.

Methodology

Data source and sample

Our sample includes 511 firms that underwent an initial public offering (IPO) on the 'Growth Enterprise Market' (GEM) on the Shenzhen Stock Exchange in China between 2009 and 2016. GEM is a secondary market of the Shenzhen Stock exchange and was launched in 2009. Most of the firms listed on the GEM are small and medium-sized enterprises. Following previous studies (e.g., Daily et al., 2003; Yang, Zimmerman, & Jiang, 2011), we manually collected founder-related information from these firms' IPO prospectus. The IPO prospectus is part of the legal requirements for the public listing, which contains detailed information about the founder or founding team along with other important information about the firm's history, business, revenue, etc. The firm's financial performance data and institutional factors covering the period 2009-2016 were collected from the China Stock Market and Accounting Research (CSMAR) database and the China Statistical Yearbook.

To construct our unique dataset about the founder(s), we followed a multiple-stage procedure. The key was to distinguish a firm with the founder(s) from those firms without the founding team. Some firms were originally established by governments or reformed from state-owned firms. In some other cases, the founders had either retired or resigned. The selection process was based on three criteria: (1) the existence of a founder in the history section of the prospectus, (2) the founder holds a position on the board after the IPO, and (3) the founder holds a share ownership after IPO flotation. We triangulated the information from the IPO prospectus with each company's website and other published news to ensure that the founder's information was accurate. Firms without founding teams were eliminated from the sample. This process left us with 428 firms, out of the initial 511, with the identified founder(s).

Dependent variable. The dependent variable in this study is firm-level total factor production (TFP). TFP is defined as a measure of the efficiency with which factor inputs are combined to produce output (Liu & Wang, 2003). We calculate the TFP value using the Levinsohn and Petrin (2003) (LP) method. Traditionally, OLS estimation is applied to calculate the TFP. However, the estimation of TFP by OLS suffers from simultaneity or endogeneity bias because of the correlation between input and output amount. Although the bias can be overcome by estimations using fixed effects, instrumental variables, or Generalised Method of Moments (GMM), these estimations have generally poor performances (Van Beveren, 2012). Therefore, we use the LP method which addresses the simultaneity/ endogeneity bias properly.

Independent variables. We distinguish the founder's managerial ties from political ties (Li & Zhang, 2007; Luu & Ngo 2019; Sun et al., 2015). The founder's managerial ties were measured by the sum of executive positions and board memberships held by the founder outside the focal firm (Filatotchev, 2006). In the case of multiple founders, we take the sum of these positions. Following prior studies (Li et al., 2008; Okhmatovskiy, 2010; Zheng, Singh, & Mitchell, 2015), political ties were measured using a dummy variable, coded as 1 if the founder has political connections - was a member of the National People's Congress or the member of Chinese People's Political Consultative Conference, or worked in the local or central government department or military department, and 0 otherwise.

Moderating variable. We emphasize the importance of formal institutions for measuring external environments. We measure the level of marketization in each of China's provinces using annual data by addressing the relationship between the government and the market (Wang, Fan, & Hu, 2018). There are three dimensions to capture the level of marketization: 1) the level of government intervention in the business; 2) the development of factor markets (i.e., the level of government allocation of resources); 3) the scale of government.

Control variables. We included several control variables. Larger firms are associated with economies of scale and equipped with more resources for improving operational efficiency, which leads to superior firm-level productivity. We measure firm size using the natural logarithm of total assets. Older firms accumulate more knowledge and capabilities as they evolve, which in turn influence firm-level productivity. We control firm age, measured by the number of years since the firm is founded. Sufficient financial resources can ensure the stability of the operation and contribute to performance improvement (Paeleman & Vanacker, 2015). The current ratio is thus adopted to capture the resource endowment and is measured as the current assets divided by current liabilities. Finally, additional dummies are included to take account of the idiosyncrasies associated with the industry and time variations. Two-digit industry dummies are included to control for additional industry-specific idiosyncrasies that may have an impact on variations in firms' productivity. Year dummies are also included to capture time effects associated with time-varying factors.

Results

Table 1 provides the summary statistics of the variables, indicating that most of the observations in the sample are within reasonable limits (i.e., no outliers). Also, the pairwise correlation coefficients (not shown) show no serious issues of multicollinearity among the variables.

Table 2 shows the results for firm-level productivity from the OLS model. Model 1 presents the baseline model with control variables only. Model 2 explores the effects of the founder's social ties on productivity. Model 3-5 further examines the interaction between the founder's social ties and marketization.

Model 1 in Table 2 shows the effects of a firm's size, firm's age, and current ratio on productivity. All industrial effects and time effects had been controlled. Model 2 in Table 2 examines the role of the founder's political and managerial ties on productivity. The result of Model 2 shows that the coefficient of the founder's political ties is negative and significant (β = -0.0349, $p < 0.10$). The results of Model 3 show founder's managerial ties have a positive and significant impact on the firm-level productivity (β = 0.0057, $p < 0.01$). Therefore, H1a and H1b are both supported.

Existing studies have suggested the important role of social networks in influencing a firm's outcomes. It is therefore necessary to further examine the interaction between the founder's social ties and formal institutions and explore how the social ties are moderated by the formal institutions. Model 3 in Table 2 further examines the moderating effects of marketization on the relationship between the founder's political ties and productivity. The result shows that the coefficient of the interaction between the founder's political ties and marketization is positive and significant (β = 0.0755, $p < 0.01$).

Model 4 tests the interaction between the founder's managerial ties and marketization and the result is positive and statistically significant (β = 0.0039, $p < 0.01$). Model 5 jointly assesses the moderating effects of the founder's social ties and shows that the coefficients

Table 1
Summary statistics

Variable	Mean	SD	1	2	3	4	5	6	7
1. TFP	0.271	0.380	1						
2. Current ratio	5.591	9.110	0.09***	1					
3. Firm size	20.400	0.856	-0.04**	0.03	1				
4. Firm age	11.650	4.398	-0.06***	0.01	-0.07***	1			
5. Political ties	0.290	0.454	0.02	0.08***	0.07***	0.29***	1		
6. Managerial ties	6.677	5.044	0.26***	0.05***	0.01	0.06***	0.21***	1	
7. Marketization	7.378	1.152	-0.01	0.01	-0.06***	0.12***	0.33***	0.13***	1

Notes: ***Statistical significance at 1% level (*p*-value < 0.01). **Statistical significance at 5% level (*p*-value < 0.05). *Statistical significance at 10% level (*p*-value < 0.1)

of both interactions are positive and significant. The results suggest that marketization, as formal institutions, strengthens the relationship between the founder's political ties/managerial ties and productivity particularly, in support of H2.

To better demonstrate the marginal effects on interaction terms, we plot the graph of predicted TFP to show the interaction effects in Figures 1 and 2. We can see the existence of moderating effects as indicated in H2

Regarding control variables, firm size and firm age have negative and significant effects whereas firm current ratio has a positive and significant effect on the TFP. Overall, our results suggest that a founder's managerial ties have a significant positive effect on productivity, and political ties have the opposite effect. We also find that marketization as formal institutions help reinforce the effects of the founder's political and managerial ties on firm-level productivity, measured by TFP.

In order to test the consistency of the results, we conduct a set of robustness tests. We first apply alternative empirical methods using FEGLS and Tobit estimations to check the robustness of the results. FEGLS estimation tackles the potential cross-section correlation problem. The results of both estimations are unchanged. We adopted alternative performance measures (i.e., Tobin's Q, return on assets) to test the effects of the founder's social ties. The results are qualitatively unchanged.

Discussion and conclusion

Because of their rapid pace of development, emerging economies are assuming an increasingly prominent position in the world economy. As such, there is an increasing amount of theoretical and empirical research that has studied the factors influencing the firm's performance, including productivity, in emerging economies. Using a sample of 428 newly listed firms, this paper aims to understand better a founder's role in influencing a firm's productivity. Adopting the institution-based view, this paper considers the founder's social ties as informal institutions and emphasizes the interplay between the founder and institutional factors as the antecedents of firms' productivity. Results of this paper indicate that entrepreneurial founder's social ties have different impacts on firm's TFP. The entrepreneurs' political ties have negatively influenced firm's productivity, while managerial ties enhance firm's productivity. The results are in line with our hypothesis and demonstrate that political connections reduce firm's motivation for efficiency improvement. By contrast, managerial ties facilitate information gathering and knowledge transfer, which helps to improve firms' productivity. The paper also finds that market-supporting institutions enhance the relationships between both types of social ties and productivity, which indicate the complementary effects between formal institutions and informal institutions.

Table 2
Results of OLS

	Productivity (TFP)				
	1	2	3	4	5
Productivity (TFP)					
Current ratio	0.0094***	0.0091***	0.0088***	0.0093***	0.0089***
	(0.0022)	(0.0021)	(0.0021)	(0.0022)	(0.0022)
Firm size (total assets)	-0.2182***	-0.2174***	-0.2167***	-0.2181***	-0.2157***
	(0.0152)	(0.0153)	(0.0152)	(0.0155)	(0.0155)
Firm age	-0.0052***	-0.0044**	-0.0036*	-0.0038*	-0.0028
	(0.0020)	(0.0022)	(0.0022)	(0.0021)	(0.0022)
Marketization		-0.0342***	-0.0526***	-0.0563***	-0.0783***
		(0.0085)	(0.0101)	(0.0125)	(0.0129)
Political ties		-0.0349*	-0.5767***		-0.5725***
		(0.0212)	(0.1132)		(0.1144)
Managerial ties		0.0057***		-0.0236**	-0.0206**
		(0.0017)		(0.0102)	(0.0098)
Political ties* marketization			0.0755***		0.0735***
			(0.0158)		(0.0159)
Managerial ties* marketization				0.0039***	0.0036***
				(0.0014)	(0.0013)
Constant	3.0795***	3.3234***	3.4501***	3.4772***	3.5880***
	(0.2979)	(0.3072)	(0.3088)	(0.3427)	(0.3412)
Time dummies	Yes	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes	Yes
N	2034	2034	2034	2034	2034
R2	0.2491	0.2535	0.2611	0.2590	0.2669

Note: Estimation is by OLS with robust standard errors. *** Statistical significance at 1% level (p value < 0.01); ** Statistical significance at 5% level (p value < 0.05); * Statistical significance at 10% level (p value < 0.1).

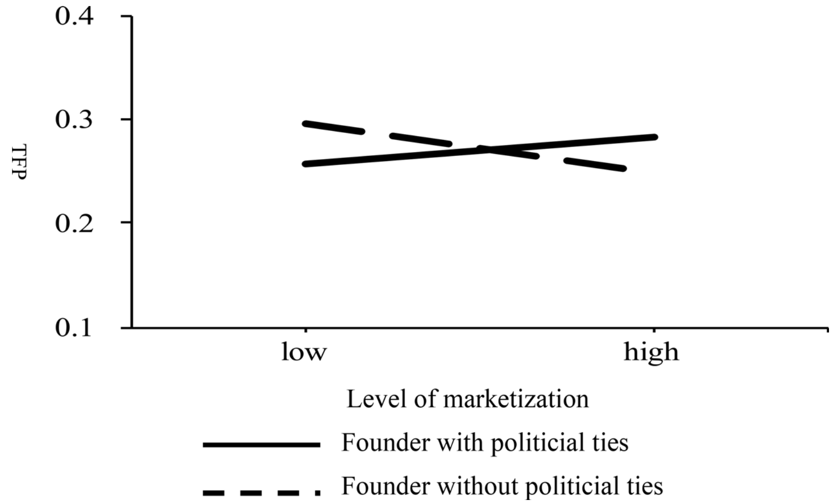

Fig. 1. The moderation effects of marketization on the relationship between the founder's political ties and firm-level productivity (TFP)

This paper's findings make important contributions to our knowledge. First, the paper reveals the strategic important role of the founder in determining newly listed firms' productivity in emerging economies. Prior studies have attributed the firm-level productivity enhancement to either external industrial factors (e.g., foreign direct investment) or the firm's internal resources/organizational factors. This paper opens an interesting avenue to extend our understanding of the premise of a firm's productivity by examining the role of the founder in China which has become the world's largest emerging economy.

Existing studies have emphasized the effects of top executives' observable characteristics on a firm's strategic orientations and performance (e.g., Filatotchev, 2006; Talke et al., 2010; Yang et al., 2011). We extend the current literature and address the firm's creator - the founder and his/her social ties on one specific type of performance (i.e., firm-level productivity). We make and substantiate the case that the founder's political ties and managerial ties have different effects on firm-level productivity in China. Political ties have long been argued for the beneficial role on a firm's performance (Li & Zhang, 2007; Li et al., 2008; Okhmatovskiy, 2010; Sheng et al., 2011). This argument considers the government as a visible hand and supports some firms with favorable policy and resource allocations through informal social ties. By contrast, our finding of a negative role of the political ties on firm-level productivity echoes the recent stream of literature, which reminds us of the potential dark side of political ties in emerging economies (Sun et al., 2010). The key benefit of political ties is to ensure the firm's access to sufficient and valuable resources (Teng et al., 2022). When a firm has abundant resources and fewer constraints, founders may feel comfortable with the status quo and are less likely to improve operational efficiency. Our findings are in line with extant studies which suggested slack resources lead to wasteful investment and production inefficiency (Paeleman & Vanacker, 2015). We also find that the founder's managerial ties contribute to productivity enhancement. Such positive impact can be attributed to effective information and knowledge transfer. Close managerial ties help the founder gain access to relevant information about technology changes that they might not otherwise have (Gao et al., 2017). Based on the information obtained from the managerial ties, founders and focal firms can better understand current technology development and market changes and adopt new technical tools to improve productivity.

Second, we offer a contingent view of the effects of formal institutions to understand the founder's social ties and find complementary effects of the formal institutions on informal institutions in

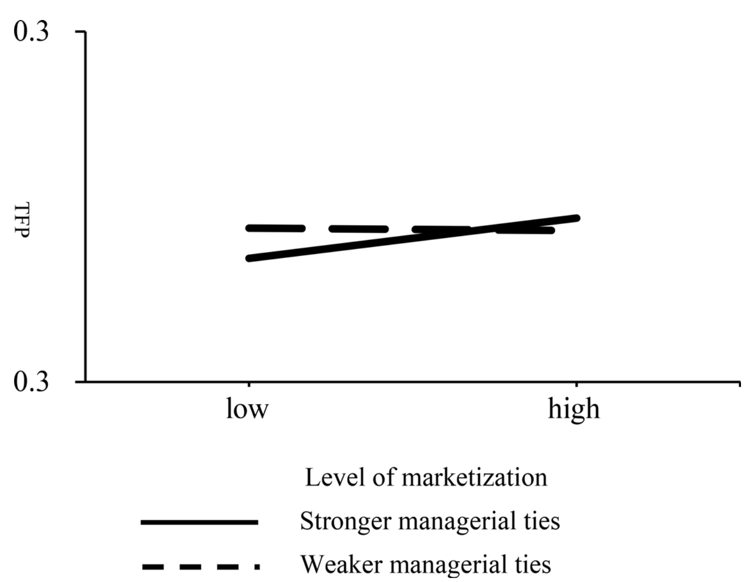

Fig. 2. The moderation effects of marketization on the relationship between the founder's managerial ties and firm-level productivity (TFP)

improving firms' productivity among newly listed firms in China. In emerging economies, institutions undergo revolutionary changes in the past decades. Thus, it is important to study institutions in emerging economies, not only because formal institutions (e.g., marketization, economic liberalization, regulatory regime) and informal institutions (e.g., culture and social ties) are different from developed economies, but also institutions are experiencing huge changes during the transition period.

Our results indicate that the beneficial role of a more developed formal institutional environment as formal institutions can positively shape the relationship between social ties and firms' productivity. Institution-based view addresses the substitutive nature between formal and informal institutions and proposes that in emerging economies whereby formal institutions are weak, informal institutions rise to play a larger role in driving firm strategies and performance (Peng et al., 2008). In other words, firms would tend to reply to informal institutions, such as social ties, to compete in the weak formal institutional environment in emerging economies. Our results show the founder's both managerial and political ties improve firms' productivity in an environment with more established formal institutions. This interesting finding contributes to the institution-based view by revealing the complementary nature between marketization (as formal institutions) and social ties (as informal institutions).

Managerial implications

Our findings have important theoretical and practical implications. Theoretically, we indicate the importance of the founder in driving the firm's strategic outcomes and performance among newly listed firms in China. Conventional wisdom advocates the founder's inability in dealing with opportunities and threats in the post IPO phase and suggests the founder should hand over the control to professional managers. Our results, however, reflect the beneficial role of founders in emerging economies and imply the founder's uniqueness in coping with challenges after public listing.

Our results expose the fact that the development of formal institutions lays the foundation for the firm's growth. The free flow of information and production factor created by the marketization accelerate the firm's innovative activities and enhance performance. Our paper also shows the importance of informal institutions, such as social ties. The beneficial role of the social ties would escalate, rather than diminish, following the development of formal institutions. This reveals the uniqueness of emerging economies, in particular, China, where the social network is vital.

Practically, our study implies that founders should develop different types of social ties for different strategies. If a firm aims to pursue technological innovation to improve operational efficiency, developing managerial ties could be a better strategy than developing political ties. On the other hand, if they aim to obtain short-term interests, political ties may be helpful. As we have suggested in our study, marketization positively moderates the relationship between a founder's social ties and productivity. This implies that founders of small firms should pay attention to the institutional environment they are located in when deciding on the type of social ties they pursue. If they come from regions with high levels of marketization, a better strategy would be to develop both political ties and managerial ties so that superior productivity can be achieved.

Limitations and future research directions

This paper has two limitations, which help to open promising avenues for future research. First, our measurement of social ties only catches the existence of networks. Further studies should develop alternative and comprehensive measures that reflect the distinct nature of an individual's social ties in order to obtain more convergent results. In addition, the strengthening of the ties can also be a powerful determinant of information flow, which should be highlighted and examined further.

Second, our sample only contains newly listed firms on GEM in China. Future research should also include firms listed on the main board of Shanghai and Shenzhen Stock Exchange to gain a more comprehensive understanding of the founder's effects on a firm's productivity. Furthermore, our findings may be applied only to Chinese entrepreneurial founders and firms. Therefore, it would be instructive to discover whether our findings can be generalizable to other emerging economies.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Da Teng is an associate professor at School of Economics and Management, Beijing University of Chemical Technology. He earned his PhD in Management Studies at King's College London. His research interests include international business and corporate governance. In particular, he is interested in examining the effects of the institutions in shaping entrepreneurial firm's strategy and performance in emerging economies. He has published in journals such as A*sia Pacific Journal of Management, International Small Business Journal, International Business Review*.

Bin Hao received the Ph.D. degree in business administration from School of Management and Economics, Tongji University in 2009. He is an associate professor at the School of Business, East China University of Science and Technology. His research examines how collaboration, in both developing and developed institutional settings, drives incremental and radical innovation. He has published papers in journals such as *R&D Management, Technovation, International Small Business Journal, IEEE Transactions on Engineering Management, European Management Journal*, etc.

Xiangdong Sun received his Ph.D at Beijing Normal University. He is a professor at School of Economics and Management, Beijing University of Chemical Technology. His research interests focus on environment, resource, and regional development. His works appear in journals such as Land use policy, Energy Strategy Reviews, among many others.

Ziming Cai is Assistant Professor at Nottingham University Business School. He received his Ph.D. from Cardiff University Business School. His research interests include HRM and corporate strategy in emerging economies. He has published in journals such as the *R&D Management, International Journal of Human Resource Management,* and *Journal of Corporate Finance*.

Jing Chen is an Assistant professor at the Nottingham University Business School. She also worked as a Senior lecturer in Accounting and Finance in Bristol Business School, UWE. She received her PhD from Cardiff business school, Cardiff University in 2009. Her work has been published in journals such as *Long Range Planning, International Journal of Human Resource Management,* and *Journal of Corporate Finance*.