Title page

- Paper title
Hear it straight from the horse's mouth: Recognizing policy-induced opportunities
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Hear it straight from the horse's mouth: Recognizing policy-induced opportunities

What types of entrepreneurs are more likely to 'stay tuned' to government policies and does it pay? Integrating work on opportunity recognition and the institution-based view, this study examines the link between the pursuit of policy-induced opportunities and firm performance. Based on data analysis of 3284 Chinese privately owned firms in 31 regions/provinces in China, we find that entrepreneurs who have past working experience within the government are more likely to stay alert to government policies involving entrepreneurial opportunities, which leads to entrepreneurial activities and ultimately firm performance. This study enriches our understanding of opportunity recognition and development by expanding it to political markets. We assess the role of institutional variation as an important factor in emerging economies. We unravel the pivotal role of entrepreneurial alertness to government policies on enhancing firm performance by strengthening entrepreneurial activities.

Keywords: policy-induced opportunities; government policies; entrepreneurial alertness; firm performance; transition/emerging economies.

Introduction

Entrepreneurial opportunities are core to the field of entrepreneurship (Venkataraman 1997, Shane and Venkataraman 2000, Sarasvathy et al. 2003). Scholars distinguish between two opportunity theories, namely, discovery theory and creation theory (Alvarez and Barney 2007). Previous research on ‘discovered’ opportunities suggests that opportunities objectively exist and primarily concern the opportunities identified in the ‘commercial’ market. In the opportunity recognition and development literature, however, there is little consideration of opportunities arising in the political market (Short et al. 2010), which we label as *‘policy-induced opportunities’* in this paper. Although Drucker (1985) suggests that one source of opportunities is the emergence of significant changes in political forces, ‘policy-induced opportunities’ have not been explicitly articulated, let alone comprehensively investigated (Jacquemin and Janssen 2015; Short et al. 2010).

The omission of policy-induced opportunities is problematic as this kind of opportunities is ubiquitous in emerging markets. They may help to shed light on the puzzle of the rapid growth of the private sector in emerging markets such as China. Over the past 40 years, Chinese privately owned firms have risen from a starting point with almost nothing to achieving a prominent position in the Chinese economy. According to the China National Bureau of Statistics, there are 2,859,000 privately owned firms in China, accounting for 78.3% of the total number of firms (China National Bureau of Statistics 2018a). Privately owned firms create more than 80% of the nation’s industrial value added and employ more than 80% of the working population (China National Bureau of Statistics 2018b), despite the

unfavourable institutional environment facing the private sector (Zhou 2011; Su, Zhai, and Landström 2015; Dai and Liao 2018).

Two streams of research strive to explain this phenomenon. One stream of research highlights the role of informal institutions such as '*guanxi*' or personal connections as substitutions for formal institutions in regulating the economic exchanges and supporting the development of private firms in China (e.g., Armanios et al. 2017; Zhou 2013; Peng and Luo 2000). The other stream, however, emphasizes the role of positive changes in the formal institutional framework especially the policies enacted by the Chinese governments that offered ample opportunities for private firms (e.g., Zhou 2011, 2013). Although the former offers intriguing insights with explanatory power, the latter has recently captured increasing scholarly attention (e.g., Ge et al. 2017; Dai and Liao 2018). To move this line of research forward, there is a need for researchers to explicate how changes in the formal institutional frameworks and, in particular, the promulgation of new government policies (e.g., deregulations) motivates private firms to grow and prosper in China. Indeed, a range of privately owned firms in China were growing out of 'relying upon government policies' (Dai and Liao 2018). Both existing research and managerial practice motivated us to posit that a comprehensive understanding of policy-induced opportunities is the key to further explain the growth miracle of Chinese private firms. As a point of departure, this paper thus aims to explore policy-induced opportunities by examining the following two questions: (1) How are 'policy-induced' opportunities identified and developed? (2) Does it pay for entrepreneurs to engage with government policies and exploit 'policy-induced opportunities'?

We address the research questions by assessing the factors fostering entrepreneurial alertness towards government policies, subsequent entrepreneurial actions, and resulting financial performance. Specifically, we combine insights from the entrepreneurial opportunity recognition literature and the institution-based view with special attention to the context of emerging markets. We build on Ardichvili, Cardozo, and Ray (2003) and Tang, Kacmar, and Busenitz's (2012) conception of entrepreneurial alertness, and integrate Peng, Wang, and Jiang's (2008) institution-based view of emerging market business into our framework to account for the Chinese context and understand the underlying nature of Ardichvili and his colleagues' (2003) opportunity recognition and development framework for emerging economies.

The Chinese context is a perfect 'laboratory' for this study. First, policy-induced opportunities have been pervasive in China (Zhou 2011). Ever since the reform and opening up, the Chinese government has deregulated and implemented a range of pro-market reforms, giving rise to a proliferation of policies that encourage individuals and/or incumbent firms to engage in entrepreneurial activities (Dai and Liao 2018). The exemplary policies that have been implemented by *the central government of China* are listed in Table 1. These policies, especially those regarding deregulations, constitute the main sources of policy-induced opportunities (Dai et al. 2018; Dai and Liao 2018).

[Insert Table 1 about here]

Second, some Chinese entrepreneurs are enthusiastic about policy-induced opportunities. Due to a lack of formal institutions supporting private businesses (Ahlstrom and Ding 2014;

Huang 2008), entrepreneurs from privately owned firms in China often establish personal ties with government officials in the hope that these political ties may protect their private property and lead to favourable treatment from officials (Dai et al. 2018). Importantly, such political ties not only enable entrepreneurs to capture the essence of newly promulgated government policies, but also facilitate the identification and development of actionable opportunities by discussing with or consulting government officials (Jacquemin and Janssen 2015). Occasionally, entrepreneurs from privately owned firms may be involved in shaping government policies. Indeed, Xing, Liu, and Cooper's (2018) qualitative research shows that in emerging markets, entrepreneurs may be involved in making rules at the local or regional level rather than just following them.

Based on a sample of 3284 private firms in China, we find that entrepreneurs with prior work experience in the government are more likely to be alert to government policies and translate policy-induced opportunities into firm performance via entrepreneurial activities. In doing so, we contribute to the entrepreneurship literature in significant ways. First, we introduce the concept of 'policy-induced opportunities' to signify the special nature of opportunities that are presented outside of the regular marketplace. In echoing the call from Eckhardt and Shane (2003), Short et al. (2010) as well as Jacquemin and Janssen (2015), we examine these unique opportunities in emerging economies in a comprehensive manner, answering how they are recognized, by whom, and with what consequences (Venkataraman 1997). Second, we not only build upon but also enrich Ardichvili and his colleagues' (2003) framework of opportunity recognition and development by extending it to emerging economies. Specifically, we show that there is heterogeneity between entrepreneurs in being

alert to policy-induced opportunities and demonstrate subsequent implications for firm performance. Such an extension is meaningful, as emerging economies follow a different rulebook and play an increasingly important role for the world economy.

Theoretical Framework

Monitoring the environment, identifying opportunities, developing actions, and deciding to act upon the opportunities are key to the entrepreneurial process (Venkataraman 1997; Shane and Venkataraman 2000). The literature on opportunity recognition and development has discussed a large range of different models, often concentrating on a particular part of the process or offering a perspective from a particular lens (e.g., Ardichvili et al. 2003; Baron and Ensley 2006; Ozgen and Baron 2007). In this paper, we argue that particularly in economies that rely on state interventions or where investments are guided by actors close to the state (as especially in parts of Asia, the Middle East, and Africa), institutions—here, the state—and entrepreneurial actions are at times intertwined. Thus, we may benefit from an embeddedness perspective to understand the entrepreneurial process in these contexts.

The traditional understanding of opportunities relates to creating or addressing market disequilibria (Schumpeter 1934; Kirzner 1973), often through a recombination of resources and capabilities to address (latent) demands. As such, opportunities created through changing institutional frameworks or opportunities designed through state interventions have not been at the forefront of the research agenda as they do not reflect the traditional understanding of the markets in equilibrium theory but have rather been systems discussions with ideological flair (Hayek 1945). Nevertheless, these kinds of opportunities have gained importance in a

changing world order driven through the institutional settings of emerging economies and particularly the specific ways these economies have been developing. In our sample, we can see that some entrepreneurs seem to ‘make a living’ from following policies closely.

Opportunity recognition consists of at least three processes. First, it incorporates the sensing of opportunities. Sensing may be directed towards resources that may be better deployed and market needs that may be addressed. In our case, sensing includes the scanning of opportunities involved in government policies that may be actionable for the entrepreneur. The second process we label as seizing of opportunities. This process includes the matching of the opportunity with the resources available to the entrepreneur. This process, for example, may entail an action plan including resource allocation of the entrepreneur to address, make use of, or even shape government policies. Indeed, we need to take into account that in emerging economies, entrepreneurs often shape institutions to their own interests (Xing, Liu, and Cooper 2018). The third process encompasses action to exploit the opportunity, for example, the development of a product to fulfil market needs or entrepreneurial activities that result from favourable policies.

Ardichvili et al. (2003) stress four factors next to the characteristics of the entrepreneur that affect opportunity recognition. First, entrepreneurial alertness describes the openness and sensitivity of the entrepreneur to a certain kind of information. Second, information asymmetry and prior knowledge make entrepreneurs more likely to recognize opportunities. Third, search describes the active and conscious search for new opportunities in a certain space. Fourth, strong and weak ties or generally social networks enhance the chance of

opportunity recognition.

In our setting of emerging markets and with special interest to the exploitation of government policies, the above four factors propose that entrepreneurs that are close to the government, be it through active lobbying, prior exposure, privileged access, etc., may be more prone to recognize opportunities than entrepreneurs without these characteristics (Jacquemin and Janssen 2015).

We address at least one point that has attracted little attention in prior research. That is, little is known about the factors that trigger incumbent firms to engage in entrepreneurial activities that are based on policy-induced opportunities. This gap results from understanding markets as well-developed. However, policy-induced opportunities are a reality in many emerging markets and may play an important role in these markets (Dai et al. 2018).

As ‘insightful as the industry- and resource-based views are, they can be criticized for largely ignoring the formal and informal institutional underpinning that provides the context of competition among industries and firms studied with these lenses’ (Peng et al. 2008). According to this idea, strategic choices can be driven through institutional frameworks such as government policies. As such, institutions may be directly responsible for strategic decisions (Ingram and Silverman 2002). These effects seem to be particularly visible in emerging/transition economies with direct implications for firm performance (Makino, Isobe and Chan 2004).

Peng et al. (2008) stress the Chinese growth miracle that occurs despite relatively weakly developed formal institutions. As such, understanding some of the mechanisms behind how

Chinese entrepreneurs make decisions within their institutional context and based on government policy is an important aspect of merging an institutions-based view of strategy and the literature on opportunity recognition. Here, the contextual nature of the four factors outlined by Ardichvili et al. (2003) is particularly important. Outlining the driving nature of the strategic decisions of entrepreneurs based on government policies and considering specific contexts of institutional developments may be a first step towards closing this gap.

Hypotheses

Experience and entrepreneurial alertness

Entrepreneurial alertness is a concept that goes back to Kirzner's (1973) work. While the idea of profit generation is traditionally understood as the purpose and outcome of entrepreneurial alertness (Hitt and Ireland 2000), there is no consensus about the definition, antecedents or drivers of entrepreneurial alertness (Valliere 2013). There has been a lively debate regarding the inclusiveness of the concept (Tang et al. 2012). Discussions incorporate the question of the nature of opportunities, the processes associated with opportunities, and their underpinnings. In this study, we take a broad view in the adoption of Tang et al. (2012) encompassing the sensing and seizing of opportunities as well as evaluating and judging the opportunities for potential action.

In our context of emerging markets and policy-induced opportunities, the four factors identified by Ardichvili et al. (2003) are applicable to increase the propensity for entrepreneurs to be alert. First, the openness of entrepreneurs to collaborate and be involved with the government is a predisposition for being alert to government-induced opportunities.

There is a divide between entrepreneurs with close connections to the government and those with no ties and some resistance toward working with the government, possibly due to the involved practices and financial implications (Shi, Markóczy, and Stan 2015; Sun and Wright 2012). Often, the openness to and closeness with government related activities is related to prior experience and involvement.

Second, informal ties to government officials and long-term affiliation with government departments may provide preferential access to information regarding new policies. For example, entrepreneurs with work experience in government functions are likely to have lasting bonds beyond the formal communication channels.

Third, in the process of sensing new opportunities, the entrepreneur engages in conscious, sometimes passive, sometimes active efforts to search for relevant information that may confirm, change, or lead to new beliefs of the world (Valliere 2013). Information scanning is carried out with existing mental frames and schemas that have been shaped through prior experiences (Gaglio and Katz 2001). In our context, we expect entrepreneurs that have had prior exposure to government activities to be alert to government-induced or policy-induced opportunities.

Fourth, receiving relevant information is often tied to an entrepreneur's social networks (Ozgen and Baron 2007; Rong and Shenkar 2011). Extensive research shows the role of strong and weak ties for sensing opportunities, seizing them, and taking subsequent actions (e.g. Sarasvathy 2001). While networks erode, are rebuilt, and can be redirected, prior experiences shape many of the strong and weak ties of the entrepreneur. As such,

entrepreneurs with prior exposure to government related activities are likely to be more alert to policy-induced opportunities through their networks and political involvement (Liu and Huang 2018; Jacquemin and Janssen 2015).

In summary, sensing and seizing policy-induced opportunities benefits from prior exposure and experience to government-related activities. We formulate these insights into a hypothesis as follows:

Hypothesis 1: Prior working experience of the entrepreneur within the government is positively associated with entrepreneurial alertness towards government policies.

Experience, institutional development and entrepreneurial alertness towards government policies

Institutions shape the ‘rules of the game’ in a society (North 1990; Scott 2008). China shows significant institutional differences across regions due to its size and degree of marketisation. Recent research further shows that there are significant differences in terms of formal institutions between adjacent cities in the same region in China (Liu and Huang 2018). Such differences between subnational institutions have increasingly attracted scholarly attention (e.g., Nguyen, Le, and Bryant 2013; Shi, Sun, and Peng 2012; Chan, Makino, and Isobe 2010; Meyer and Nguyen 2005). For instance, Kafouros et al. (2015) showed that variations in subnational institution development had effects on innovative, collaborative and financial performance.

We expect that regional institutional development shapes the association of entrepreneur

working experience in the government and entrepreneurial alertness towards government policies. Specifically, in regions with lower levels of institutional development, entrepreneurial opportunities are more likely to stem from changes in government policies because the governments in these regions participate more actively in economic affairs. In such settings, entrepreneurs pay constant attention to government policies and seek to increase their entrepreneurial alertness towards government policies by leveraging their prior working experience in the government (e.g., activate their ties to former colleagues in governments). Accordingly, in regions with lower levels of institutional development, the strength of the link between working experience within the government and entrepreneurial alertness towards government policies is enhanced.

In contrast, for firms situated in regions with higher levels of institutional development, the market may play a larger role than government activities (Child, Lu, and Tsai 2007). More importantly, the governments in these developed areas avoid intervening in economic development by controlling the policies or regulations that involve entrepreneurial activities (Dai et al. 2018; Dai and Liao 2018). Accordingly, entrepreneurs in such settings locate valuable entrepreneurial opportunities primarily in response to the market instead of responding to government action. Under such circumstances, the working experience within the government is less likely to be translated into entrepreneurial alertness towards government policies. We posit the following:

Hypothesis 2: The relationship between the entrepreneur's prior working experience within the government and entrepreneurial alertness toward government policies is

negatively moderated by regional institutions.

Entrepreneurial alertness and entrepreneurial activity

Corporate entrepreneurship refers to a company's strategic actions to take risks, innovate, and be proactive (Zahra and Covin 1995; Sharma and Chrisman 1999). It is about the idea of continuous renewal and is often ingrained into the 'DNA' of companies (Minola et al. 2016). Generally, firms undertake actions related to corporate entrepreneurship and particular corporate venturing with a mid- and long-term horizon. External corporate venturing is a form of corporate entrepreneurship that incorporates 'investments that facilitate the founding and/or growth of external businesses' (Covin and Miles 2007: 183). External corporate venturing is particularly relevant for the case of pursuing policy-induced opportunities due to the market facilitating character of policies. In our case, this idea is reflected by prior experiences of entrepreneurs in the political arena that become part of their natural habitat. Policy-induced opportunities generally target market-based activities that may enhance the market or are protective to it. They will be changes in the institutional frame for mid- and long-range activities. Following and exploiting the development of policies enables entrepreneurs to take calculated risks in proactively addressing these opportunities and recalibrate their business activities accordingly.

Entrepreneurs with close attachment to the government do not only benefit from potentially better, more accurate, and timely information, but they also may be more agile to adapt and reconfigure their companies for grasping opportunities (Dai and Liu 2015). As such, we expect entrepreneurs with alertness to government movements to benefit from

policy-induced opportunities in terms of corporate venturing activities (Keil 2004; Kuratko, Hornsby, and Hayton 2015; Vanacker et al. 2017). Thus, we propose the following hypothesis:

Hypothesis 3: Entrepreneurial alertness towards government policies is positively associated with corporate venturing activities.

Entrepreneurial alertness, entrepreneurial activities, and firm performance

Entrepreneurial alertness directly affects strategic decision making and financial performance (Roundy et al. 2017). Alert entrepreneurs are more likely to understand and act on opportunities as they may see a first-mover advantage that is pertinent for policy-induced opportunities that may not be as transparently communicated and not be as competitively followed by other entrepreneurs. The alertness also may reduce perceived uncertainty as government policies and discussion around changes may be ongoing and do not catch alert entrepreneurs unprepared. As such, entrepreneurs who constantly update their beliefs about the environment and stay tuned into news may make better use of policy-induced opportunities, adapt, and benefit from them. Thus, we hypothesize the following:

Hypothesis 4: Increased entrepreneurial alertness towards government policies is positively associated with firm performance.

Entrepreneurial activities may empower a firm by enhancing its profitability (Simsek and Heavey 2011), by realizing strategic renewal (Guth and Ginsberg 1990), by pursuing innovation (Baden-Fuller 1995), by helping it to gain knowledge to develop future revenue streams (Simsek and Heavey 2011), by achieving international success (Zahra and Garvis

2000) or by reconfiguring resources to develop competitive advantages (Kuratko, Ireland, and Hornsby 2001).

Through such entrepreneurial activities, firms are enabled to successfully expand their business portfolios and increase their sales (Yiu and Lau 2008; Antoncic and Prodan 2008; Kemelgor 2002; Zahra and Garvis 2000). In addition, policy-induced opportunities may often be highly rewarding, as they allow access to formerly exclusive opportunities for state-owned firms. Competition in this opportunity space may be less crowded as not all firms closely follow government policies. Privately owned firms that engage in entrepreneurial activities by pursuing policy-induced opportunities are thus able to reap considerable benefits and increase their return on investments (Zahra and Hayton 2008; Antoncic and Hisrich 2001; Covin and Slevin 1989). Thus, we hypothesize the following:

Hypothesis 5: Increased entrepreneurial actions as a result of entrepreneurial alertness towards government policies are positively associated with firm performance.

Figure 1 presents the theoretical framework for the aforementioned hypotheses.

[Insert Figure 1 about here]

Methods

Data and sample

To validate our hypotheses, we gathered data from two sources. The first data source was from the 2012 China National Privately Owned Firms Survey conducted jointly by researchers from four institutions, namely, the Academy of Social Science, the All China

Industry and Commerce Federation and the United Front Work Department of the Central Committee of the Communist Party. The survey intended to collect information from Chinese entrepreneurs in the private sector and to assist the central government to fine tune policies regarding to private owned firms (Zhao and Lu 2016). To ensure that the sample firms were representative of Chinese privately owned firms, the researchers generated a nationwide random sample of such firms, using a multistage stratified sampling technique across all provinces and industries (for the detailed sampling scheme, see Jia and Mayer 2017). The researchers interviewed entrepreneurs (or founders) of each private firm represented in the sample. These procedures gave rise to reliable datasets for high-quality studies in the literature (e.g., Dai and Liao 2018; Jia and Mayer 2017; Zhao and Lu 2016; Gao and Hafsi 2015; Du 2014).

The data collected through this national survey of Chinese privately owned firms are suitable for this study for three reasons. First, they provide relevant information on representative Chinese privately owned firms. Second, the initial aim of the survey was not to explicate policy-induced opportunities but to collect information on the performance of Chinese privately owned firms. As a result, it is unlikely to introduce any threats from interviewer induced bias in using this dataset. Third, the sample firms are exactly the kind of entrepreneur-controlled privately owned firms (Zhao and Lu 2016) in which entrepreneurs dominated the decision-making process. As such, this sample is appropriate for our purpose of examining how the entrepreneurial alertness to government policies (which is a seemingly individual-level construct) is shaped by entrepreneurs' prior working experience and how

such alertness instigates entrepreneurial activities and stimulate firm performance.

The second data source for our study is the Index of Marketisation of Chinese Provinces, which was developed by the National Economic Research Institute (NERI) for China (Fan, Wang, and Zhu 2009; Wang et al. 2017). This index follows the methodology of the Economic Freedom of the World Index and ranks Chinese provinces according to their levels of market/regulatory/legal development (Zhou 2011). This dataset was widely employed for indicating regional institutional development in China (e.g., Zhao and Lu 2016; Shi, Sun, and Peng 2012; Chen and Kim 2010).

The final dataset for our study consists of firm-province observations. These observations are included for two reasons. First, each firm's location can only be identified at the provincial level. Second, the level of regional institutional development is also measured at the provincial level. Following Barnett and Lewis (1994), we winsorize the sample at the 1% level to exclude extreme values. Our final sample contains 3284 observations. Table 2 reports the descriptive information regarding our sample.

[Insert Table 2 about here]

Measures

Firm Performance (ROS/ROE). To capture the economic outcome from entrepreneurial alertness towards government policies, we follow Yiu and Lau (2008), Antoncic and Prodan (2008), Kemelgor (2002), and Zahra and Garvis (2000) by using return on sales (ROS) as the dependant variable. To test the robustness of the regression analyses, we follow Zahra and

Hayton (2008), Antoncic and Hisrich (2001) and Covin and Slevin (1989) to employ return on equity (ROE) as the dependant variable. Both of these variables have been widely used in previous entrepreneurship studies involving firm performance.

Entrepreneurial Alertness towards Government Policies (ALERTNESS).

Entrepreneurial alertness towards government policies represents the extent to which entrepreneurs pay attention to and are aware of the policies enacted by government agencies. In transition economies such as China, the governments constantly promulgate policies or regulations affecting the private sector as initiatives to foster economic growth (Zhou 2011). We thus gauge entrepreneurial alertness towards government policies by determining the extent to which entrepreneurs are familiar with the latest government policies regarding the private sector, with ‘3’ indicating detailed familiarity, ‘2’ indicating general awareness and ‘1’ indicating a lack of awareness.

In the 2012 China National Privately Owned Firms Survey, the respondents were asked to rate the degree to which they were familiar with the following five national policies in relation to the private sector: (1) Several Guidelines on Further Promoting the Development of Small and Medium-sized Enterprises, issued by the State Council; (2) Several Guidelines on Encouraging and Guiding the Healthy Development of Private Investment, issued by the State Council; (3) Several Guidelines on Further Enhancing the Financial Service to SMEs, jointly issued by the People’s Bank of China, the banking regulatory commission of the CSRC, and the insurance regulatory commission of China; (4) SME Growth Planning in the 12th Five-Year Planning Period, issued by the Ministry of Industry and Information

Technology; and (5) Nine Initiatives of Supporting Small and Micro Businesses, issued by the State Council. , we aggregated the respondents' scores for these items to derive a continuous variable of entrepreneurial alertness towards government policy.

Corporate Venturing (CV). Corporate venturing represents firm-level entrepreneurial activities that occur outside of the incumbent firms (Narayanan, Yang, and Zahra 2009). Corporate venturing is a dynamic concept whose dimensions change overtime (Keil 2004; Kuratko, Hornsby, and Hayton 2015). Corporate venturing consists of investments in new businesses that involve setting up new external entities, investments for mergers with other firms or acquisitions of existing external firms (Burgelman 1983; Narayanan, Yang, and Zahra 2009). We thus measured corporate venturing by aggregating a focal firm's investments in these aspects reported in the 2012 China National Privately Owned Firms Survey.

Past Working Experience within Government (EXPR_GOV). The government is a critical component of the Danwei system in China. During the era of the planned economy, the Danwei system included not only government departments and institutions but also state-owned and collective enterprises (Bjorklund 1986). This system had a pervasive influence on almost every aspect of the employees' and their families' lives (Whyte 1999; Dai et al. 2018). We measure entrepreneurs' past working experience within the government by asking whether an entrepreneur had worked for a government department or institution *before* starting his or her own business (1 = yes, 0 = no).

Institutional Development (INSTITUTION). Institutional development is measured annually at the provincial level according to the NERI's marketisation indices (for details, see

Wang et al. 2017). The NERI index provides an overall assessment of each province's institutional development from the following five perspectives: the government-market relations (i.e., governmental intervention in markets), the share of non-state-owned enterprises, the level of development for product (and service) markets, the level of development for factor markets and the level of development for market intermediaries and the legal system (Shi et al. 2012). As mentioned earlier, the NERI index is widely used in the management literature (e.g., Zhao and Lu 2016; Chen and Kim 2010; Shi et al., 2012).

Controls. To account for alternative explanations, we also include sets of individual-and firm-level variables as controls. At the individual level, we control for the entrepreneurs' social class (SOCLSS) and the entrepreneurs' education level (EDU). The entrepreneurs' social class indicates the social capital of all surveyed business leaders, as social class may have an influence on their strategic decisions (Roussanov 2010). We measure social class (SOCLSS) using a 10-point scale (1 = lowest, 10 = highest). As the entrepreneurs' education levels may also affect their decision-making processes (Wiersema and Bantel 1992), we control for entrepreneurs' education (EDU) by using a dummy variable that indicates whether an entrepreneur has a university degree (1 = yes, 0 = no).

At the firm level, we include the controls of firm age (HIS), firm size (LnEMPLOY, SIZE), family ownership (FAMOWN), formal structure (FORMALSTC), firm leverage (LEV), firm exports (EXPORT) and firm OFDI (outward foreign direct investment, or FRINVST). Firm age (HIS) is related to a firm's strategic behaviour (Hamilton, 2012). Thus, we control for the number of years since the firm's foundation. Firm size also has important

effects on a firm's strategic behaviour and outcomes (Acs and Audretsch 1988). We therefore add the natural logarithm of the number of employees (LnEMPLOY) and the natural logarithm of assets (SIZE) as controls. Following Garcés-Galdeano et al. (2016), family ownership (FAMOWN), which is measured by the ratio of equity owned by the founder and his or her family, is also controlled for. Formal structure (FORMALSTC) indicates the extent to which a firm has sound corporate governance (Dai and Si, 2018). This factor is measured by whether a firm has its own board of shareholders, board of directors or board of supervisors. We also include financial leverage (LEV), which is measured as the total of a firm's bank loans, scaled by its sales revenue in the surveyed year (Du 2014). Following Zhang and Li (2000), firm exports (EXPORT) (measured as the ratio of annual export sales to annual total sales) and OFDI (or FRINVST) (measured by the ratio of outward foreign direct investment to revenue) are also controlled for. To rule out the possible threats posed by industrial heterogeneity, we included industry dummies in all regression models.

3.3 Statistical Modelling

The unit of analysis in this study is the firm. We apply the OLS regression, the Tobit regression and multi-level hierarchical linear modelling (HLM) to estimate all of the models, according to the types of dependent variables and the research levels of independent variables included in each specific model. Specifically, we use the OLS regression to estimate related models whose dependent variables are either ROS or ROE because these dependent variables (i.e., ROS, ROE) are continuous and normally distributed. We employ the Tobit regression when the dependant variable of the model is corporate venturing since it is non-negative

(Woodridge 2010). Since the regional institutional development is measured at the regional level, while other variables are measured at the firm level, we use multi-level hierarchical liner models (HLM) to test the moderating role of regional institutional development on the link of entrepreneurs' past working experience in government and entrepreneurial alertness towards government policies (Bliese 2000; Hofmann 1997; Raudenbush 1988).

Findings

Table 3 presents the descriptive statistics concerning all of the variables, and Table 4 presents the correlations of the main variables.

[Insert Table 3 and Table 4 about here]

Tables 5-6 present the results of the regression analysis. In Hypothesis 1, we propose that the past working experience within governments (EXPR_GOV) is positively related to entrepreneurial alertness towards government policies (ALERTNESS). To test Hypothesis 1, model 1 in Table 5 uses the Tobit regression, showing that past working experience within government (EXPR_GOV) is positively and significantly related to entrepreneurial alertness towards government policies (ALERTNESS) ($b = 1.492, p < 0.01$). Thus, Hypothesis 1 is supported.

Hypothesis 2 suggests that regional institutional development (INSTITUTION) moderates the relationship between past working experience in government (EXPR_GOV) and entrepreneurial alertness towards government policies (ALERTNESS). To test this hypothesis, we include the interaction term of past working experience in government and

institutional development ($\text{EXPR_GOV} \times \text{INSTITUTION}$). The factors are mean-centred before the creation of the interaction term, to reduce the potential problem of multicollinearity (Aiken and West 1991). Since the regional institutional development is measured at the provincial level, while other variables are measured at the firm level, we thus employ multi-level hierarchical linear modelling (HLM) to examine the role of regional institutions. The results shown in model 4 of Table 5 indicate that the interaction term is significantly and negatively related to economic performance ($b = -0.375, p < 0.01$). Thus, Hypothesis 2 is supported.

[Insert Table 5 about here]

In Hypothesis 3, we propose that entrepreneurial alertness towards government policies drives entrepreneurial activities. The results shown in model 2 of Table 6 show that entrepreneurial alertness towards government policies (ALERTNESS) is significantly and positively related to corporate venturing (CV) ($b = 0.065, p < 0.01$). Thus, Hypothesis 3 is supported.

In Hypothesis 4, we posit that entrepreneurial alertness towards government policies tends to enhance private firms' economic performance. The results shown in model 5 of Table 6 show that entrepreneurial alertness towards government policies (ALERTNESS) is significantly and positively related to firm performance (ROS) ($b = 0.010, p < 0.01$). Thus, Hypothesis 4 is supported.

In Hypothesis 5, we propose that corporate venturing is conducive to firm performance. The results shown in model 4 of Table 6 show that corporate venturing (CV) is significantly

and positively related to firm performance (ROS) ($b = 0.084, p < 0.01$). Thus, Hypothesis 5 is supported.

[Insert Table 6 about here]

To test the robustness of the above findings, we use ROE to represent firm performance and investigate the relationships between entrepreneurial alertness towards government policies, corporate venturing and firm performance. The findings, which are listed in Table 7, show that the results remain largely unchanged, thereby supporting the above hypotheses we examine.

[Insert Table 7 about here]

Discussion

Theoretical contributions

To shed new lights on the puzzle of rapid growth of Chinese private firms in the past four decades, this study explores the idea of policy-induced opportunities. We show how prior working experience leads entrepreneurs to be aware of opportunities resulting from policy changes and how this affects their actions. In emerging economies, governments play more of a vitalizing role for entrepreneurial firms than we would expect in entirely market-governed economies. Entrepreneurs may see opportunities through the policy making process and gain advantages from their involvement (Xing, Liu, and Cooper 2018). Our study makes three contributions.

First, we use the concept of ‘policy-induced opportunities’ to note the special nature of opportunities that are presented outside of the regular marketplace. Most of our insights are based on market settings in developed economies. In emerging economies, market settings may be more ambiguous than traditionally assumed. We provide evidence of the transitional nature and the importance for policy-induced opportunities in countries that are developing their economies. We show that past working experience in governments and thus closeness to the government are beneficial to understanding policy-induced opportunities with direct implications for corporate venturing activities and firm performance. As a result, we explicate the phenomena of ‘policy-induced opportunities’ in a comprehensive manner, answering how they are recognized, by whom, and with what consequences (Venkataraman, 1997).

Second, we not only build upon but also enrich Ardichvili and his colleagues’ (2003) framework of opportunity recognition and development by extending it to emerging markets in which a considerable portion of entrepreneurial opportunities stem from government policies. Such an extension is meaningful as emerging economies play an increasingly important role in the world economy. Ardichvili and his colleagues (2003) focus on two types of entrepreneurial opportunities in their theoretical framework, namely, unmet market demand (i.e., value sought) and under-utilized valuable resources (i.e., value creation capability). These types of opportunities are prevalent in developed market system settings. We add a third type of opportunities that we label as ‘policy-induced opportunities’ that account for the transitional nature of these economies.

Third, we combine and extend the concept of entrepreneurial alertness (Ardichvili et al. 2003; Tang et al. 2012) with the institution-based view that expands over a) policy-induced opportunities and b) considering the development stage of the regional institutions. By doing this, we extend the literature on entrepreneurial alertness perspective with an emerging market perspective. Some researchers suggest that as time goes by, a clear-cut economic boundary between government and market activities will emerge, and the market system will take on the role of governments for distributing crucial resources and opportunities. Other scholars argue that the government will continue to play a pivotal role in economic development. In this view, entrepreneurial alertness to shifting government policies will remain important for entrepreneurs as long as the political system of state intervention exists (Haveman et al. 2017). There is evidence that shows that political co-creation plays an increasingly significant role in promoting the performance of privately owned firms (Xing, Liu, and Cooper 2018; Haveman et al. 2017). If the latter fraction of researchers is right, our study offers much potential for future research endeavours that further examine entrepreneurial activities and development from the entrepreneurial alertness perspective.

Managerial implications

Our findings also have several practical implications. First, entrepreneurs should be aware that a significant portion of entrepreneurial opportunities in emerging economies are tied to government-related activities. As Shane (2003) and Ge et al. (2017) suggest, entrepreneurial opportunities emerge not only in the commercial market but also in the political market (Peng and Luo 2000; Wang et al. 2011; Yiu and Lau 2008). Just as Yang's (2002, 2004) '*double*

entrepreneurship' concept indicates, entrepreneurs in China should be politicians in addition to businessmen, staying alert to new movements in the government and effectively making use of institutional rules (Yang 2007). Entrepreneurs in transition economies need to become experts in not only doing their business but also reading the signals and interpreting the shifts of government policy (Bruton, Ahlstrom, and Obloj 2008). Developing this kind of *'non-business' capability* is a challenge that entrepreneurs in transition economies need to face (Yang 2007; Bruton, Ahlstrom, and Obloj 2008).

Second, our findings indicate that entrepreneurial alertness is one of the most valuable corporate resources, as evidenced by our findings that the allocation of entrepreneurial alertness is directly linked to entrepreneurial activity and firm performance. As a result, it is highly critical for entrepreneurs to steer their alertness in a way that facilitates the discovery of potential opportunities and enhances firm performance. We also find that working experience dictates entrepreneurial prior knowledge, forming 'corridors of knowledge' for screening entrepreneurial opportunities and shaping entrepreneurial alertness (Kirzner 1985). In this sense, entrepreneurs need to enrich their experience to create more 'knowledge corridors' that recognize a variety of entrepreneurial opportunities.

Limitations and future directions

Although this study presents a number of important theoretical and practical implications, it inevitably has its limitations that open up opportunities for future researchers. First, as presented by Ardichvili et al. (2003), a host of variables are able to shape entrepreneurial alertness, including entrepreneurs' personality traits and their social networks. Accordingly,

future research may focus its attention on these factors in addition to entrepreneurial working experience and prior knowledge. Beyond that, we encourage future research to look at other factors including the background (e.g. local entrepreneurs vs. returnees) or their approaches (e.g. bricoleurs, entrepreneurs using causation, effectuation etc.) (Liu 2018; Liu and Almor 2016). Second, although China is the largest emerging/transition economy in the world, and although it bears similarities to other transition countries, this nation has distinctive characteristics resulting from its long history, unique culture and distinctive traditions. Thus, future research should replicate our model in other emerging/transition economies to test its generalizability. Finally, subject to the dataset used, we apply a cross-sectional research design, which hinders the establishment of causal relationships between various variables. Future research should further investigate these relationships by using a longitudinal dataset and research design.

Conclusion

Focusing on the questions of how policy-induced opportunities, which take on unique roles in the context of emerging/transition economies, are recognized, by whom, and with what consequences, we delineate and substantiate a unique pattern of opportunity identification and development that has been practiced by Chinese privately owned firms during the country's transition from a planned economy to a market economy. We thus enrich the theoretical framework of opportunity recognition and development by Ardichvili et al. (2003) and lay the foundations for future research to explicate policy-induced opportunities in a deeper and wider manner.

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Figures and tables

Figure 1. The theoretical framework.

Table 1. Exemplary policies encouraging entrepreneurship in China.

	Year	Policy	Key messages	Interpretation of the policy
1	2003	<i>“The 2003 Small and Medium Enterprises (SME) Promotion Law”</i>	The government treats the development of small and medium-sized enterprises as a long-term strategy, ensuring equal rights and equal opportunities for all small and medium-sized enterprises through creating a favorable environment	For the first time, the government is required to develop support systems that provide SME with resources and inputs needed to start and grow their venture
2	2005	<i>“Thirty-six Principles on the Non-public Economy”</i>	This policy allows non-public capital to enter industries and areas not prohibited by laws and regulations. Non-public capital are entitled to enter industries and sectors that allow foreign capital to enter	The State Council promulgated this policy to seriously tackle the problems of government predation of and discrimination against private firms
3	2010	<i>“Opinions on encouraging and guiding the healthy development of private investment”</i>	Private firms are encouraged to invest in such industries as infrastructure, public utilities, policy-oriented housing construction, defense and military industries, etc.	The State Council issued this policy to expand the scope of investments by private firms
4	2012	<i>“Opinions on further supporting the healthy development of small and micro-sized</i>	Small and micro businesses will receive assistance in terms of tax relief, financing,	The State Council promulgated this policy to help small and micro businesses boost confidence,

Year	Policy	Key messages	Interpretation of the policy
	<i>enterprises”</i>	technological innovation and market entry from the government.	operate stably, improve profitability and sustainability, and enhance their sustainable developments.
5	2014	“Guiding Opinions on Innovating Investment and Financing Mechanisms in Key Areas and Encouraging Social Investment”	Private firms are encouraged to participate in investments in key areas such as public service, resources and environment protection, ecological development and infrastructure
6	2015	“Guidelines on Developing Maker Space for Mass Entrepreneurship and Innovation”	This policy aims to accelerate the development of new entrepreneurial service platforms such as the Maker Spaces
7	2016	“Opinions on promoting venture capital investment”	The general office of the State Council issued this policy to develop a better environment for mass entrepreneurship and innovation
8	2017	“Opinions on further motivate investments to the social sector”	This policy is an overarching institutional design for the venture capital industry in China
		Investors in the social service industry will receive a range of supports from the government in terms of tax relief, financing, care	This policy is an overarching institutional design for the venture capital industry in China

Year	Policy	Key messages	Interpretation of the policy
		recruitment, etc.	

Table 2. Study sample distribution by region, age, and employee number.

Region	Number	Percentage	Firm age (HIS)	Number	Percentage
Beijing	126	3.84	<10	2243	68.30
Tianjing	83	2.53	10-20	1006	30.63
Shanghai	182	5.54	>20	35	1.07
Chongqing	113	3.44	Total	3284	100
North China	343	10.44			
Northeast China	387	11.78	Employee number	Number	Percentage
East China	878	26.74	<100	2093	63.73
Central China	345	10.51	100-1000	1063	32.37
South China	365	11.11	>1000	128	3.90
Southwest China	220	6.70	Total	3284	100
Northwest China	242	7.37			
Total	3284	100			

Table 3. Descriptive statistics.

	count	mean	s.d.	min	p25	p50	p75	max
ROS	3284	0.09	0.22	-0.72	0.01	0.04	0.12	1.00
ROE	3284	0.25	0.71	-0.34	0.00	0.03	0.18	4.15
CV	3284	0.12	0.36	0.00	0.00	0.00	0.07	2.53
ALERTNESS	3284	5.04	3.28	0.00	3.00	5.00	7.00	10.00
INSTITUTION	3284	7.18	1.83	0.00	6.10	6.89	8.67	9.95
EXPR_GOV	3284	0.54	0.50	0.00	0.00	1.00	1.00	1.00
SOCLSS	3284	5.50	1.77	1.00	4.33	5.67	6.67	10.00
EDU	3284	0.31	0.46	0.00	0.00	0.00	1.00	1.00
FAMOWN	3284	0.67	0.36	0.00	0.45	0.80	1.00	1.00
FORMALSTC	3284	0.50	0.32	0.00	0.33	0.33	0.67	1.00
LnEMPLOY	3284	4.24	1.30	2.30	3.14	4.09	5.14	7.75
HIS	3284	8.02	5.42	0.00	3.00	8.00	12.00	22.00
SIZE	3284	6.97	2.43	0.69	5.30	7.21	8.70	12.01
LEV	3284	0.48	1.39	0.00	0.00	0.00	0.33	10.12
EXPORT	3284	0.01	0.03	0.00	0.00	0.00	0.00	0.17
FRINVST	3284	0.05	0.21	0.00	0.00	0.00	0.00	1.00

Table 4. Pearson correlation matrix.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.ROS	1															
2.ROE	0.201***	1														
3.CV	0.161***	0.233***	1													
4.ALERTNESS	0.120***	0.260***	0.279***	1												
5.INSTITUTION	-0.024	0.038**	-0.039**	0.064***	1											
6.EXPR_GOV	-0.024	0.022	0.032*	0.088***	0.051***	1										
7.SOCLSS	0.019	0.091***	0.069***	0.237***	0.106***	0.128***	1									
8.EDU	0.003	0.025	0.01	0.077***	0.017	0.109***	0.073***	1								
9.FAMOWN	0.024	0.045***	0.027	-0.003	0.095***	-0.044**	0.030*	-0.074***	1							
10.FORMALSTC	-0.073***	0.006	0.024	0.065***	-0.041**	0.058***	0.100***	0.070***	-0.147***	1						
11.LnEMPLOY	-0.009	0.111***	0.065***	0.216***	0.137***	0.133***	0.224***	0.115***	-0.035**	0.193***	1					
12.HIS	-0.01	0.045***	-0.009	0.178***	0.187***	0.163***	0.212***	0.02	0.042**	-0.005	0.253***	1				
13.SIZE	-0.111***	0.066***	-0.065***	0.293***	0.216***	0.154***	0.229***	0.144***	-0.039**	0.200***	0.239***	0.278***	1			
14.LEV	-0.033*	0.258***	0.065***	0.101***	0.067***	0.040**	0.091***	-0.026	0.036**	0.026	0.153***	0.095***	0.179***	1		
15.EXPORT	0.024	0.033*	0.028	0.059***	0.180***	0.011	0.112***	-0.024	-0.016	0.008	0.204***	0.100***	0.151***	0.097***	1	
16.FRINVST	0.035**	0.043**	0.030*	0.034**	-0.009	0.017	0.067***	0.012	-0.047***	0.02	0.108***	0.056***	0.067***	0.015	0.108***	1

* p< 0.10, ** p< 0.05, *** p< 0.01

Table 5. Working experience in governments, regional institutions and entrepreneurial alertness towards government policies.

	(1)	(2)	(3)	(4)
	ALERTNESS	ALERTNESS	ALERTNESS	ALERTNESS
EXPR_GOV	1.492*** (11.68)		0.867*** (8.32)	3.203*** (8.83)
INSTITUTION		-0.750*** (-4.93)	-0.655*** (-8.45)	-0.260** (-2.56)
EXPR_GOV * INSTITUTION				-0.375*** (-6.83)
SOCLSS	0.191*** (4.80)	0.198*** (6.27)	0.176*** (5.61)	0.162*** (5.38)
EDU	0.179 (1.36)	0.249** (2.26)	0.191* (1.74)	0.207** (1.96)
FAMOWN	0.007 (0.04)	-0.027 (-0.20)	0.039 (0.28)	0.123 (0.92)
FORMALSTC	-0.128 (-0.65)	-0.020 (-0.12)	-0.045 (-0.28)	0.058 (0.37)
LnEMPLOY	0.515*** (7.12)	0.427*** (7.24)	0.426*** (7.30)	0.429*** (7.64)
HIS	0.027** (2.28)	0.028*** (2.77)	0.020** (2.01)	0.025** (2.56)
SIZE	0.121*** (2.88)	0.093*** (2.85)	0.076** (2.34)	0.050 (1.61)
LEV	0.085 (1.60)	0.092** (2.57)	0.089** (2.51)	0.080** (2.35)
EXPORT	-0.946 (-0.47)	0.285 (0.16)	0.195 (0.11)	0.511 (0.29)
FRINVST	0.078 (0.27)	0.101 (0.45)	0.086 (0.39)	-0.024 (-0.11)
Σ-0.11)YC	Included	Included	Included	Included
_cons	-0.360 (-1.26)	5.982*** (11.11)	5.148*** (8.39)	2.635*** (3.86)
pseudo R ²	0.04	N.A.	N.A.	N.A.
F	55.81***	N.A.	N.A.	N.A.
LR test (chi2)	N.A.	331.03***	279.16***	117.76***

	(1)	(2)	(3)	(4)
	ALERTNESS	ALERTNESS	ALERTNESS	ALERTNESS
<i>N</i>	3284	3284	3284	3284
Number of groups	N.A.	5	5	31
Obs per group: min	N.A.	108.1	108.1	5
Avg	N.A.	420	420	108.1
Max	N.A.	5	5	420
chi2	N.A.	672.33	587.22	866.89
Log restricted-likelihood	-8112.53	-8297.12	-8263.38	-8131.85

Model (1) presents the result of the Tobit regression.

Model (2), Model (3) and Model (4) present the results of the multi-level hierarchical linear modelling (HLM).

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6. Entrepreneurial alertness towards government policies, corporate venturing and firm performance (ROS).

	(1)	(2)	(3)	(4)	(5)	(6)
	CV	CV	ROS	ROS	ROS	ROS
ALERTNESS		0.065*** (12.40)			0.010*** (7.37)	0.008*** (6.09)
CV				0.084*** (4.25)		0.065*** (3.24)
INSTITUTION	0.001 (0.11)	0.001 (0.19)	-0.001 (-0.45)	-0.000 (-0.23)	-0.001 (-0.43)	-0.001 (-0.27)
EXPR_GOV	0.053** (2.22)	0.043* (1.94)	-0.006 (-0.82)	-0.008 (-1.10)	-0.008 (-1.04)	-0.009 (-1.21)
SOCLSS	0.039*** (4.77)	0.024*** (3.21)	0.007*** (2.89)	0.006** (2.36)	0.005** (2.14)	0.005* (1.89)
EDU	0.010 (0.37)	-0.009 (-0.38)	0.010 (1.25)	0.009 (1.12)	0.008 (0.97)	0.008 (0.93)
FAMOWN	0.077** (2.29)	0.074** (2.32)	0.008 (0.71)	0.005 (0.50)	0.008 (0.69)	0.006 (0.53)
FORMALSTC	0.045 (1.22)	0.045 (1.27)	-0.039*** (-3.51)	-0.042*** (-3.83)	-0.039*** (-3.53)	-0.041*** (-3.78)
LnEMPLOY	0.149*** (9.28)	0.120*** (8.44)	0.023*** (5.46)	0.018*** (4.33)	0.019*** (4.31)	0.016*** (3.68)
HIS	-0.000 (-0.10)	-0.002 (-1.04)	0.001 (0.87)	0.001 (0.95)	0.000 (0.46)	0.000 (0.60)
SIZE	-0.046*** (-4.83)	-0.054*** (-5.98)	-0.021*** (-6.12)	-0.017*** (-5.12)	-0.022*** (-6.46)	-0.019*** (-5.65)
LEV	0.030*** (3.17)	0.021** (2.34)	-0.003 (-1.31)	-0.005** (-2.09)	-0.004* (-1.87)	-0.005** (-2.38)
EXPORT	0.484 (1.24)	0.556 (1.52)	0.184 (1.33)	0.168 (1.26)	0.196 (1.44)	0.182 (1.37)
FRINVST	0.077 (1.51)	0.083* (1.73)	0.031* (1.77)	0.028* (1.73)	0.031* (1.84)	0.029* (1.79)
Σ1.79)TYC	Included	Included	Included	Included	Included	Included
_cons	-0.836*** (-10.84)	-0.874*** (-11.62)	0.115*** (5.07)	0.112*** (4.96)	0.107*** (4.77)	0.106*** (4.75)
adj. R^2 (pseudo R^2)	0.05	0.12	0.03	0.05	0.05	0.06

	(1)	(2)	(3)	(4)	(5)	(6)
	CV	CV	ROS	ROS	ROS	ROS
F	15.02***	18.56***	5.95***	6.52***	10.16***	9.45***
N	3284	3284	3284	3284	3284	3284

Model (1) and Model (2) present the result of the Tobit regression.

Model (3) to Model (6) present the result of the OLS regression.

t statistics in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7. Entrepreneurial alertness towards government policies, corporate venturing and firm performance (ROE).

	(1)	(2)	(3)	(4)	(5)	(6)
	CV	CV	ROE	ROE	ROE	ROE
ALERTNESS		0.065*** (12.40)			0.076*** (14.37)	0.039*** (10.39)
CV				1.232*** (4.03)		1.135*** (2.80)
INSTITUTION	0.001 (0.11)	0.001 (0.19)	0.007 (1.01)	0.013** (2.53)	0.007 (1.10)	0.013** (2.50)
EXPR_GOV	0.053** (2.22)	0.043* (1.94)	0.003 (0.13)	-0.026 (-1.36)	-0.009 (-0.39)	-0.030 (-1.61)
SOCLSS	0.039*** (4.77)	0.024*** (3.21)	0.022** (2.56)	0.000 (0.07)	0.006 (0.81)	-0.006 (-0.93)
EDU	0.010 (0.37)	-0.009 (-0.38)	0.046* (1.66)	0.029 (1.38)	0.028 (1.07)	0.021 (1.02)
FAMOWN	0.077** (2.29)	0.074** (2.32)	0.070** (2.18)	0.035 (1.47)	0.068** (2.24)	0.037 (1.57)
FORMALSTC	0.045 (1.22)	0.045 (1.27)	-0.013 (-0.34)	-0.051* (-1.68)	-0.013 (-0.34)	-0.048 (-1.61)
LnEMPLOY	0.149*** (9.28)	0.120*** (8.44)	0.062*** (3.99)	-0.013 (-1.06)	0.026* (1.86)	-0.025** (-2.11)
HIS	-0.000 (-0.10)	-0.002 (-1.04)	-0.000 (-0.09)	0.000 (0.20)	-0.003 (-1.04)	-0.001 (-0.43)
SIZE	-0.046*** (-4.83)	-0.054*** (-5.98)	-0.027*** (-2.99)	0.025*** (4.34)	-0.035*** (-4.07)	0.017*** (3.01)
LEV	0.030*** (3.17)	0.021** (2.34)	0.128*** (6.79)	0.105*** (6.01)	0.120*** (7.15)	0.102*** (6.24)
EXPORT	0.484 (1.24)	0.556 (1.52)	-0.285 (-0.57)	-0.506 (-1.37)	-0.188 (-0.40)	-0.439 (-1.21)
FRINVST	0.077 (1.51)	0.083* (1.73)	0.108 (1.46)	0.071 (1.14)	0.109 (1.58)	0.075 (1.23)
∑1.23)TYC	Included	Included	Included	Included	Included	Included
_cons	-0.836*** (-10.84)	-0.874*** (-11.62)	-0.110* (-1.68)	-0.163*** (-3.13)	-0.173*** (-2.76)	-0.190*** (-3.71)
adj. R^2 (pseudo R^2)	0.05	0.12	0.08	0.45	0.19	0.48

	(1)	(2)	(3)	(4)	(5)	(6)
	CV	CV	ROE	ROE	ROE	ROE
F	15.02** *	18.56** *	8.55***	61.48** *	22.97** *	59.78** *
N	3284	3284	3284	3284	3284	3284

Model (1) and Model (2) present the result of the Tobit regression.

Model (3) to Model (6) present the result of the OLS regression.

t statistics in parentheses

* p < 0.10, ** p < 0.05, *** p < 0.01